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## SUSTAINABLE MANAGEMENT OF GOA'S COASTS-ISSUES AND CHALLENGES

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**Abstract:** Goa, situated along the west coast of India, has a small coastline of about 105 km. The coastal zone of Goa has enormous ecological and economic significance. Sustainable management of the biological diversity along the coasts is vital for sustainable development of the Goan economy. Until the early 1970s Goa's coastline was untouched by the long arms of development. However, since then, haphazard construction, unbalanced tourism, faulty policies, mismanagement, vested interests and powerful lobbies have continued to destroy the ecological wealth along the coasts, eroding the sand dunes, mangroves and plantations. There are growing concerns that Goa's coastline has become fragile and unsustainable. The coastal zone of Goa has progressed economically, but often it has been pointed out that this development has been at a largely irreversible environmental cost. There are questions about the sustainability of the economic activities like tourism and fishing, consequent to the degradation of Goa's Coasts.

Although Coastal Regulatory Zone (CRZ) laws and regulatory institutions are in place, there have been number of cases and reports of illegal constructions and illegal sand mining activities in the CRZ areas. Landowners, high profile builders, tourism operators and event managers, collude with the politicians and administrators to convert Goa's shores into huge monetary wealth for themselves, unmindful of the future consequences.

The paper aims to investigate a sample of recent reported cases of CRZ violations and to examine the legal and institutional mechanisms to deal with the same. It attempts to analyze the issues and challenges that come in the way of effective coastal management in the State while seeking to highlight the imperatives of sustainable management of Goa's coasts.

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**Introduction:** Goa is located along the Konkan coastal belt on the western coast of India. It is bounded on the North by Sindhudurg district of Maharashtra state, on the West by the Arabian Sea, on the South by Karwar district of Karnataka state and on the East by Belgaum district of Karnataka state. It is intersected by a number of rivers flowing westwards providing a network of internal waterways on the coastal plains. The rivers such as Mandovi, Tiracol, Zuari, Chapora, Sal and Talpona divide into various estuaries and bays, adding to the beauty of the coastline. The coastal zone comprises an intricate system of wetlands and lowlands, tidal marshes, cultivated paddy fields, intertidal beaches, canals, inland lakes, bays, lagoons and creeks. Several mangrove islands and mangrove swamps can be found along all the rivers. The coastal zone of Goa has enormous ecological and economic significance. However, tourism and the resultant construction boom along the coastline have brought about large scale changes in the geological and ecological set up of the state. There is increasing concern among Goans about the unregulated commercial activities along the coast line which has eroded the sand dunes and vegetation, destroying much of the coasts' natural defense system. Environmental activists point out that the number of structures in the coastal villages of Goa has almost doubled in the 15 years since the 1991 Coastal Regulatory Zone (CRZ) notifications. During 1991-2006, structures between 200 m and 500 m of the high tide line increased from more than 4,000 to 8,000. In North Goa, the number has increased from about 2,500 in 1991 to more than 4,500 in 2006, while in South Goa, the structures have

increased from 1,643 to 3,470 during the same period. There are several other reported cases of violations till date.

In view of the above, this paper attempts to investigate the implementation process of the CRZ regulations and the reasons for the reported rampant violations in Goa.

**Objectives and Methodology:** The paper aims to examine the legal and institutional mechanisms in place to regulate Goa's coastal zones. It investigates selected cases of CRZ violations in Goa and examines the role of the concerned authorities in dealing with the same. It aims to highlight the need for effective regulation of Goa's delicate coastline and to maintain its ecological balance in order to ensure the sustainability of tourism, fishing and other economic activities over the long run.

The paper is descriptive and analytical and is based on a compilation of opinions gathered from personal interviews with concerned citizens and activists, facts and records derived from newspaper reports, journal articles and governmental publications, reviews of literature on the subject matter as well as secondary data collected from Goa Pollution Control Board, Goa Coastal Zone Management Authority and environmental NGOs.

**The Imperatives of and Strategies for Coastal Management - A Review of Literature:** Over 60 percent of the world's population is estimated to be living near coastal areas exerting unprecedented pressure on the coastal and marine environment. Coastal ecosystems are highly productive containing high biological diversity, rich fishery resources and significant seabed minerals. Coasts also support a

diverse array of related industries such as fisheries and aquaculture, tourism, shipping, oil and gas industries, which provide enormous economic productivity. However, the shared demands placed by densely populated coastal regions impose stresses on finite coastal systems and resources. For example, at a global level, 48 percent of fish stocks are fully exploited and 28 percent are depleted, overexploited or recovering (FAO, 2001). Water quality is impacted by pollution from ships and pollution from land-based sources (e.g. intensification of agricultural practices contributes to the impact of nutrient loading and eutrophication of estuaries and bays).

Clearly this justifies the current emphasis at global, regional and national levels on the need for coastal management. The increasing pressures on the coastal and marine environment not only threatens human health in densely populated coastal areas and the survival of many of the ocean's living resources, it also accelerates climate change that is detrimental to the ecosystem. (Vallega 1999). A recent report released by the Indian Network for Climate Change Assessment stated that the sea level along the Indian coast has been rising at the rate of 1.3 mm per year and is likely to rise in consonance with the global rise in sea level in the future

There is increasing concern about the unprecedented scale of development in the name of tourism and development along Goa's coasts. Consequently, Goa is faced with serious problems of habitat destruction, water contamination, coastal erosion and resource depletion. It appears that there has been a lack of knowledge on proper coastal management, inappropriate and uncoordinated laws, a failure to involve stakeholders, and a lack of coordination between the administrative bodies. 'Sectoral practices, partisan policies, unbalanced tourism, and absence of political will have all contributed to the CRZ being breached.' (Mascarenhas 1999). Until the early 1970s Goa's coastline was largely untouched by the long arms of development. Human pressures on the coastal ecosystems of Goa started in the late 1970s when tourism became a major source of revenue. Since then, there has been a proliferation of hotels, resorts, residential flats, dwellings, small restaurants, beachside bars, roads and beach shacks along the coast. This is because most tourism and associated activities are concentrated along sandy stretches. Over 90% of domestic tourists and 99% of international tourists visit and reside along the beach front. Although up market tourism and related activities have brought in a number of positive benefits in the form of employment-related opportunities, coastal developmental activities have induced notable environmental and societal problems. Several surveys conducted by the National Institute of Oceanography (NIO) as well by the

environmental NGOs indicate that several coastal areas are overcrowded due to a haphazard growth of structures, resulting in undesirable over-urbanization of coastal regions, loss of biodiversity, deterioration in the quality of life and adverse effects on beaches and dunes, mangroves, water bodies and khazan lands (Mascarenhas, 1999).

An FAO technical report (1992) on integrated management of coastal zones highlights the benefits from integrated coastal management. Fisheries productivity, increased tourist revenues, sustained mangrove forestry, and security from natural hazard devastation are among the practical benefits of Integrated Coastal Zone Management (ICZM). Goa can avert a long term environmental and economic disaster only if ICZM is followed keeping these long term goals in mind rather than just pursuing short term gains.

McHarg (1969) points out that the most cost-effective approach to coastal development and coastal engineering is one that respects the strength of natural forces operating at the coast and that designs projects to utilize or adapt to these forces - this is the "nature-synchronous" or "design with nature" approach. He points out that the beachfront is a place of extraordinary release of natural energy and a place where mistakes can be very costly. Special risks are attached to development on the ocean beachfront, where buildings are directly in the path of storm-driven waves. Beaches and dunes shift with changes in the balance between the erosive forces of storm winds and waves, on the one hand, and the restorative powers of tides and currents, on the other. Consequently, along much of its length, the coast is a risky place to maintain habitation. For beach projects, the soft engineering approach recognizes that the natural beachfront exists in a state of dynamic tension, continually shifting in response to waves, winds, and tide and continually adjusting back to an equilibrium state. Long term stability is gained by holding the slope or profile of the beach intact by balancing the sand reserves held in various storage elements - dune, berm, offshore bar, and so forth. Each component of the beach profile is capable of receiving, storing and giving sand, depending on which of several constantly changing forces is dominant at the moment. The storage capacity of each of the components must be maintained at the highest possible level. This can be facilitated in some cases by proper design in locating wave absorbing structures (rip-rap) rather than wave-reflecting structures (concrete bulkheads). Many applications of nature-synchronous engineering approaches for beach stabilization can be cited; for example, harbour inlet stabilization, dune management, and beach replenishment. There are other applications such as vegetated storm water drainage ways and buffer

strips (instead of concrete ditches), mangrove buffer strips along channels (instead of bulkheads), and retention of flood plains to store flood waters (rather than concrete storm water canals). Most soft engineering approaches have less damaging impact on coastal renewable resources than hard approaches. To sum up the study implies that in both planning and in management (project review/environmental assessment) phases, preference should be given to nature-synchronous options. Unfortunately in Goa, the authorities are turning a blind eye to the threats from excessive commercialization and legal and illegal constructions along the shores by razing the sand dunes and harming the natural processes.

Stojanovic et al (2004) in a study based on secondary review of studies on coastal management point out to the role of public participation in coastal management where there are opportunities for common contribution and balanced sharing of activities. The basic premise behind participation is that when stakeholders participate broadly in the formation of Integrated Coastal Management (ICM) strategies and plans, they are more likely to support implementation. The process of participating allows conflicts to be resolved, as people discuss eventualities rather than just informing one another of a finalized course of action. Such interactions provide an opportunity for the dissemination of scientific knowledge or for the exchange of traditional ecological knowledge. Participation is a tool available to the entire management community (resource users, public agencies, non-governmental organizations, etc.) to ensure the effectiveness of management solutions. This observation is particularly pertinent in the Goan context where there are several conflicts of interest among various groups which hamper effective coastal management. Involvement of all the stakeholders rather than only selected groups or individuals in ICM is considered a better strategy.

Research by Christie et al (2005) documents that institutional and legal frameworks that mandate governance reform are lagging behind the pace of ICM project evolution—to the point that sustained progress is being undermined. From their study of coastal management strategies in the Philippines and Indonesia, they conclude that in developing countries laws that would encourage sustainable resource use are increasingly adopted and enforced at local levels, but remain underdeveloped at the national level. When laws and policies are developed at the national level, they do not always strengthen local management efforts. In fact, they may even contradict local initiatives that are successful. Overarching barriers that limit the effectiveness of coastal management strategies include: generally

weak institutional capacities at all levels, competing concerns within each level of government for budget and personnel, lack of common understanding about the need or urgency for ICM, and the lack of monitoring and evaluation of the ICM program. All these issues reflect institutional culture and practices that do not change rapidly and are embedded within many developing countries. This appears to be the major factor causing failure of coastal management strategies in India as well. Although ambitious national laws are in place, they fail to get implemented effectively at the State level.

#### **An Overview of the Legal and Institutional Coastal Regulatory Mechanisms:**

**CRZ Notifications and Amendments:** In 1981, a letter from the then Prime Minister, Mrs. Indira Gandhi to the Chief Ministers of coastal states directed that, owing to their aesthetic and environmental value, beaches had to be kept clear of all activities up to 500 m from the highest water line. Subsequently, the Ministry of Environment and Forests (MoEF) enacted the Coastal Regulatory Zone (CRZ Notification 1991) issued under the Environment Protection Act of 1986. Its main purpose was to control, minimize and protect environmental damage to sensitive coastal stretches from unplanned human interference. The Government of India therefore declared coastal stretches of seas, bays, estuaries, creeks, rivers and backwaters which are influenced by tidal action (in the landward side) up to 500 m from the High Tide Line (HTL) and the land between Low Tide Line (LTL) and HTL, as CRZ. The notification also imposed restrictions and formulated guidelines for various coastal activities. There have been about 25 amendments to this notification between 1991 and 2009, some of which have been based on the directions of the Supreme Court.

However, the following issues emerged while implementing the 1991 Notification:

- The 1991 Notification stipulated uniform regulations for the entire Indian coastline which includes 5500 Km coastline of the mainland and 2000 Km of coastline of the islands of Andaman & Nicobar and Lakshadweep. It, therefore, failed to take into account that the Indian coastline is highly diverse in terms of biodiversity, hydrodynamic conditions, demographic patterns, natural resources, geomorphological and geological features.

- In the 1991 Notification, no clear procedure for obtaining CRZ clearance was laid down and no time lines stipulated. Furthermore, there was no format given for the submission of clearance applications. It may be noted that the 1991 Notification, also did not provide a post clearance monitoring mechanism or a clear cut enforcement mechanism to check violations.

-The restrictive nature of the 1991 Notification caused hardships to the persons/ communities living in certain ecologically sensitive coastal stretches. These included slum dwellers and other persons living in dilapidated and unsafe buildings in Mumbai, communities living in islands in the backwaters of Kerala, local communities living along the coast of Goa and other traditional coastal inhabitants.

-Under the 1991 Notification, the responsibility for implementation was primarily assigned to state governments. The biggest problem however was that the CRZ notification was completely ignored by the state governments responsible for implementation. This particularly came to light because of a Public Interest Litigation (PIL) filed by the Indian Council for Enviro Legal action V/s Union of India. The petitioner was a NGO which argued that due to non-implementation of CRZ notification 1991 the development activities within the coasts remained unregulated. Another landmark decision that drew attention to the lack of implementation was the effect of the PIL filed by S. Jagannath v. Union of India. In this case the petitioner (again a non-profit organisation) sought the enforcement of the CRZ Notification, 1991 before the Supreme Court of India. The petitioner argued that intensive and semi-intensive shrimp farming in the ecologically fragile coastal areas must be prohibited. The Court ruled in favour of the petitioner and observed that the purpose of the CRZ Notification is to protect the fragile coastal areas and those activities that cause environmental degradation cannot be permitted. Most importantly, the Court ordered the Central Government to constitute an authority under Section 8(3) of the Environment (Protection) Act, 1986 and to confer on the said authority all the powers necessary to protect the ecologically fragile coastal areas, seashore, waterfront and other coastal areas. In the aftermath of these decisions, the National Coastal Zone Authority (NCZMA) and State Coastal Zone Authorities (SCZMA) were set up in order to administer and implement the CRZ Notification. The SCZMAs were directed to prepare Coastal Zone Management Plans (CZMP) in order to identify and classify the CRZ areas in the respective State.

In 2009, the Ministry of Environment and Forests (MoEF) established a committee under the leadership of the renowned scientist M.S. Swaminathan to review the scientific, legal, and policy provisions of the CRZ Notification, 1991. Following a scientific report by the committee a draft Notification was issued by the MoEF in May 2010. Between May 2010 and January 2011, the MoEF held public consultations and deliberations with stakeholders representing different sectors and various regions. As a result on 6

January 2011 yet another amended CRZ Notification was published in the Gazette of India.

The main objectives of the CRZ Notification, 2011 as stated by the MoEF are: a) to ensure livelihood security to the fishing communities and other local communities living in the coastal areas, b) to conserve and protect coastal stretches, and c) to promote development in a sustainable manner, based on scientific principles and taking into account the dangers of natural hazards in the coastal areas and sea level rise due to global warming. The CRZ 2011 lays down a detailed procedure for obtaining approval for developmental projects falling within the limits of the Coastal Regulation Zone. Moreover, post clearance monitoring and enforcement mechanisms have been established. A new category called 'areas requiring special consideration' has been introduced in the 2011 Notification. Its purpose is to provide a special regime for the most critical coastal environments covering the CRZ areas of Greater Mumbai, Kerala and Goa. The 2011 Notification provides states with clear guidelines for the preparation of Coastal Zone Management Plans. It also puts in place concrete measures to combat industrial pollution from land-based activities in order to prevent erosion and other forms of environmental degradation in coastal areas.

Under the 2011 notification the coastal area is demarcated into four zones. CRZ-I includes the 'areas that are ecologically sensitive and the geomorphological features which play a role in the maintaining the integrity of the coast; for example, mangroves, corals and coral reefs and associated biodiversity, sand dunes, etc. In addition, CRZ-I also includes the area between Low Tide Line and High Tide Line. The 2011 Notification states that the development or construction activities in CRZ-I shall be regulated by the concerned CZMA.

CRZ-II includes the areas that have been developed up to or close to the shoreline. 'Developed area' refers to that area within the existing municipal limits or in other existing legally designated urban areas that are substantially built-up and have been provided with drainage and approach roads and other infrastructural facilities, such as water supply and sewerage mains. Activities and structures permitted in CRZ-II are, for example, the construction or reconstruction of buildings, facilities for receipt and storage of petroleum products, and notified ports. CRZ-III includes those areas that are relatively undisturbed and do not fall under Category I or II. It also includes rural and urban areas that are not substantially developed. For these areas, the Notification establishes a 'No Development Zone' within the area up to 200 m from the HTL on the landward side in the case of seafront and 100 m along tidal influenced water bodies or width of the



creek, whichever is less. In these areas, no constructions shall be permitted except for the repair or reconstruction of existing authorised structures. However, the construction or reconstruction of dwelling units of traditional coastal communities (including fisherfolk) may also be permitted. This (qualified) general ban is followed, again, by an extensive list of activities which may be permitted in the 'No Development Zone'. Projects besides small-scale projects include, inter alia, agriculture, horticulture, gardens, projects relating to the Department of Atomic Energy, the mining of rare minerals, salt manufacture from seawater, and facilities for generating power by non-conventional energy sources, bridges, and roads.

CRZ-IV includes the water area from the Low Tide Line to twelve nautical miles on the seaward side. It also includes the water area of the tidal influenced water body from the mouth of the water body where it meets the sea up to the influence of the tide. In CRZ-IV areas, activities impugning on the sea and tidal influenced water bodies, no untreated sewage, effluents, ballast water, ship washes, as well as solid waste from 'all activities' shall be let off or dumped. Coastal towns and cities are required to formulate sewage treatment plans and implement them within a period of one year. Traditional fishing rights of local communities shall not be restricted.

#### **The special dispensations given to Goa:**

- Since the traditional occupation of the population along the coast is fishing and allied activities and fishing communities require basic infrastructure facilities for their livelihood, such facilities shall be provided by the government of Goa.
- Reconstruction, repair of the structures of local communities shall be permissible in CRZ areas.
- The eco sensitive low lying areas influenced by tidal action called Khazan Land shall be mapped. No development activity shall be permitted in the khazan land.
- No activity shall be permitted in sand dune areas.
- Beaches such as Mandrem, Morjim, Galgibag, and Agonda have been designated as turtle nesting sites. These areas shall be surveyed and management plan prepared for protecting these sites. No development activity shall be permitted in these areas.

In spite of the massive exercise undertaken in 2011, amendments continue to be introduced to the new notification. The new changes relate to the transfer of substantial decision-making powers for specific projects to the State Environment Impact Assessment Authorities (SEIAAs). The amendments were also for the construction of beach resorts within 200 metres of High Tide Line in CRZ II (municipal areas), which was otherwise restricted under the existing guidelines of the CRZ notification.

It is to be noted that the amendments do not push for institutional reform for better implementation and outcomes, nor do they take into account the need for multiple levels of institutions.

**The Institutional Mechanisms for regulating CRZs:** The CRZ Notification 1991 did not provide for the constitution of any regulatory institution. The Notification stated that the development activities in CRZ area to be regulated by the state Government. The Supreme Court, in 1996, in an order directed that State Coastal Zone Management Authorities (SCZMA) and a National Coastal Zone Management Authority (NCZMA) to be set up. Accordingly these bodies were first constituted by the MoEF on November 26, 1998.

CZMAs are the primary institutions through which the implementation of CRZ Notification is carried out in all coastal states of India. NCZMA is currently a part time body with mostly ex-officio members, comprising of representatives of government Departments. It has the power to take necessary action for protecting and improving the quality of coastal environment and preventing, abating and controlling environmental pollution. It is responsible for the coordination of actions of SCZMA and providing technical assistance to them whenever necessary. It is also authorized by the MoEF to examine Proposals received from the SCZMA for changes and modification in the classification of CRZ areas and in the Coastal Zone Management Plans (CZMPs) and formulating area specific management plans. The NCZMA was expected to put in place general planning guidelines against which the SCZMA could examine project proposals to be located in CRZ. However till date the guidelines have not been prepared or are not available in public domain.

The NCZMA has decided that SCZMA should include one NGO, 4 experts, 6 ex-officio members from various government departments viz, Department of Environment, Urban Development, Fisheries, Industry, Pollution Control Board and Local bodies. It was also decided that the Secretary and the Director of the Department of Environment of the state concerned will function as chairman and member Secretary of SCZMA. In a study done by Centre for Policy Research- Namati Environment Justice Programme 2015, found that none of the states have complied with composition requirement in full. Some states either do not have NGO Representative or have less than prescribed expert members. The study also notes that in case of Goa, the NGO Goa Foundation was dropped from GCZMA during its recent constitution in 2013. This was despite the fact that Goa Foundation was instrumental in pushing the state government to prepare and submit its CZMPs well before other states in 1992.

The SCZMAs are entrusted with certain main functions such as examining of proposals for change in CRZ areas and making recommendations, Inquiry into cases of alleged violations, filing of complaints in case of non-compliance, taking actions to verify violations, identification of areas vulnerable to erosion and degradation, identification of ecological sensitive areas-specific management plans, directing all concerned authorities, bodies, etc to ensure compliance with CRZ Notification etc.

One of the most significant changes brought in by the 2011 CRZ notification was the introduction of the new institution, the District Level Coastal Committee (DLCC). DLCCs were introduced by the new Notification in order to support the huge burden of work and realize the lofty objectives of CRZ Notification. In the absence of DLCCs, this burden rested on the water thin and distant institution such as the CZMA in the state capitals (Menon et al 2015). Despite the agreement to have district level bodies as part of new CRZ Notification and implementation mechanism, there was no follow up by several state governments including Goa on this crucial and progressive aspect of the CRZ notification. It is not surprising therefore the issue has failed to make any appearance in the recent amendments clarifying institutional roles.

**Issues and Challenges to Goa's Coastal Management-Some Key Observations:** The threats to sustainability of Goa's coasts and the coastal economy can be attributed to manmade factors. According to the green activists and concerned citizens, actions like the following are spelling doom to Goa's coasts;-

- Reclamation of low-lying areas and mangroves to give rise to concrete jungles as seen at Patto Plaza, Panaji and other mangrove regions in the coastal talukas of Goa.
- The degradation of coastal sand dunes and indigenous vegetation which play a role in preventing seawater rise, wind erosion and the adverse impacts of flooding. Several 5-star hotels which occupy prime locations along the coast line, have blatantly bulldozed these sand dunes and vegetation, thus exposing the adjoining coastal stretches of Goa to the vagaries of monsoon winds and eroding waves of the Arabian Sea.
- Cutting of hills for mining and housing has severely affected the fresh water discharge and distribution into water bodies and sea. Rapid urbanization has meant concretizing of hills which in turn implies that the hills have lost the ability to absorb and harness monsoon waters. The tremendous monsoon runoff places acute pressure on Goan beaches. Further, mining has not only flattened hills, but caused silting of rivers and become the main cause of unscientific

discharge of fresh water into the sea and the consequent erosion of beaches along the coast of Goa.

- Land conversions which are detrimental to the ecological balance. The super rich want to own a second home/holiday cottage in Goa. The investors, mostly non-Goans want to build cottages/apartments so as to rent these out at high rates. Even among the locals, the lure of money is stronger than the love of their homeland. Traditional livelihoods of coconut and rice farming are receding as farmlands along the coast are being converted into real estate. Permissions for real estate projects are blatantly given often with scant regard to the coastal laws. For instance according to newspaper reports, there are proposals for conversion of 675 hectares (33%) of Mandrem's 2,031 hectares from settlement zone to other purposes. Besides, other coastal villages of Pernem also want large tracts, even in no development zones, converted. This is because villagers feel that they not got a sizeable share of the tourism cake. In Arambol, out of 950 hectares, private parties and the panchayats have sought change of land use to the tune of 120 hectares out of 576 hectares. Such massive land conversions are bound to lead to destruction of eco-sensitive areas.
- Although there are laws which state that no authority, including Panchayats, had the permission to approve new constructions or houses in coastal villages that fall within 500 meters of high tide line, there are blatant violations under the guise of renovation or repairs of existing structures, hotels, shops and resorts. It is pointed out that the state government is giving special status to structures, which have violated CRZ norms. There are hundreds of illegal constructions in CRZ areas. Almost all these are "old houses" which existed prior to CRZ Notification 1991, which have been extended or many a time renovated into bigger structures.
- We found that Goa Coastal Zone Management Authority set up to monitor CRZ violations, have been constantly issuing demolition notices to structures built illegally within CRZ areas. For instance, some resorts in Morjim area were directed to demolish their structures, But they have gone into appeal and then the matter drags on for years.
- While small hutments and other small constructions were swiftly demolished the big and powerful get away with illegalities. For instance, the Supreme Court had found enough reason to direct the demolition of illegal extension of Hotel Cidade de Goa within 3 months of its ruling. However, around a month after the judgment; the

Goa government issued an ordinance amending a 114 year law. The amendment to the Land Acquisition Act of 1894 saved the hotels illegal extensions from demolition. The amendment sought to validate the development and construction done by the company as being undertaken in accordance with the agreement. Similarly the Supreme Court had ruled against the illegal constructions of Goa Marriot Hotel and the blocking of Public access to the beach. However, the Government again played its cards to protect the hotel. With active government support thus beaches in Goa have become private property of the rich and powerful. These are just examples which show how the government which is supposed to be protector is actually a plunderer.

- As per the Centre for Policy Research-Namati Report, The SCZMA, in view of the local needs, allowed sewage treatment plants in violation of CRZ.
- The Government of Goa has a target of attracting six million tourists annually. New projects like Sea planes, amphibian vehicles, marinas, and golf courses are being promoted in Goa without assessing the social and environmental impacts of the same. Recently the Chief Minister of Goa has stated that he will try to seek special CRZ relaxation for the Coastal beach Belt on the grounds that Goa is a tourist destination
- The Government has promulgated the regularization of unauthorized structures and Encroachment Bill, 2015, which activists term is a Death warrant against the protection of Goa's Coasts

The major reasons for the several reported cases of violations can be stated as follows:

1. **Lack of will in implementing the CRZ norms:** In order to serve vested interests, the notification is not being seriously implemented, although in force since 1991.
2. **Lack of an integrated coastal management approach:** Several agencies and authorities appear to be working in isolation without adopting an integrated approach. For instance although the fishing community are the main stakeholders in coastal management, the Department of Fisheries is not represented in the Goa SCZMA.
3. **Short sighted approach:** Due to lack of awareness and ignorance about the intrinsic value of coastal ecosystems, policy and planning

decisions are based on short term economic gains. Long term value of resources is rarely considered.

4. **Unbalanced growth of tourism and faulty tourism policies:** Beach tourism is the major activity that is being promoted. This has led to a concentration of resorts and undesirable pressures on coastal strips.
5. **Politician-builder nexus:** Powerful lobbies of builders and resort owners, who have invested heavily in coastal areas, are mainly responsible for construction of illegal structures and for flouting environmental guidelines. No action is taken against them.
6. **Clearances to projects without due environmental impact assessment:** Permissions are given for mega projects in a hurry to make a fast buck without appropriate scrutiny on the impact on coastal resources and habitats are hard to find.
7. **Institutional failure in the delivery of outcomes:** The NCZMA has always faced resource crunch in terms of staff, infrastructure and funds, especially due to its part time nature. Whenever the concerned state authorities are questioned about the violations they pass the buck stating that the SCZMA is a centrally appointed agency and that they do not have the power to issue directives to it. Thus, there is lack of clear accountability.

**Conclusion:** It is obvious that the administration in Goa has failed in coastal management on account of their wrong priorities. In fact the Governmental regimes have played a proactive role in facilitating and acquiring coastal land for private players. New innovative projects to promote tourism like marinas and sea planes are on the anvil with scant consideration to their biodiversity impacts or the carrying capacity of the beaches. We are of the opinion that such brutal exploitation of coastal resources for economic gains over the long run. The ecological and economic sustainability of Goa therefore is under severe threat. It is however heartening to see some NGOs and activists who are spearheading the fight to save whatever is left of Goa's delicate coast line. It is imperative that people become more vigilant aware of the perils of excessive development and lend them their support. It is only a people's movement that can compel the government to reexamine its policies, strategies, assumptions, and goals which are often shortsighted. It is high time to turn the tide of coastal destruction before the tide turns against us!

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