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**COASTAL REGULATION ZONE NOTIFICATION: A SCANTY
REGIME**

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DECLARATION

I declare that this Dissertation titled “Coastal Regulation Zone Notification: A Scanty Regime” is researched and submitted by me to the National University of Advanced Legal Studies, Kochi in partial fulfilment of the requirement for the award of Degree of Master of Laws in Constitutional Law and Administrative Law, under the guidance and supervision of Ms. P.B. Arya, Assistant Professor and is an original, bona fide and legitimate work and it has been pursued for an academic interest. This work or any type thereof has not been submitted by me or anyone else for the award of another degree of either this University or any other University.

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PREFACE

“Earth provides enough to satisfy every man's needs, but not every man's greed” – Mahatma Gandhi.

The coastal areas are the support system for productive habitats such as mangroves and other marine species. Likewise there are people living near coastal areas due to their occupation. India has a coastline of about 7,500 km of which the mainland accounts for 5400 km, Lakshadweep coast extends to 132 km and Andaman and Nicobar Islands have a coastline of about 1900 km. The coastal areas are exploited for various purposes like industries, tourism. Recreation, fisheries, aquaculture, transportation etc. In addition, industrial expansion and unsustainable growth have led to the degradation of coastal zones and ecosystems surrounding them. The dynamic nature of coastal regions requires periodic surveillance to implement integrated coastal area conservation management plans. The rapid increase in population along with economic growth, urbanization and infrastructure have resulted in deterioration of ecosystem, intensity and frequency of natural disasters, habitat loss etc. The need for sustainable development to strike a balance between protection of environment and development projects is a need of the hour. Due to the deteriorating condition of the coastlines necessitated wise planning and regulation of coastal activities which led to the formulation of Coastal Regulation Zone (CRZ) Notification in the year 1991. This notification provides outline for the protection of coastal zones and it's laying down procedure. The CRZ Notification has been amended a number of times and to consolidate all the amendments the CRZ Notification 2011 came into force. Later the Central Government has constituted a committee under the chairmanship of Dr. Shailesh Nayak to examine the notification of 2011. The recommendations of the committee to overcome the shortcomings of 2011 notification, a new set of changes has been brought forward in the CRZ Notification 2019. The major question is that to what extent is the CRZ Notification is effective and to what extent can measures can be taken to overcome the drawbacks? What is the impact of CRZ Notification on coastal livelihood? The study seeks to answer these questions and suggestions for a balanced implementation of the notification and livelihood of people in coastal areas.

ABBREVIATIONS

CRZ	Coastal Regulation Zone
NFF	National Fish workers Forum
HTL	High Tide Line
Km	Kilometre
Mtr	Metre
MoEF	Ministry of Environment and Forests
CRZ-I	Coastal Regulation Zone – I
CRZ-II	Coastal Regulation Zone - II
CRZ-III	Coastal Regulation Zone - III
CRZ-IV	Coastal Regulation Zone - IV
CVCA	Critically Vulnerable Coastal Area
LTL	Low Tide Line
FSI	Floor Space Index
NDZ	No Development Zone
NGO	Non-Governmental Organisation
S-O	Statutory Order
POL	Petroleum, Oil and Lubricants
LNG	Liquefied Natural Gas
IPZ	Island Protection Zone
CZMA	Coastal Zone Management Authority
FAR	Floor Area Ratio
MoLJ	Ministry of Law and Justice
SEZ	Special Economic Zone
Ppt	Parts Per Thousand
SCZMA	State Coastal Zone Management Authority
NCZMA	National Coastal Zone Management Authority
MoES	Ministry of Earth Sciences

EIA	Environmental Impact Assessment
MoEFCC	Ministry of Environment Forest and Climate Change
NOS	National Ocean Service
US	United States
NOAA	National Oceanic and Atmospheric Administration
OCM	Office for Coastal Management
CZMP	Coastal Zone Management Program
UK	United Kingdom
CPA	Coast Protection Authority
DETI	Department of Enterprise, Trade & Investment
SMP	Shoreline Management Plan
ICZM	Integrated Coastal Zone Management
EU	European Union
SCC	Supreme Court Cases
CRZ – IA	Coastal Regulation Zone – IA
CRZ- IB	Coastal Regulation Zone – IB
UN	United Nation
CDC	Coastal District Committee
KCZMA	Kerala Coastal Zone Management Authority
Ors.	Others
NEERI	National Environmental Engineering Research Institute
KCZMP	Kerala Coastal Zone Management Plan
NOC	No Objection Certificate
SEIAA	State Environment Impact Assessment Authority
CWP	Civil Writ Petition

LIST OF CASES

- Indian Council for Enviro-Legal Action v. Union of India, 1996 (5) SCC 281.
- S.Jaganath v. Union of India & Ors, (1997) 2 SCC. 87.
- Goan Real Estate & Construction Ltd. & Another v. Union of India (2010) 5 S.C.C. 281.
- UT of Lakshwadweep v. Seashells Beach Resort, (2012) 6 S.C.C. 136.
- Vaamika Island (Green Lagoon Resort) v. Union of India (2013) 8 S.C.C. 760.
- Kerala State Coastal Management Authority v. DLF Universal Ltd (2018) 2 S.C.C 203.
- Piedade Filomena Gonsalves v. State Of Goa and Ors (2004)3 SCC 445.
- Anil Hoble v. Kashinath Jairam Shetye (2016) 10 SCC 701.
- M. Nizamudheen v. Chemplast Sanmar Limited and Others (2010) 4 S.C.C 240.

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CHAPTER – 1: AN OVERVIEW OF COASTAL ZONE

THE NEED TO PROTECT THE FRAGILE AREA

Coastal zones are areas where land and water join to create an environment with a distinct structure, diversity, and flow of energy. Ketchum defined coastal zone as “the band of dry land and adjacent ocean space (water and submerged land) in which terrestrial processes and land uses directly affect oceanic processes and uses, and vice versa”¹. The coastal zone is a development area between marine and territorial zones. It includes shore ecosystems, wetland ecosystems, mangrove ecosystems, mudflat ecosystems, sea-grass ecosystems, salt marsh ecosystems and seaweed ecosystems and are home to many different types of plants and animals. However, coastal ecosystems are also susceptible to changes in the environment, and there is concern that some areas are now struggling to maintain their diversity due to human activity, the introduction of non-native species, and other factors.

However, the most significant issue facing coastal areas is runoff from industrial, agricultural, and the local regions, sometimes stemming far from the coastal zone. The flow can result in higher nutrient or pollutant levels in coastal waters; feed algae blooms that can be fatal to both humans and marine life². In addition to contamination of coastal and ocean waters, destructive fishing practices and overfishing also threaten both coastal marine population and their habitats. The coastal areas adjacent to major rivers and bays has attracted human settlements. It offers access to fisheries and commerce, proximity to fertile agricultural plains, and amusement opportunity. In developing countries, these cities are encircled by unusual population growth and congested situation. In the developed nations, the settlement standards, in addition to coastal areas, are characterised by continuous residential and resort communities throughout the coastal cities.

¹ B.H. Ketchum, *The Water's Edge: Critical Problems of the Coastal Zone* (MIT Press, Cambridge 1972).

² The Environmental Literacy Council, *Coastal Areas*, <https://enviroliteracy.org/water/coastal-areas/>, (Last accessed on 02-11-2019).

In order to protect the fragile ecosystems near the sea, CRZ rules govern human and industrial activity near the coastline. They sought to restrict certain types of activities, such as large buildings, the establishment of new industries, the storage or disposal of hazardous materials, mining, or reclaiming and bundling, within a certain distance from the coast. Since areas next to the sea are extremely delicate, home to many forms of marine and aquatic life, both animals and plants, and also threatened by climate change, they need to be protected from unregulated development. The rise in unauthorised construction results in ecological imbalance in the coastal area which is a major threat to the marine and aquatic life. This activity also disrupts the livelihood of the people settled near the coastal zones and endanger the coastal ecosystem.

While farm-raised fish can reduce pressure on some native stocks, effluent from fish farms can contaminate the surrounding water and, if any farm fish escape, it can compete with native fish and become an invasive species. Invasive species can also be introduced by many of the marine vessels that release their bilge water within coastal waters, including cruise ships³. While many countries have regulations governing their territorial waters, it is often difficult to enforce international treaties that aim to control practices, including waste disposal, over-exploitation of fisheries, and the killing of sea creatures such as whales.

THE IMPORTANCE OF COASTAL ZONE AND THE NEED TO REGULATE THE ACTIVITIES IN THIS ZONE

India has a coastline of around 7500 km. The coast is endowed with an extensive range of coastal ecosystems like mangroves, coral reefs, sea-grasses, salt marshes, sand dunes, estuaries, lagoons, etc. which are characterised by distinct biotic and abiotic processes. India with its two ocean frontages, together with a great variety of morphological features and resources of high social importance and value produce a broad spectrum of coastal environment. During the pre-colonial period Indian coastlines were absolutely free of any difficulties arising out of human activities. The population of the country survived on income from the agriculture sector. Though

³ Id.

strategically located it did not have very significant and decisive travel and maritime trade relations with the rest of the world. Hence the interest in the maritime areas and activities was minimal. Through ancient times the topography and geology of the land have governed the pattern and intensity of human activity. The physical regime of the Indian Coastline is characterised by different types of coastal and shore features like promontories, sandy spits, barrier beaches, embayment's, estuaries and offshore islands. These characteristic features are the results of the geological and geomorphological history of the coastline.

While the global coast is trying to accommodate high concentration of populations, the government machinery is struggling to control, regulate and monitor the activities, including those in several developed countries. Due to the dynamic nature of the coast, there is no established method to be recommended for the global coast to demarcate the coastal zone and its appropriate management uniformly.

The arrival of the western colonizers, the Portuguese in 1498 A.D, the Dutch in 1602, and the British in 1600 A.D. brought a major change in man's attitude towards the coastal zone. Coastal bastions were established to affirm their footholds on the country. In addition to this, canals, roads and railway were setup so as to ensure communication between such bastions and therefore trade assumed its significance. The rich natural resources of the country attracted the colonialists, and they felt the need to establish anchorages and harbours as well as routes for facilitating the export of these goods from our country. The coastal zones were exploited for achieving this purpose and thus it underwent a radical change. As a result of colonization, people who previously occupied the centre started moving to the coastline in order to provide services to their new masters. Moreover coastal lands were found appropriate for the cultivation of crops which were exported from India. Eventually radical changes were found in the culture of Indian people. Trade assumed importance and consequently the coastal zones attracted people in search of opportunities. The people of the country turned more ambitious after the attainment of independence in 1947, and more number of people were attracted towards coastal cities. Scope in public administration, commerce and

industry along with quality education facilities were the factors which motivated such migration towards the coastal cities.⁴

Today, these coasts play an important role as they are fundamental to all fishing communities as the basic processing of fish catching and the maintenance of craft and gear is carried out here. All the activities in connection with fishing like repairing of nets, drying of fish and even the selling of fish take place on the coast⁵.

In addition, the lands near the sea front are significant because they provide housing for fishing communities. Even though the fishermen from coastal areas like Kutch have their villages far away from the coast, they migrate with their families to the seafront and reside in temporary shelters for months for the purpose of fishing. Most of the families engaged in fishing do not hold land of their own, so naturally the chances of getting displaced with the rise in development in coastal areas are high⁶. Coastal zones are a highly contested space. Tourist facilities and private beach villas in these areas are exposed to high demands due to their natural beauty. To facilitate trade, a large part of these areas is leased to port trusts and harbours. Since the 1960's large industries and power plants are also set up on the coasts.⁷

FACTORS AFFECTING THE COASTAL ZONE

The coastal area is gradually being used for a wide range of activities. Such practices may not always be in line with environmental conservation needs and this may result in creating a large number of problems for those communities that depend on these coastal resources, as well as for the entire country. Coastal land is increasingly being used for human settlement, commerce, tourism, agriculture, etc. Such regions are being overexploited as a result of increased human activities.⁸

⁴ Jha and Anil Kumar, "Coastal resource development, environmental problems and management in India", Shodhganga.

⁵ Id.

⁶ Id.

⁷ Id.

⁸ Supra N.4.

Population Growth

The use of population as a variable is not every day in published coastal vulnerability indices, but the community can be viewed as an "economic" variable because people in densely populated areas act to protect their properties from erosion. Population concerning coastal vulnerability is complementary as each reinforces the effect of the other in increasing or decreasing vulnerability. Changes in the size, composition, and distribution of human populations affect coastal regions by changing land use and land cover. Fishing or harvesting, the destruction of mangroves, and pollution and sedimentation from social activities all can affect the coastal environment.⁹

Changing Coastline

The coastline of the planet is witnessing changes from time to time. Subsidence, rising sea level, hurricanes and storm surges, river sediment supply, sediment drainage, and artificial structures along the coast are some of the factors responsible for coastal variations. Approximately 55 per cent of the Indian coastline is fringed with beaches. While about 25 per cent is prograding, mostly near river mouths and in deltaic areas; the beaches, in general, are either stable or have been receding in the past few decades.

Global Warming and Sea Level Rise

Sea level rise is one of the impacts of climate change due to thermal expansion of surface water. After thermal expansion, to the melting of mountain glaciers and ice caps is expected to make the most substantial contribution to the rise of the sea level over the next hundred years. A major topic of concern is global change caused by increased atmospheric trace gas charging. This global change will include various related responses, such as rising sea levels, changes in storm conditions, changes in patterns of precipitation, and changes in patterns of ocean circulation on at least some spatial scales. Whereas the exact magnitude, timing and geographic distribution of these climate responses cannot be predicted accurately with the level of present

⁹ Liz Creel, *Ripple Effects: Population and Coastal Regions*, Population Reference Bureau, <https://www.prb.org/rippleeffectspopulationandcoastalregions/>, (Last accessed on 02-11-2019).

understanding, computer models allow for generalised predictions of the impacts of these changes.

The global warming will have an impact on sea levels through direct ocean warming and melting of continental and alpine ice sheets. Together these factors will lead to an increase in ocean volume, and the relative sea level will increase in the absence of other causes. Regional causes of relative sea-level change include long-term changes in atmospheric pressure, temperature, currents, wind patterns as well as land subsidence and emergence. The main area of investigation lay in comprehending the nature of physical and human resources along the coast and analysing the implications of sea-level rise. The focus of analysis were i) the estimates of population along the coastal areas, likely to be subjected to the sea level rise; ii) concentration of settlements, economic activities of the people, infrastructure network, and land use and land productivity.

Coral Mining

Coral mining is one of the most severe environmental problems within our coastal zone. This has been a traditional activity in which a significant percentage of the population is engaged. Uncontrolled exploitation has already severely damaged some of our best reefs, particularly in the Gulf of Kutch. In Indian waters, reef-building corals occur at Palk Bay, Gulf of Mannar, Gulf of Kutch, Goa and parts of Maharashtra coast, Andaman-Nicobar islands in the Bay of Bengal and Lakshadweep islands in the Arabian Sea. Approximately one million tons of coral sands are dredged annually in the Kutch Bay, resulting in the loss of around 50% of coral life. Selective overuse of massive corals has already damaged many reefs in the Gulf of Mannar. Coral mining has also led to shore erosion in Lakshadweep islands. Because of this, the ecosystem is fast degrading, and immediate measures to stop indiscriminate and over-exploitation of these resources need to be undertaken to save this vibrant ecosystem from a human-made disaster.

Sand Mining

While coral mining has received much public comment and debate, the effect of sand mining has not received the attention it deserves. Traditionally sand has been regarded as a free resource and the only value assigned to it has been the cost of mining. Mining at beach and rivers primarily in the lower reaches of rivers has now assumed critical proportions. The activity is spread right along our coastline and is most intensive in the areas close to big towns. Besides construction, the major plunder of sand has been for industrial purposes. Tonnes of sand from Goa have been extracted for foundries in Chinchurad belt.

More than 320 km of the 580 km long Kerala coastline faces the massive attack of waves and tidal overflow, thanks to decades of sand extraction since the Travancore period. This has resulted in a constant loss of land, at the rate of four meters per year. The removal of large volumes of sand from beaches disturbs their equilibrium.

Mangrove Degradation

Coastal wetlands are considered to be highly productive areas because of their high detritus content and rich biota. Mangrove swamps, along with their flora and fauna, are ecologically and economically valuable ecosystems. However, made changes such as a result of many natural and man-geological processes, climatological disturbances, deforestation, reclamation and pollution in the past few centuries, vast mangrove areas in India have been degraded.

Thousands of hectares of mangroves forests at Gangetic Sunderbans, Cochin backwaters, Bombay, Gulf of Kutch, Sindhudurg coast, Chorao island of Goa and other regions have been reclaimed for either agriculture or urban development. Mangrove areas have been used for discharge of industrial effluents, sewage and garbage etc. As a result, the general productivity of the mangrove waters decreases. The industrial effluents have destroyed the mangrove forests along Bombay coast at Mahim creek.

Construction of Coastal Structures

The need for the building of coastal defence systems has been created due to flooding hazard in areas inhabited by humans. Coastal infrastructure became important due to increased coastal zone erosion. The whole idea behind the coastal area development was to shield part of the shore from beach erosion and seawater flooding. Nevertheless, the effect of this development on the ecosystem has been mostly negative, and such impacts include habitat destruction and beach landscape physical change. It is an accepted fact that they bring socioeconomic advantages, but environmental issues should be given preference as they would adversely affect the ecosystem on earth. The coastal system has considerable potential to affect the design of the shoreline. Such man-made structures can affect the transport of sediments; divide the coastal area, etc. Based on the environmental condition, two types of coastal defence systems were implemented, which could be either hard coastal protection or soft coastal structure.

The environmental impact of these systems depends on how it is used. Hard structures such as dikes, groin fields and seawalls were most commonly used. Soft protections such as the formation of artificial reef, beach drainage, beach feeding are also used. Strong coastal defence building results in the destruction of existing sedimentary ecosystems. Once the problem it causes are installed, there can be a temporary disruption of sessile fauna, algae and mobile fauna that has colonized the artificial hard structures even during the maintenance phase. The ecological problems created during the maintenance phase are, in reality, nearly identical to those in the construction phase. Hard protection systems are capable of affecting the coastal landscape and coastal ecosystem composition and quality.¹⁰

LEGAL FRAMEORK AND THE POPULAR DEMANDS TO REGULATE THE COASTAL ZONE: THE EARLIEST ATTEMPTS

In the fisheries sector, a lot of technological advances have been made. However, these technological advancements did not receive a positive response from the people engaged in fishing. The impacts of technological advancements were resisted by a group of people. In addition to this challenge, there was also opposition to the coast's

¹⁰ Supra N.4.

privatization and pollution. The improvements made in fishing by mechanization resulted in conflict between traditional fishermen and operators of mechanized and trawl boats. Separate fishing zones were created to avoid conflicts, however in practice such demarcations were of no use and transgression was common.¹¹

In the 1970's these conflicts turned violent in different parts of South India, motivating the formation of groups and seek remedy through regulation. Some of these groups went to Chennai to realize their need for a regulation in fisheries for environmental and livelihood reasons. They named themselves as the National Forum of Catamaran and County Boat Fishermen's Rights and Marine Wealth. Mr Mathany Saldhana, a Goan school teacher was appointed as the first chairman. He has played an active role in organizing the fish workers of the state against certain factories and hotels polluting the beaches in Goa.¹²

For almost a decade, this organization built itself up part by part in each of the maritime states, bringing small groups of artisanal workers under a national federation of independent trade unions, called the National Fish workers Forum (NFF). State units of the forum formally established in 1978, carried out investigations that pointed to destructive fishing practices and also pollution impacts in the Damodar valley command area, in Balasore and Ganjam, in Chennai and Navi Mumbai¹³. Towards the end of the decade of the 1980s, after a sufficiently long period of action in southern states, the National Fishermen's Forum decided to push for nation-wide mobilization campaign, as fisheries is a national issue and to build up its profile, as a national trade union.

In the year 1989, NFF conducted a Coastal Yatra, wherein one group marched from West Bengal to Kanyakumari and another group from Kutch, Gujarat to Kanyakumari. Their slogan was 'Protect Water, Protect Life'. This movement which was later known as the Kanyakumari March, conveyed the message that it is a workers movement with great ecological demands. The demand for marine regulation was for sure an ecological demand, the Kanyakumari March widened the ecological concern because the coastal communities and water resources were being threatened in different ways. During the march they mapped out 500 major polluting units, illegal encroachment by industrial

¹¹ Id.

¹² Id.

¹³ Id.

units, commercial aquaculture and displacement of coastal villages. Another matter which attracted lot of public attention was the joining of rally by thousands of women against the proposal to construct a nuclear power plant and insisting on the NFF to take up anti-nuclear issue as well. On arrival at Kanyakumari, the first words learned by non-Tamilians was 'We don't want the Kundankulam Nuclear Power Plant'. As this was politically sensitive issue, it induced the state to sit up and direct guns on the movement.¹⁴

The state police fired the gathering for no reason and disrupted its activities. In the clash between state police and the protestors around twenty-one protestors received bullet injuries. This led to the realization that a mechanism to protect the coast from unregulated development was indispensable. This was not just an eye-opener to the public about problems faced by fishermen, but was a major milestone in the history of National Fisher workers Forum, because the slogan created a great impact and rallied thousands of men, women, and children whose life depended on water resources.¹⁵

This mass movement took the fisheries issues which was previously known only to the coastal areas to inland areas as well and with that it gained more support and voluntary actions. Thereafter NFF with wide contacts along the North Indian east and west coast, entered into long years of national struggle. During the same period, the fishermen were also worried about the opening up of Indian waters to foreign fishing vessels. In 1989, Narasimha Rao Government issued 2600 licenses to foreign fleets in spite of strong debates in parliament and walkout by L.K Advani and Atal Bihari Vajpayee.¹⁶

This was followed by notable developments and therefore a framework for regulating the development of coastal lands was found necessary. In 1981, Mrs Indira Gandhi wrote to all the state government regarding the significance of protecting beaches for environmental, social and aesthetic purposes. The newly formed ministry of environment issued beach guidelines in 1987. This was followed by the drafting of a notification under the environmental protection act by an animal lover minister and nature enthusiast. The draft for coastal regulation zone notification 1991 was made with primary objective to restrict the use of coast by activities which do not require foreshore

¹⁴ Nalini Nayak and A. J Vijayan, *The Coasts, the Fish Resources and the Fishworkers Movement*, National Human Rights Commission, New Delhi (1st edn., 2006), p.49.

¹⁵ *Id.*

¹⁶ *Supra* N.7.

facilities. The CRZ notification received wide acceptance and support from artisanal fish worker groups because it provided them with a legal basis for resisting the privatization and commercialization of the coast.¹⁷

At the initiative of the then Prime Minister, Mrs Indira Gandhi, the effort to protect the Indian coast began in the early 1980s. It is said that she wrote to all the Chief Ministers of the State on 27 November 1981 after her visit to Puri sea stating:

“I have received several reports about the degradation and misutilization of beaches in our coastal states by building and other activity. This is worrying as the beaches have aesthetic and environmental value as well as other uses. They have to be kept clear of all events at least up to 500 meters from the water at the highest high tide. If the area is vulnerable to erosion, suitable trees and plants have to be planted on the beach sands without marring their beauty.

Beaches must be kept free from all kinds of artificial development. Pollution from industrial and town wastes must also be avoided totally.¹⁸ Please give thought to this matter and ensure that our lovely coastline and its beaches remain unsullied.”

The letter was popularly referred to as the Directive of the Prime Minister, although it did not have any legal support, it still had a significant influence. In July 1983, the Government of India, the Department of Environment (which later became the Ministry of Environment & Forests) drew up the "Environmental Guidelines for Beach Development" based on the Working Group's report for such purposes, which was formed in September 1982. A set of course of action for the development of beaches were also circulated to all States and Union Territories in March 1984. The environmental guidelines for sitting of industry brought out by Environment Ministry in 1985 stipulates that a distance of ‘at least 1/2 km from high tide line‘ be avoided for the location of industries. The Thermal Power Plants environmental recommendations released in 1987 went much further. They stipulated that a buffer zone of 5kms should be kept free of any thermal power stations to protect the coastal areas above 500 mtr of HTL. All of this led to pressure being placed on departments and agencies of central and state government not to locate their operations – or to permit these activities to be

¹⁷ Id.

¹⁸ Dr Basanta Kumar Sahu, Genesis of Coastal Regulations in India, ENVIS Centre of Odisha's State of Environment, <http://orienvvis.nic.in/indexx.aspx?langid=1&slid=651&mid=2&sublinkid=189>, (Last accessed on 04-11-2019).

identified, for example: hotels that came to them under the 500 mtr mark. The Directive had great force at the Centre; projects that came to the Ministry of the Environment for environmental clearance (mainly central public sector projects needing clearance from the Public Investment Board, private sector projects belonging to a registry of 'polluting industries and power projects) had to adhere to the 500 mtr cap.

Nevertheless, taking note of the failure of such guidelines, on July 1990 and December 1990, the Ministry of Environment & Forest conducted an in-house consultation and released a draft Coastal Regulation Zone Notification twice inviting public suggestions and objections.

For the first time in a legal framework on February 19, 1991, the Ministry of Environment and Forests released a notification under the Environment (Protection) Act, 1986, popularly known as 'CRZ Notification,' seeking to control construction activities along the coastline. The said notification stipulated uniform regulations for the entire coast. This failed to take into account the Indian coastal area's high biodiversity, hydrodynamic conditions, demographic trends, natural resources, geomorphology and geological characteristics. The notification's restrictive existence created distress for individuals/communities living in unique ecologically sensitive stretches of the coast.

Under this circumstance, India is making various attempts to manage its coastal zone by introducing regulatory measures during the last two decades and more specifically from 1991 by introducing the Coastal Regulation Zones (CRZ) by the Ministry of Environment and Forests (MoEF). This top-down regulatory approach has faced several constraints towards its implementation, which has led to dilution of its vigour to satisfy the stakeholders. It is estimated that approximately 4,800 billion tons of household waste and 65 million tons of solid waste are deposited in the sea annually¹⁹. Due to ongoing attacks on the coastal areas, the level of mangroves, coral reefs and fish breeding is declining affecting the livelihood of 200 million people living along our country's 7,517 km long coastline.

¹⁹ V Sundararaju, Why we need a coastal zone protection act, DownToEarth, <https://www.downtoearth.org.in/blog/environment/why-we-need-a-coastal-zone-protection-act-62876>, (Last accessed on 04-11-2019).

It was also decided to introduce an action plan with a view to the continued use of the coastal area. On that basis, in 1991 under the Environmental Protection Act, 1986, the Coastal Regulation Zone (CRZ) notification was issued by the Ministry of Environment and Forest to control activities in coastal areas of India.

With one of the most biodiverse and unique ecosystems the Indian coastline has a major impact on human beings, especially those occupying coastal areas. As per the last Marine Fisheries Census (2015) in India, there were 4,057 marine fishing villages and 882,263 households²⁰. A total of 560 million people live along the mainland India's coastline of 7516 km²¹, half of the population nearly is engaged in active fishing and fishery related activities. The rural economy in coastal states are operated mostly by the fishing sector. The sudden stoppage of fishing activities in the tsunami-affected states had a major impact on the entire economy as a chain reaction²².

CONCLUSION

The CRZ notification is critical to the lives and livelihoods of the communities – around 171 million people or 14% of India's population – living across 70 coastal districts, 66 in mainland India and four in island territories. Their future especially that of marginalised communities, is directly linked to the health and disaster preparedness of the coasts²³. The coastal regulation zone notification is formulated with an intent to protect the coastal area and the CRZ Notification 2019 opens up ecological sensitive areas for developments and tourism. Thus the need to analyse the implications of the recent notification on the environment and other stakeholders and making suggestions to address the shortcomings. This research seeks to answer whether CRZ 2019 provides for effective protection of coastal zones? Which are the development activities that

²⁰ Indian Council of Agriculture Research, CMFRI Annual Report 2015-2016, <http://eprints.cmfri.org.in/10897/1/CMFRI%20ANNUAL%20REPORT%202015-16.pdf>, (Last accessed on 05-05-2020).

²¹ Centre for Coastal Zone Management and Coastal Shelter Belt, Database on Coastal States of India, <http://iomennis.nic.in/index2.aspx?slid=758&sublinkid=119&langid=1&mid=1>, (Last accessed on 05-05-2020).

²² Manju Menon, A Sea of Fury: a brief history of four decades of struggle of the National Fish workers Forum (NFF), Dphinfo, August 2011, available at <http://base.d-p-h.info/en/fiches/dph/fiche-dph-8946.html>, (Last accessed on 05-11-2019).

²³ Mahima A Jain, Why Disaster Rehab Must Focus On Landless Dalit Farmers, India spend, <https://www.indiaspend.com/why-disaster-rehab-must-focus-on-landless-dalit-farmers/>, (Last accessed on 05-11-2019).

disturb the ecological balance in coastal area? Whether there is irregularity of provisions in the CRZ Notification?

CHAPTER - 2: THE LEGAL FRAMEWORK IN INDIA

INTRODUCTION

The annual disposal into the sea is expected to amount to around 4,800 billion tons of household waste and 65 million tonnes of solid waste. The current assault at the coastline limits the level of mangroves, coral reefs and fish farming to an adverse negative impact on our country's livelihoods of 200 million people.²⁴

A course of action was then agreed in order to allow the long-term utilization of the coastal region. In 1991, the notification was issued by the Ministry of the Environment and Forest to control operations in the coastal regions of India, in compliance with the Environmental Protection Act of 1986. The CRZ is a coastal area up to 500 meters from the High Tide Line (HTL) and 100 m long stadium between banks of rivers where variations are occurring. The CRZ consists of rivers and ponds. In the 1991 order, which aims to prohibit the development of factories in those regions, the coastal areas is divided into four groups — CRZ-I, CRZ-II, CRZ-II and CRZ-IV.

This chapter deals with coastal regulation zone notifications, its impact on coastal ecosystem and the classification of the zones. The coastal regulation notification came into being because of the need for protecting coastal areas which are part of the ecosystem. However the failure of CRZ notification 1991 was evident and was subject to twenty five amendment leading to the need for a better set of rules and regulations resulting in the CRZ 2011 Notification. In the CRZ notification 2011 the concept of Critically Vulnerable Coastal Areas (CVCA) and a separate Island Protection Zone Notification of 2011 was introduced for the protection of Islands. The chapter also discuss the various institutional mechanisms and coastal conflicts.

CRZ NOTIFICATIONS IN INDIA (1991- 2011)

As a response to emergencies, developed and developing countries around the world have adopted coastal zone management program and regulations on CRZs. Unregulated and exploitative use of coastal resources and conflicting demands has contributed to

²⁴ Supra N. 19

coastal environmental degradation and deterioration. Developmental activities like setting up of industries have adversely affected people occupying coastal areas and relying on coastal resources for their livelihood. The Government of India with the primary motive to prevent further deterioration and exploitation of resources and to ensure harmony among the beneficiaries of coastal resources promulgated a notification on 19th February 1991. This notification was known as the CRZ notification 1991 and is issued by the Ministry of Environment and Forest it advises the government on environmental policy and covers matters including CRZ and connected matters.²⁵

The CRZ Notification 1991 is made up of three parts; (1) Definition and Classification of Coastal Regulation Zone, (2) Prohibited and Permissible Activities under CRZ and (3) CRZ Monitoring and Enforcement. The Central Government in exercise of its powers conferred under clause (d) of sub-rule (3) of Environment Protection Rules, 1986, declared the coastal stretches of seas, bays, estuaries, creeks, rivers, and backwater which are influenced by tidal action (in the landward side) up to 500 m from the High Tide Line (HTL) and the land between the Low Tide Line and High Tide Line as CRZ.²⁶

The High Tide Line was defined as the line on the land up to which the highest water line reaches during spring tide. It also provided for a provision for demarcating the HTL in all parts of the country by appropriate authority. In the case of rivers, creek, and backwater though the distance from the High Tide Line to which the regulation would apply could be determined on case to case basis, but such distance shall not be less than 100 m or the width of the creek, river or backwater whichever less is.²⁷

CRZ-I includes ecologically active areas along high and low tide lines that are very important to the conservation of habitats. Exploration of natural gas and salt production in this field are allowed. The areas up to the coastline are CRZ-II. There is no authorization for illegal structures here. CRZ-III includes rural and industrial areas beyond CRZ-I and CRZ-II. Only practices and public facilities related to agriculture are permitted in this area. CRZ-IV shall alert marine areas within municipal limits.

²⁵ Jitendra k. Panigrahi and Pratap K Mohanty, "Effectiveness of the Indian coastal regulation zone provisions for coastal zone management and its evaluation using SWOT analysis", *Ocean and Coastal Management*, May 2012, 34-50, at 35.

²⁶ Id.

²⁷ Id.

CLASSIFICATION OF COASTAL ZONE

The coastal areas falling within the 500 m of HTL on the landward side are classified into four categories in the CRZ notification 1991 for the purpose of regulating developmental activities in coastal areas which often lead to the degradation of coastal environment. CRZ I comprises of areas that are ecologically sensitive like national parks, sanctuaries, reserve forest, wildlife habitats, mangroves, coral/coral reef, areas close to breeding and spawning grounds of fish and other marine life, areas rich in bio diversity, areas of outstanding natural beauty/historical/heritage areas, areas rich in genetic diversity, intertidal areas, and other areas which are under threats of sea-level rise due to global warming. This category of coastal area is subjected to the most stringent prohibitions. No new constructions are within 500 m of the HTL and no constructions are permitted within LTL and HTL other than those allowed under permissible activities.²⁸

The CRZ II constitutes already developed areas within the municipal limits or in other legally designated urban areas which have already substantially built up to or close to shoreline with drainage and approach roads, water supply and sewerage main facilities.²⁹ CRZ II includes sectors which have already been developed up to or near the shoreline, which are 'developed areas' that are called 'water treatment'. Water treatment and other structural infrastructures such as water supply and sanitation' within municipal limits or in designated urban areas that are already 'substantially constructed'.

Usually coastal areas in cities and towns are considered as CRZ II and therefore prohibitions are less stringent compared to CRZ I. In this zone construction of buildings are permitted on the landward side of the existing/ proposed road and authorized structures however this is subject to the existing local town and country planning regulations including the existing norms of Floor Space Index (FSI) or Floor Area Ratio (FAR).³⁰

Areas that are relatively undisturbed in the coastal zone in rural areas within municipal limits or in other designated urban areas which are not substantially built and those

²⁸ Id.

²⁹ Id.

³⁰ Id.

which do not belong to either CRZ I or CRZ II are categories are classified under CRZ III.³¹

In this zone strict prohibitions are imposed within 500 m from HTL. An area of 200 m from HTL on the landward side is demarcated as No Developmental Zone (NDZ) and next 300 m is known as Restricted Development Zone (RDZ). Construction of beach resorts/hotels in the designated areas of CRZ III is a permissible activity on following the guidelines and obtaining the prior approval of MOEF.³² CRZ III also applies to regions that are largely undisturbed that comprise agricultural (developed that undeveloped) coastal zones and not heavily built metropolitan zones.

CRZ IV includes area that are not designated under the above three categories which belong to the coastal stretches of small island territories like Andaman and Nicobar, Lakshadweep and other small islands. In some groups of islands the area of the islands are too small, that the whole land is covered under CRZ. The prohibited activities within this zone are similar to those of CRZ III.³³

The goal of sustainable coastal management can be achieved only if there is a proper monitoring and enforcement mechanism. The procedure for monitoring and enforcement is regarded to be of high significance because the effectiveness of the CRZ provisions depends on that. The very nature of the CRZ provisions dealing with monitoring and enforcement in the 1991 notification coupled with legal inadequacies have contributed to the ineffectiveness of CRZ 1991 and its repeated amendments.³⁴

Administrative and legal inadequacies in the coastal regulations of 1986 in South Africa led to rescind even long after their promulgation. Without proper and long term policy, even clear and implementable coastal regulations are often not effective.³⁵

In a large country like India, where the socio-economic and political issues along the coastal areas are too closely connected with coastal resource conservation and development, the CRZ provisions should adequately include these matters and should ensure public participation in coastal zone planning and decision making and thereby achieve sustainable economic development. The CRZ notification 1991 had to undergo

³¹ Id.

³² Id.

³³ Id at 36.

³⁴ Id.

³⁵ Id.

several amendments due to varied reasons like societal pressure, difficulty in implementation strategy and because of the direction from the Supreme Court of India.³⁶

AMENDMENTS TO CRZ NOTIFICATION, 1991³⁷

The 1991 notification was amended for about twenty-five times in response to the request made by State Governments, Central Ministers and NGO's. It was subsequently amended several times in order to incorporate changes into CRZ law.³⁸ The major amendments to CRZ notification has been discussed in the following paragraph.

The first amendment to the CRZ Notification 1991 was made on 18th August, 1994 based on the report submitted by Mr. B.B. Vohra Committee. It relaxed the CRZ Area to with six rest areas: HTL width was decreased to 100 m and 50 m for the dams, creeks and backwaters; barbed wire fitting was granted; no dunes required flattening; no permanent sport facility structures were permitted, basement buildings approved, density of structures could increase, however this was subsequently quashed by the Supreme Court in *Indian Council for Enviro-Legal Action v. Union of India & Ors.*³⁹ In January 1997, based on Fr.Saldhana Committee report, amendment was made granting permission to sand mining in non-degraded areas and drawing of groundwater in the CRZ area in Andaman and Nicobar.

The MoEF asked the National Institute of Oceanography, Goa, to assess areas which are ecologically vulnerable in the coastal regions of Goa in June 1996 when the needs emerged for a revaluation of the Goa CZM plans (Mascarenhas, 1996).⁴⁰ In September 1996 the final notification was given on the basis of much of this evidence (MoEF, 1996). It is the new statute regulating micro-development on the coasts, waterways and backwater of Goa.

³⁶ Id.

³⁷ S-O.114 (E) dated 19th February, 1991.

³⁸ S-O. 595(E) dated 18th August, 1994; S-O. 73(E) dated 31st January, 1997; S-O.494(E) dated 9th July, 1997; S-O.1122(E) dated 30th September, 1998; S-O.730(E) dated 4th August, 2000; S-O. 900(E) dated 29th September 2000 and S-O 329 (E) dated 12th April, 2001.

³⁹ *Indian Council for Enviro-Legal Action v. Union of India and others* (1996) 5 S.C.C 281.

⁴⁰ DSTE Goa, Coastal Zone Management Plan 1996, <http://www.dstegoa.gov.in/CZM-Plan-1996.pdf>, (Last accessed on 03-01-2020).

In July, 1997 another amendment was brought based on Prof. N. Balakrishnan Nair Committee report granting permission to reclamation within port limits, constructions for operation expansion and modernization of ports. Development of public utilities within Sunderban areas and storage of 13 POL products within port limits was also declared as permissible activities.⁴¹ In December, 1998, an amendment was brought explicitly defining HTL.⁴² In September, 1999 amendment was made allowing extension of ground floor houses with plinth area not exceeding 100 square meters on the landward side of CRZ.⁴³

In August, 2000 an amendment was made granting permission to store LNG in intertidal area and for exploration and extraction of oil and gas in CRZ areas.⁴⁴ In April, 2001 there was an amendment permitting the setting up of port and harbour projects, oil and gas exploration and exploitation, pipelines, conveying systems and Department of Atomic Energy projects in CRZ areas.⁴⁵

Two landmark amendments were notified in 2002 first one was made on May, based on Mr. D.M. Sukthankar Committee-I report permission was given to non-polluting industries in the field of IT and other service industries in the CRZ area of Special Economic Zones (SEZs). The second, In October, 2002 based on Fr. Saldanha Committee-II report, non-conventional energy facilities, desalination plants, airstrips in CRZ zone of Andaman & Nicobar and Lakshadweep, storage of non-hazardous cargos such as edible oil, fertilizer and food grain was permitted.⁴⁶ Housing schemes of state urban development authorities initiated prior to 19th February 1991 was also permitted.

In 2003 four amendments were published. April, 2003 amendment declared projects costing more than Rs.50 billion require clearance from MoEF⁴⁷ while May, 2003 Amendment permitted construction of embarkation facilities for Lakshadweep in CRZ-I areas.⁴⁸

⁴¹ MoEF, 1997b, S.O 494 (E) dated 9th July, 1997.

⁴² MoEF, 1998, S.O 1122 (E) dated 29th December 1998.

⁴³ (MoEF, 1999).

⁴⁴ (MoEF, 2000), S.O 730 (E), dated 4th August, 2000.

⁴⁵ (MoEF, 2001).

⁴⁶ (MoEF, 2001).

⁴⁷ (MoEF, 2003a).

⁴⁸ (MoEF, 2003b).

The June, 2003 amendment permitted construction of trans-harbour sea links passing through CRZ-I areas.⁴⁹; July, 2003 amendment relaxed No Development Zone to 50m (from 200m) from HTL in Andaman & Nicobar and Lakshadweep for promoting tourism based on integrated coastal zone management study.⁵⁰ In January, 2005, mining of sand was relaxed for Andaman and Nicobar islands in the CRZ area .However, restrictions were imposed on the quantity, which was further extended in March, 2007 (MoEF, 2007) and March, 2008 (MoEF, 2008) amendments. A special amendment was made in May2009 for the development of a Greenfield Airport at Navi Mumbai in CRZ areas.

Though the CRZ notification 1991 provided a regulatory framework for the conservation of coastal resources by restricting developmental activities along the coasts. Over the years the ministry has received representations from different interest groups indicating the drawbacks of the notification both from the conservation and sustainable livelihood issues.

The central government has constituted a number of committees to scrutinize these representations and on basis of the reports submitted, several amendments were made to the 1991 notification. After a detailed and comprehensive review of the CRZ 1991 notification, CRZ 2011 was finally promulgated.

CRZ NOTIFICATION 2011

A draft notification was issued by the Ministry of Environment and Forest (MoEF) on 15th September, 2010 inviting objections and suggestions from the general public for the purpose of declaring coastal stretches as the coastal regulation zone and imposing restrictions on industries, operations and processes in the CRZ. After careful considerations of objections and the suggestions made by public, the CRZ Notification 2011 was issued on 6th January, 2011 and the new notification superseded the original notification issued on 19th February, 1991. The CRZ 2011 notification replaces the CRZ notification of 1991.

⁴⁹ (MoEF, 2003c).

⁵⁰ (MoEF, 2005a, b).

In addition for the very first time an Island Protection Zone Notification (IPZ), 2011 was notified covering Andaman and Nicobar Islands and Lakshadweep and their water area up to territorial water limits. Restrictions on the islands of Andaman and Nicobar and Lakshadweep and the marine areas surrounding these islands are provided in a separate notification.⁵¹

These two notifications maintain a balance between the objectives of CRZ like ensuring livelihood security to the fisher communities and other local communities living along the coastal areas, conservation and protection of coastal stretches, its unique environment and marine areas, encouraging sustainable management with the aid of scientific principles.⁵²

The CRZ notification 2011 has undergone considerable changes. The definition of CRZ has been broadened to include land area falling between hazard line and 500 m from HTL on the landward side in case of seafront, and between the hazard line and 100 m line (decreased from 200 m) in case of tidal influenced water bodies. The concept of Hazard Line has been introduced in this notification.

The classification of CRZ into four zones has been continued in 2011 notification. In the new notification CRZ-I classification includes geomorphological features of importance which maintain the integrity of the coast like structures of archaeological importance and heritage sites. No big changes have been introduced into CRZ II and CRZ III category.

However CRZ IV in the 2011 notification has undergone changes. CRZ IV under the new notification includes water area of the tidal influenced water body from the mouth of the water body at the sea up to the distance up to which tidal influence is there.⁵³

CRITICALLY VULNERABLE AREAS UNDER THE 2011 NOTIFICATION

Another important feature of 2011 notification is that other than four categories, newer category called areas requiring special consideration has been introduced. These areas include CRZ areas of Greater Mumbai, the CRZ areas of Kerala including backwaters

⁵¹ Notification S.O.20 (E) dated, 6th January, 2011.

⁵² Section 14 (2) (c), The Coast Guard Act, 1978.

⁵³ Id.

and backwater islands and CRZ areas of Goa, and also Critically Vulnerable Coastal Areas (CVCA) such as Sunderban Mangrove area, Chilika and Bhitarkanika (Orissa), Gulf of Khambat and Gulf of Kutch (Gujarat), Malvan and Achra-Ratnagiri (Maharashtra), Karwar and Coondapur (Karnataka), Vembanad (Kerala), Coringa, East Godavari and Krishna Delta (Andhra Pradesh), Gulf of Mannar (Tamil Nadu).⁵⁴

These areas are declared and managed as ecologically important area after consulting with local fishers and other communities, who occupy these areas and whose lives are directly dependent on the coastal resources. The details regarding this will be provided in the guideline, which has to be developed and notified by the Ministry of Environment and Forest (MoEF) after consulting with the stakeholders like the state government, local coastal communities and fisher folk and the like people inhabiting the area. In order to protect these CVCA's, Integrated Management Plans (IMPs) shall be prepared, however such plans should be formulated by taking into consideration the conservation and management of mangroves and the interest of local community.⁵⁵

THE ISLAND PROTECTION ZONE NOTIFICATION, 2011

A new regulation was issued on 6th January, 2011⁵⁶ known as the Island Protection Zone Notification and it imposed restrictions as similar to that of CRZ. This notification covered islands in Andaman and Nicobar and those in Lakshadweep. The total geographical area of these islands are too small and mostly the 500 m regulations overlap. This induced the government to issue a notification that would exclusively deal with providing livelihood security to the local communities whose life depends on the coastal environment and also protecting the islands unique environment through sustainable management plan. The plan shall be made on the basis of scientific principles and after due consideration of vulnerability of the coast to natural hazards.⁵⁷

The introduction of coastal zone management plans which is prepared on the basis of suggestions put forward by the local community is another important feature of the regulation. Clearances for obtaining CRZ approval have been made time-bound; within

⁵⁴ Id.

⁵⁵ P Leelakrishnan, Environmental Law in India, Lexis Nexis, Haryana (5th edn. 2019).

⁵⁶ S.O. 20 (E) dated 6th January, 2011.

⁵⁷ Supra N.44.

a period of sixty days from the date of complete application within concerned CZMA and another sixty days from the date of recommendation of the concerned CZMA. Clearance provided has a validity of five years. As a follow up of the clearance obtained monitoring of projects have been initiated in the form a requirement to submit half-yearly compliance ⁵⁸report. The reports so submitted are to be published in the website of the concerned regulatory authority.

The list of prohibited activities and the exceptions therein have been expanded in the 2011 notification to include facilities required for patrolling and vigilance activities of marine/coastal police stations, for generating power by non-conventional energy sources, setting up of desalination plants in the area not classified as CRZ I, installation of weather radar for monitoring of cyclone movement and prediction by India Meteorological Department and development of Green Field airport at Navi Mumbai. Whereas in the CRZ Notification 1991 the exceptions were limited to those activities which required access to waterfront.⁵⁹

Another important aspect is the introduction of the Coastal Zone Management Plans, which will regulate coastal development activity and which are to be formulated by the State Governments or the administration of Union Territories. In Greater Mumbai, the re-development of approximately 146 existing slums in CRZ areas has been permitted, provided that the stake of the state government or its agencies in these projects is not less than 51%. Redevelopment and reconstruction of old, dilapidated, and unsafe buildings in the CRZ-II area has also been permitted. Also, the Floor Space Index (FSI) or Floor Area Ratio (FAR) prevailing in the Town and Country Planning Regulations as on the date of the project being sanctioned, will apply. In order to ensure that the redevelopment of slums and dilapidated structures in Mumbai are done in the most transparent and accountable manner the Right to Information Act, 2005 (MoLJ, 2005) will be applicable and auditing will be done by the office of the Comptroller and Auditor General (C&AG) of India.⁶⁰

The notification also chart out the methods to be adopted for preventing pollution and protecting coastal environment. The 2011 notification can be said to be one step forward and two back, because even though the notification grants the fishing

⁵⁸ Id.

⁵⁹ Id.

⁶⁰ Id.

communities the right to redevelop the land on which they live, at the same time it exposes the coastal areas for other forms of development which will directly or indirectly create an unfavourable impact on them.⁶¹

Few notable facts regarding the 2011 notification is that the No Development Zone has been reduced from 200 meters to 100 meters and has been made applicable to traditional coastal communities, including fisher folk and therefore it triggers construction activities on coastal areas and leads to degradation of coastal resources ;it does not permit Special Economic Zones (SEZ) projects in the CRZ; it does not impose restrictions for expansion of housing for rural communities in CRZ III; again there is confusion regarding the CRZ demarcation of tidal influenced water bodies with the concept of 5 ppt salinity.⁶²

The Ministry of Environment and Forest has taken every effort to bring up specific provisions to deal with the interest of fisher folk community occupying the coastal areas and to address the shortcomings of 1991 notifications like the time-bound clearances, enforcement mechanisms, and special provisions for coastal stretches which require special attention. Though the MoEF has been successful in incorporating provisions addressing the shortcoming of 1991 notification, it was not without any drawbacks and had to face lot of agitations.⁶³

INSTITUTIONAL MECHANISMS UNDER THE CRZ NOTIFICATION

The CRZ regime has a well-established process and clearances have been given to developmental projects in a time-bound manner. This is being carried out with the help of statutory, administrative and procedural frameworks. The administrative and procedural framework is detailed below:

Administrative Framework: Coastal Zone Management Authority

Thirteen State Coastal Zone Management Authority, one for each coastal states and union territories and National Coastal Zone Management Authority has been appointed by the MoEF on 26th November, 1998 in order to monitor and implement the provisions

⁶¹ Id.

⁶² Id.

⁶³ Id.

of CRZ notification. The duties to be performed by the CZMAs includes ensuring compliance of CRZ, supervising and advising on changes in classification of CRZ, holding inquiries into alleged violations and taking action against violators. The authority has the power to review the cases Suo Moto or on the basis of complaints filed by an individual or an organization active in environmental matters but does not have the powers to grant clearances of any kind to developmental projects.⁶⁴

CZMAs of different states vary from one another however their duties and responsibilities are almost alike. SCZMAs have fairly extensive and important mandate as compared to other authorities constituted by MoEF under Section 3 (3) of the Environment Protection Act (EPA, 1986). The CZMAs are entrusted with a lot of duties, and one of its duty is to identify ecologically sensitive and economically important areas, to formulate integrated management plans and then act as the immediate authority empowered to implement all provisions of the CRZ notification and it has to recommend projects to government in order to obtain clearances.

The CRZ clearance takes place through a three-tier mechanism which involves centre, state and local authorities. At central level, National Coastal Zone Management Authority (NCZMA) and at State level State Coastal Zone Management Authorities (SCZMA) along with the District Collectors at local level are implementing CRZ notification and taking action against violations. The duty to make scientific decision on the potential and actual impacts on the coastal environment rests with the Ministry of Earth Sciences (MoES).

Procedural Framework

The proposers of the project has to apply to the concerned SCZMA according to the format which is specifically provided in the Annexure IV of the notification accompanied by EIA report and management plan, CRZ map in the 1:4000 scale covering 7 km radius around the project site, project layout superimposed on the CRZ map, no objection certificate from the concerned state pollution control board or central pollution control board. The SCZMA examines the documents in accordance with the approved CZMP and in compliance with CRZ notification, interacts with the concerned

⁶⁴ Javier Mateo, Water pollution from agriculture: a global review, The Food and Agriculture Organisation of the United Nations, Rome, (1st edn, 2017).

sectors, takes concurrence of the District Collector by reviewing the local CZMP and makes recommendation within a period of sixty days from the date of receipt of complete application.⁶⁵

THE 1991 & THE 2011 CRZ NOTIFICATIONS AND THEIR SIGNIFICANCE

The Notification from 1991 was updated roughly 25 times – in view of demands from State Governments, Central Ministries and NGOs, MoEF released various orders clarifying those problems. Finally, on the basis of the committee recommendations chaired by Dr M S Swaminathan on Coastal Regulation, a new notification was released in 2011 which consolidates the above amendments.

The CRZ Notification 2011 seeks to ensure the economic welfare of fishing communities as well as of other local populations that live on the coast, to conserve and protect coastal environments and to promote sustainable growth based on science principles. In addition to CRZ-I, the CRZ-II (green areas), CRZ-II (built-up areas) and CRZ-III (rural areas) and the CRZ-IV (water areas) were listed. The only change was to add the CRZ-IV, which covers coastal areas of sovereign waters and water sources affected by tidal fluvial⁶⁶.

The Islands of Andaman & Nicobar and Lakshadweep is protected by a similar draft Island Defence line. The MoEFCC has now released its 2018 Draft Notifications on the Coastal Regulation Zone based on representations obtained at the supersession of the 2011 CRZ Notification from different coastal states, Union Territories and other stakeholders.

In addition to the livelihood protection for populations and the promotion of sustainable growth based on science values, taking into account the threats of natural disaster and increasing sea levels as a result of global warmings, it is specifically stated in the Draft that this Notification shall be made in relation of maintaining and protecting the special ecosystem of coastal areas and maritime areas.

The latest approval includes the clearance required from the Union government of projects situated in CRZ-I (ecologically vulnerable areas) and CRZ-IV (zones from the

⁶⁵ Id.

⁶⁶ Coastal Regulation Zone Notification, 2011, S.O. 19 (E) 6th January, 2011.

LTL to 12 maritime miles). The authorities have been assigned to State governments for clearance of CRZ-II (zones built up to or near to the shoreline) and CRZ-III (zones fairly unruly). The Floor Space Index (FSI) building requirements have now been modified. The latest contact also modified the conditions of the No Development Zone (NDZ).

The Notice Draft authorizes temporary tourism services on beaches within 10 meters of the sea line, such as huts, toilet walls, change rooms, water baths, etc., granting authorisation to state and even the city's urban planners. In the NDZ of the CRZ-III regions temporary tourism facilities are now permitted. The CRZ-I is further categorized into CRZ-I A covering the territory between the LTL and the HTL, consisting of ecologically prone areas and CRZ-I B.

Activities such as mangrove walking, treetops, nature walks etc., were removed from ecotourism in the name of visitor facilities after designation of ecologically vulnerable areas under CRZ-I A. Rural areas of 2 161/square kilometres population density coming under CRZ-III A shall now have NDZ of 50 meters from the HTL, opposed to the 200 meters stated in the 2011 correspondence⁶⁷.

Pipeline building, power lines, stilt road development, etc., needed by public infrastructure are allowed in the mangrove buffer. If such activities are allowed in fragile ecosystems, marine life will most likely be disrupted and the environment will ultimately be degraded or lost. The growth of beach tourism can also lead to conflicts with fishers who rely on the beach to support themselves. This dispute has already started on the well-known Marina Beach in the historic fishing village of Chennai's Nochikuppam⁶⁸.

The new service route there has been turned into a high-speed concrete path where fishermen can sell fish and rebuild their nets sooner. In the CRZ-I B areas it is now necessary to set up treatment plants to cope with emissions. Defence and strategic projects have been exempted.

⁶⁷ Public Information Bureau, <https://pib.gov.in/PressReleasePage.aspx?PRID=1557592>, (Last accessed on 06-01-2020).

⁶⁸ V Sundararaju, Conserving India's coastal zones, Millenniumpost, http://www.millenniumpost.in/opinion/conserving-indias-coastal-zones-337182?infinite_scroll=1, (Last accessed on 06-01-2020).

Ockhi cyclone, which wreaked havoc in Tamil Nadu, Kanyakumari District, the unpredictable monsoon that triggered a tragedy in Kerala, Gaja cyclone which ravaged twelve Tamil Nadu districts, and the state's monsoon failure, have shown how vulnerable India is to rising seas, shorelines, and climate change. The coastal zones are protected from interference if the rules specified in the CRZ Notification are implemented properly. Nonetheless, it should not be strictly applied because it is just a warning without any disciplinary action.

Even the CAG of India has reported that regular notification reforms have opened the way for commercial and industrial development of coastal regions, while natural disasters are becoming increasingly common, causing significant loss of lives and properties to humans.

A Coastal Zone Management Plan (CZMP), planned by the coastal states during the year, was provided for by the CRZ Notification 2011. However, several states had not drawn up plans by 2018, and some proposed proposals omitted any proposal for fishermen's houses.

COASTAL CONFLICTS

Although CRZ has been in force since 1991, the coastal law is rarely implemented, enforced or seriously monitored. This is relevant because various groups have raised concerns about its legitimacy and because of the confusion of the law. While in most respects the notice is straightforward, it contains some inherent limitations which render deliberate misuse unwelcome. When disputes are articulated, coastal law does not seem to be all right.

1. Misapplication of back-end line: The mandatory back-end lines provided for in the law were actively opposed by various lobbies. Under currently in effect regulations, a collection of CRZ I, CRZ II, and CRZ III, 200 m along the open sea are allocated 500 meters from HTL and 100 m for flows and backwaters. One thing to note is that the landslides and coastal hillsides have no backbone restriction. Such compulsory backrests are essential to an appropriate environment working. In fact, however, buffer areas have created a lot of

confusion and in particular hotels and resorts are not always practiced. The Object of CRZ gets defeated.

2. Tidal action in rivers: CRZ law extends in the countryside to marine areas affecting tidal activity. Nevertheless, coastal consumers have sought to negate the purpose of this law by wrongly defining the term "tidal activity". Goan rivers are considered to be driven by tides, with an influence in the interior up to 40 km. MoEF interference forced urban authorities to take drainage action in Goa's wetlands and waterways⁶⁹.
3. The HTL dispute: HTL is the line up to which the peak tide at spring tide passes. The naked eye can differentiate between the directions of this line, as the line represents the beach track – the dune intersection. The HTL is a simple thread. The natural vegetation line along open beaches was not taken into account. Therefore, HTL has been a contentious subject as no specific HTL interpretation has been recognized.
4. In the following ways, the Naval Hydrographic Office recommended that all coastal states obey their concepts and instructions. Therefore, during the spring tide, HTL is the line to the tallest depth. This assertion is included in Goa's included CZM plans.⁷⁰
5. Considering its environmental significance, the MoEF listed CRZ – I sand dunes as the biological interest and use of sand dunes in society. The MoEF then released separate orders in September 1996 (MoEF, 1996) ordering Goa state to include CRZ-I sand dunes. In the coastal areas marked by sand dunes no constructions are therefore allowed.
6. Beach shacks: A rare panoramic view of Goan coasts, beach shacks consist of simple, temporary shacks. Contests have developed steadily, as almost 220 shacks (and many illegal shacks) are situated about 60 km from the beach. As the beach is known as CRZ I, even a temporary shack cannot be permitted on beaches, especially not on sand dunes. Since shacks are seasonal and offer a means of subsistence for unemployed people, though, beach shacks seem to

⁶⁹ Antonio Mascarenhas, Some Implications of Coastal Regulation Zone (CRZ) legislation for the coast of Goa, ResearchGate, https://www.researchgate.net/publication/40901671_Some_implications_of_Coastal_Regulation_Zone_CRZ_legislation_for_the_coast_of_Goa, (Last accessed on 06-01-2020).

⁷⁰ Id.

have remained there. Some of the big issues is a dramatic rise in shacks, which slowly leads to scarce beach land being used.

7. Dangerous events: Few incidents including cyclones or tsunamis can be witnessed on the coast of Goa. The need for CRZ and its relevance have been strengthened by frequent hydro meteorological activities on the east shore of India. The latest earthquake has once again shown that housing behind sand dunes and forests has survived the impact of violence against the loss of exposed shoreline infrastructure. In the wake of extreme ocean events the defence feature of coastal dunes is established.

CONCLUSION

Despite regulations on coastal environmental issues, the geomorphic shifts in coastal vegetation is important in anthropogenic behaviour. The most critical tool intended to secure the country's maritime resources is constantly being resisted. The warning is not enforced fully, although it has been in force since 1991. Several accusations have been made against haphazard and uncontrolled expansion of the tourism, over-development and realization of coastal belts, side-tracking of the coastal environment, sand dunes, Sand Aeolian transport, mangrove swamp reclamation, sunset on beaches, public access to beaches and fees, among other things. The human interference in coastal areas is also unjustifiable. Such results together represent one of the most strong international tourism indictments.

Through the years it was observed strong allegations of unregulated and haphazard expansion in tourism and an unprecedented pace of development and spread of new buildings. The primary risk of these criminal acts rests with the changing coasts that we are actually witnessing. Baga-Sinquerim beach in Goa is the worst hit strip on the coast in this scenarios of unplanned construction activity.

CHAPTER – 3: COASTAL ZONE MANAGEMENT IN USA & UK

INTRODUCTION

Coastal nations all over the world recognise the need to maintain a balance between the development goals and protection of natural resources. To achieve their aim of protecting coasts, the policies adopted by different countries may not be identical; they differ from country to country depending on the unique circumstances existing in each of them. The particular reason for choosing United States of America and United Kingdom is because of their development and major similarities in the functioning of the legal system in comparison with India.

UNITED STATES OF AMERICA

Historical Background

Growth in population and economic development has put the coast under pressure. The interests and demands for using coastal areas increased. The most common reasons for the exploitation of coastal areas include industry, commerce, accommodation, development, recreation, mineral and fossil fuels extraction, transport and navigation, waste disposal and commercial fisheries. These activities affected the marine resources, wildlife, and coastal and estuarine ecosystems. These were the issues faced by coasts in U.S.

During 1970s proposals were put forward for national land use legislation, but they were never accepted. The realisation that coastal zones play a significant role in the future of the nation, made the Congress to enact the Coastal Zone Management Act in 1972. Major portion of the act had its foundation on a 1969 presidential blue ribbon “Stratton Commission” which paid its attention towards marine issues.⁷¹

The CZM Act defines the ‘coastal zones’ as consisting of coastal waters and adjacent shore land, which are strongly influenced by each other and includes islands, transitional and inter-tidal areas, salt marshes, wetlands and beaches. It extends

⁷¹ P Leelakrishnan, Environmental law of India, Lexis Nexis, Haryana (5th edn, 2019).

seawards to other areas, and to the outer limits of territorial sea. Its landward extension starts from the shorelines only to the extent necessary to control shore lands, the uses of which have a direct and significant impact on the coastal waters.⁷²

The act provided two programs like the National Coastal Zone Management Program and the National Estuarine Research Reserve System. States can voluntarily participate in these programs, and the emphasis on the state and federal partnership approach for dealing with coastal zone issues.⁷³

NATIONAL OCEAN SERVICE (NOS)

National Ocean Service (NOS), a US agency within The National Oceanic and Atmospheric Administration (NOAA) Department of Commerce is responsible for protecting and improving the marine resources and habitats of the country along 95,000 miles (153,000 km) of coastal waters covering 3,500,000 square miles (9,100,000 km²). Its goal is to 'provide science-based solutions through strategic collaborations that tackle changing cultural, environmental, and social pressures on our oceans and coasts'.

National Oceanic and Atmospheric Administration (NOAA) works closely to resolve a range of coastal concerns with federal, state, and local stakeholders. Under NOS, the Office for Coastal Management (OCM) plays a key role in implementing and coordinating a number of federal-state projects, and providing technical and financial assistance and training to coastal area management states. OCM also offers training, professional support and guidance for government and local officials looking to protect and use coastal resources wisely. These and other NOS offices also engage in activities such as coastal and marine strategic planning, and the creation and implementation of resources to help coastal cities tackle issues such as rising sea level.⁷⁴

⁷² Id.

⁷³ Id.

⁷⁴ National Ocean Service, Coastal Zone Management, <https://oceanservice.noaa.gov/tools/czm/>, (Last accessed on 15-04-2020).

The Coastal Zone Management Program

The National Coastal Zone Management Program is one mechanism for managing the varied coastal regions of the country. The Coastal Zone Management Act established this joint federal-state agreement to protect, rebuild and responsibly grow coastal communities and resources within country. The Program takes a holistic approach to problem solving — balancing coastal resource use, economic growth, and conservation requirements that are sometimes overlapping and often contradictory. The Coastal Zone Management Program includes all 35 qualifying Coastal and Great Lakes states, territories, and commonwealths (with the exception of Alaska).⁷⁵

Tackling Issues

Coastal management program for States and Territories address a broad range of concerns including⁷⁶:

1. Climate Change: As the atmosphere warms the World, sea levels are increasing, with major impacts on coastal cities, economies and natural resources. Coastal zone management can help coastal communities plan for a changing environment and respond to that. NOS develops flooding models at sea level and facilitates the creation of state and local level climate change adaptation strategies, legislation and policies.
2. Energy Facility Siting: Either for oil and gas or for renewable sources such as wind or wave power, there is a lot of energy exploration, development, and transportation along the coastline. Coastal zone management helps ensure that energy facilities are constructed in locations and ways that preserve the national interest in energy production and coastal resources, while reducing conflicts with other coastal uses such as fishing and navigation.
3. Public Access: More than million Americans visit coastal areas every year to swim, sail, fish or just relax; however, it's not so easy to get to the beach often. Coastal zone management can help make coastal areas open to the public. As well as providing new opportunities for access and improving existing sites, the

⁷⁵ Id.

⁷⁶ Id.

initiative helps provide public awareness and outreach to ensure that the public knows where they can access the coast.

4. Habitat Protection: The coasts have ecologically valuable ecosystems. Unfortunately many coastal ecological areas are faced with increased human activity pressure. Coastal management promotes habitat conservation through land use planning, habitat restoration, and state and local permitting programs that control the impacts of coastal ecosystems on development. OCM also administers programmes such as the Coastal and Estuarine Land Management Programme, which provides grants to states and local organisations for permanent protection of coastal resources.
5. Water Quality: Nonpoint source contamination, such as street or lawn runoff, poses the largest danger to the coastal water quality of the nation today. OCM administers the Coastal Nonpoint Pollution Management Program to help combat the nonpoint source emissions are jointly run by NOAA and the U.S. The job of the Environmental Protection Agency involves the establishment and encouragement of States to use management measures to control contaminated runoff.

NATIONAL COASTAL ZONE MANAGEMENT PROGRAMME

The U.S. Coastal Zone Management Program (CZMP) developed under the 1972 Coastal Zone Management Act (CZM Act) serves as the foundation for U.S. coastal zone coordination planning and management. This unique environmental law urges states to balance economic growth with conservation of the environment. 34 of 35 participating states participate in this volunteer program. States with coastal zone management programs (CZMPs) which have been certified by the Coastal Zone Management Federal Office as meeting the criteria of the Act obtain annual funding to execute their programme. They also profit from the "federal consistency" provision of the CZMA, which mandates that federal agencies be compliant with the State's CZM plan "to the full degree possible."

CZMPs are detailed state-wide management plans with authority to govern coastal development and devise specific management plans for sites and activities as necessary. Although the federal CZMP has been tested many times and has been shown to be

successful in resolving various coastal problems, several parts of the US coastline continue to be threatened by population growth, over-exploitation of natural resources and climate change. States like Florida, Maryland and California take large views of climate change as one of the main stressors. A recent Maryland Climate Change Study demonstrates the impacts of climate change on the sustainability of the coasts, fisheries and water⁷⁷.

Objectives of the CZMP⁷⁸

The objectives of the program are derived from the CZMA mission of "preserving, protecting, developing and, where possible, restoring or enhancing the resources of the coastal zone of the country." A key feature of the CZMP is that it is a voluntary system that enables states to combine both conservation and development needs and coordinate the activities of local, state and federal agencies in the coastal zone.

Roles of Government⁷⁹

The Federal Government's primary role in coastal management involves setting national goals, strategies and standards; authorizing state programs; coordinating regional interagency actions; ensuring the security of national interests; and providing technical assistance and federal support to approved state CZM programmes.

States play a key role in the protection of coastal areas. Its primary responsibilities include identifying state priorities in its coastal zone; designing and enforcing comprehensive coastal protection programs; coordinating inter-agency state policies; providing matching state funds; ensuring that state and federal agencies are aligned with the policies of a CZMP; providing technical assistance to local governments; and ensuring public involvement in a CZMP in all management phases;

⁷⁷ Report of the scientific and technical Working Group Maryland Commission on Climate change, https://mde.state.md.us/programs/Air/ClimateChange/Documents/FINAL-Chapt%20%20Impacts_web.pdf, (Last accessed on 15-04-2020).

⁷⁸ The Coastal Zone Management Act, 16 U.S.C. §§ 1451–1464 (1972).

⁷⁹ Congressional Research Service, Coastal Zone Management Act (CZMA): Overview and Issues for Congress, (January 15, 2019), <https://crsreports.congress.gov/R45460>, (Last accessed on 20-04-2020).

Given that local (county and municipal) governments in the United States have major powers of land use, they also play an important role in coastal management. Its duties include establishing and implementing local land and water laws, organizing local inter-agency programs, fostering outreach and awareness and providing a forum for public engagement on related issues.

Key Features and Scope

The program is managed by the National Oceanic and Atmospheric Administration (NOAA) Office of Management Ocean and Coastal Resources. The coastal zone of each state stretches three miles to the sea, and inland to the degree appropriate to control the activities and areas the state considers necessary to meet federal standards. The federal plan offers states two opportunities to engage in the program. The first is federal funding to develop a State CZM plan and then, once approved, long-term financial assistance to execute the program.

The second is 'federal consistency,' the legislation requiring federally sponsored/funded acts to be compatible with the coastal system policies and procedures of the state. Any states that have a CZM program in place used this provision to limit the production of oil and gas reserves offshore. The CZMP was unique when first adopted in that it set specific conditions for public involvement in all planning and decision-making processes, and set high expectations for intergovernmental cooperation. Congress recognized that integrated coastal management involves strong relationships between government agencies at all levels and needs among the public and affected stakeholders, who understand and actively support the priorities and management strategy of the system.

Significant Regulatory Guidelines to Develop a Coastal Program

State programs must comply with a variety of requirements to obtain federal approval including:

- An inventory and classification of areas of special concern (economic, cultural, historical, and environmental).

- Identification and methods of the authorities by which the State implements its policies and controls defined land and water uses a summary of the institutional arrangements and authorities to enforce the program (there are five forms recognized by NOAA regarding institutional arrangements).
- Specification of planning procedures for the location of energy facilities and the evaluation of shoreline degradation and restoration.

A series of legislative re-authorizations of the Act has made the topics and concerns to be resolved by state CZM programmes more detailed which includes:

- Protection of natural and cultural resources.
- Protection of people and properties from natural hazards.
- Revitalizing river fronts.
- Providing public access to ocean and marine areas.
- Enhancing marine water quality.

Key Methods in Management

Every State selects the resources that it will use to implement its CZM program. Some instruments are standardized and/or required. The authorizing states will specify certain activities that will be regulated in their coastal management plan, how they will be controlled and by what criteria. The goal is to ensure a consistent and reliable decision-making process for the public⁸⁰.

Nonpoint Pollution: The Coastal Nonpoint Pollution Control System that was introduced to the CZMA in 1990 aims to improve cooperation between state coastal programs and projects and local water quality programs. This initiative is conducted in collaboration with the Environmental Protection Agency and the Clean Water Act provides for its mandate. The program focuses on local-scale mitigation through such initiatives as land-use planning and zoning.

⁸⁰ US Coastal Zone Management Program, coastalwiki, http://www.coastalwiki.org/wiki/US_Coastal_Zone_Management_Program, (Last accessed on 20-04-2020).

Issue-based Management: The Enhancement Grant Program (EGP) was developed to concentrate implementation efforts on a number of particular problems defined by the original Act and subsequent reauthorizations. The combined impacts of construction decisions, water pollution and conservation of wetlands, public access, aquaculture and coastal hazards were of significant concern.

Special Area Management Plans: The CZMA encourages states to create Special Area Management Plans (SAMPs) that are geographically oriented across various jurisdictions to resolve a mix of problems in a single locale in a systematic way. SAMPs strive to fine-tune policies to the specific combination of concerns and needs in a particular region. SAMPs have been used in a range of geographic settings ranging from water fronts and ports to watersheds and estuaries. Their successes can be attributed to clear limits, set concrete goals and objectives, strong local engagement and successful delivery processes designed to achieve desired outcomes efficiently.

Funding

The four funding forms applicable to the coastal zone management programmes are⁸¹:

1. Administrative Grants

The Office for Coastal Management (OCM) provides matching funds for the CZMP to governments.

2. Coastal Resource Improvement Program States can spend half of their Section 306 funds on small-scale construction or land acquisition projects aimed at improving "public coastal access, facilitating urban waterfront redevelopment, or preserving and restoring coastal resources".

3. Coastal Zone Enhancement Grants in compliance with Section 309 of the Office for Coastal Management (OCM), zero match funds are given for state coastal zone management projects to improve the state system

4. Congress is matching funds regarding Coastal Nonpoint Pollution Control Program (Technical Assistance) to system developed by the states.

⁸¹ Office for Coastal Management, Funding Opportunities, <https://coast.noaa.gov/funding/>, (Last accessed on 20-04-2020).

PROVISIONS OF COASTAL ZONE MANAGEMENT ACT

The following are the provisions under the coastal zone management act:

➤ 16 U.S.C. § 1451. Congressional Findings (Section 302)

Congress finds a national interest in the security of coastal zones and their management. The coastal areas are important to the present and future development of the nation because of their "natural, commercial, recreational, ecological, industrial and aesthetic resources." Many stresses come from natural, residential and industrial lands on the coastal zone lands and these areas need to be maintained and protected. Man is destroying some of the habitats if lands are not maintained and covered, all beneficial uses can be lost forever. "In light of competing demands and the urgent need to protect and to give high priority to natural systems in the coastal zone"⁸² These areas will need to be prepared for any changes in water levels due to the potential for global warming.

➤ 16 U.S.C. § 1452. Congressional Declaration of Policy (Section 303)

In its national policy, Congress declares "to preserve, protect, develop, and, where possible, restore or improve the coastal zone of the Nation's resources for this and future generations"⁸³. This is supported by the numerous states and coastal regions that wish to engage actively in local, federal, and state programs. Such initiatives need to be aware of developments that impact the coastal areas and know how to respond.

➤ 16 U.S.C. § 1453. Definitions (Section 304)

A "coastal zone" is defined as the "coastal waters and the adjacent shore lands, as well as includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches."⁸⁴

⁸² Office for Coastal Management, Coastal Zone Management Act, <https://coast.noaa.gov/czm/act/>, (Last accessed on 20-04-2020).

⁸³ Legal Information Institute (Cornell Law School), Coastal Zone Management Act of 1972, https://www.law.cornell.edu/topn/coastal_zone_management_act_of_1972, (Last accessed on 20-04-2020).

⁸⁴ Id.

➤ 16 U.S.C. § 1454. Management Program Development Grants (Section 305)

These are granted to coastal states which have developed a management program approved by the Secretary⁸⁵.

➤ 16 U.S.C. § 1455. Administrative Grants (Section 306)

Funds will be awarded to coastal states setting up management schemes, through the Secretary. States must establish specific boundaries for the coastal zone to be controlled and protected, and describe the lands under management. The State shall hold public hearings for program development. The State Governor will also review and approve any amendments to the system. The State must also provide for a method of regulating local land and water use within the specified areas⁸⁶.

➤ 16 U.S.C. § 1455a. Coastal Resource Improvement Program (Section 306A)

The Secretary may award grants to a coastal state to help that state meet such requirements as the protection or renovation of areas designated under the program or having nationally important coastal resources. This also means setting up public beaches and more accessible coastal regions and waters. Funding may be used to buy more land, and low-cost development such as walls, parks, and trails.⁸⁷

➤ 16 U.S.C. § 1455b. Protecting coastal waters

Programs created, or applying for establishment, must have a general objective for coastal zone land uses. The state will include the determined region's vital coastal areas, defined management practices, and tools for technical assistance. For a group initiative, which involves public hearings and the right to public education, the state needs to determine how it can involve public engagement. States will show how they can create cooperation among local, state, and federal government entities and how the proposed zone boundary change can impact the system⁸⁸.

⁸⁵ Id.

⁸⁶ Supra N. 82.

⁸⁷ Id.

⁸⁸ Supra N. 83.

➤ 16 U.S.C. § 1456. Coordination and cooperation (Section 307)

If the plan is of interest to other Federal agencies, the Secretary is responsible for coordinating their set activities with this body.

➤ 16 U.S.C. § 1456-1. Authorization of the Coastal and Estuarine Land Conservation Program (Section 307 A)

Effective collaboration with local governments, state and other entities will provide the means to protect these areas under the Coastal Zone Management Plan and National Estuarine Reserve System. This is to conserve areas of significance with respect to 'recreational, ecological, historical or aesthetic values, or threatened by removal from their natural, undeveloped or recreational values of State The National Ocean and Atmospheric Administration Service (NOAA) will oversee the programs through the Ocean and Coastal Resource Management Office.

➤ 16 U.S.C. § 1456a. Coastal Zone Management Fund (Section 308)

➤ 16 U.S.C. § 1456b. Coastal Zone Enhancement Grants (Section 309)

Grants would be subject to specific constraints of coastal zone development targets. That means the state must strive to either preserve, rebuild or improve the coastal zone or create new wetlands. This also involves preserving and mitigating environmental risks and managing possible hazards; the areas will include places of public access relating to scenic, historical, or cultural value; and debris management and prevention.

➤ 16 U.S.C. § 1456c. Technical Assistance (Section 310)

The Secretary should set up a network to support the creation and introduction of the coastal management system into the State.

- 16 U.S.C. § 1457. Public Hearings (Section 311)

Hearings will be announced 30 days in advance and will include the public viewing details of the studies and results. This is similar to the effect that when the agency is aware of it, data details would be available for public viewing.

- 16 U.S.C. § 1458. Review of Performance (Section 312)
- 16 U.S.C. § 1459. Records and Audit (Section 313)
- 16 U.S.C. § 1460. Walter B. Jones Excellence in Coastal Zone Management Awards (Section 314)
- 16 U.S.C. § 1461. National Estuarine Research Reserve System (Section 315)
- 16 U.S.C. § 1462. Coastal Zone Management Reports (Section 316)
- 16 U.S.C. § 1463. Rules and Regulations (Section 317)

The Secretary will develop and regulate as necessary to implement the provisions of this chapter, subject to the influence of local, state, and federal agencies, including port authorities and other interested parties.

- 16 U.S.C. § 1464. Authorization of appropriations (Section 318)
- 16 U.S.C. § 1465. Appeals to the Secretary (Section 319)

NATIONAL ESTUARINE RESEARCH RESERVE SYSTEM

This system comprises of 29 coastal sites whose primary duty is to engage in long term research, environmental monitoring and creating awareness so as to help communities and nation meet coastal management goals. The first reserve designation was Oregon's

south slough research reserve in 1974. The most recent addition is the Heéia research reserve in Hawaii in 2017.⁸⁹ Under Section 315, the Office for Coastal Management provides funding to 28 State National Estuarine Research Reserves. Funding is used for backing of research, land acquisition, construction, education, monitoring, and graduate research fellowships.

The CZMA lays down the operational framework for the states to carry out their programs. The CZMA enables the states to exercise complete freedom while framing programs that best address local challenges and states can carry out their work by following local laws and regulations. This simply means that states could set-up programs in any way they wish, provided CZMA requirements are observed. These requirements are clearly laid down in section 306 of the CZMA. The states are never requested to formulate coastal management program by the CZMA, but states take part in this voluntarily and use their own authorities for carrying out their coastal management programs. Naturally an important question arises - what induces the states to be a part of national programme?⁹⁰

A number of incentives have been assured to the states. It provides a national framework and federal support for comprehensive state-wide coastal management. Provides funds for development of program, program administration and implementation, guidelines to address emerging issues. Access to helpful products and technical assistance. The CZMA depend upon federal-state partnership method for achieving coastal management goals. The program provides means by which state and federal expertise, policies, resources come together. The main role of the state is to implement programs, it works at both state level and local level for that purpose. The federal role is taken up by NOAA, which administers the National Coastal Zone Management Program and aids implementation of programs by states.⁹¹

The proposals of the coastal states are assessed by secretary of commerce of federal government and they determines the extent of grants to allow accordingly. The secretary has been entrusted with the duty of conducting an audit of the performance and has the authority to discontinue financial assistance at any time if the programs are

⁸⁹ Supra N. 71.

⁹⁰ Id.

⁹¹ Id.

found ineffective. The advices to the secretary is provided by the Coastal Zone Management Advisory Committee on policy relating to coastal zone.⁹²

CZMA ensures that all the programs on coastal areas are evolved and implemented after taking into consideration the opinion and suggestions put forward by the interested parties like federal agencies, state agencies, local governments, regional organisations, coast authorities etc. therefore coastal zone management system adopted in US gives importance to public participation at the levels of Federal, State and Local Government. Each state has enacted its own coastal laws. These laws either imposes permit system to control developmental activities in coastal wetlands and other coastal areas, or lays down regulations with state review of local plans.⁹³

COASTAL ZONE REGULATION IN UNITED KINGDOM

The coast in UK has great economic, environmental and societal value. The coastal zone in UK includes indoor water, inter-tidal water, and marine land. A number of measures have been taken for safeguarding the environment. Commercial activities in the coastal zone are regulated by a licensing system. The efforts taken for preservation and protection of coastal stretches take different form as designation of National Parks and areas of outstanding natural beauty and recognition of coastal heritage. UK possessed powers to have control over its internal waters and fishery limits of its vessels in international waters.

COAST PROTECTION ACT, 1949

The Coast Protection Act 1949 is "An Act to amend the law relating to the protection of the coastline of Great Britain against erosion and encroachment by the sea"⁹⁴. The Act, therefore, relates to the protection of the coastline from permanent erosion or permanent occupation of the land by the sea, as opposed to temporary flooding events which are covered by the Water Resources Act, 1991 and the Land Drainage Act, 1991.

⁹² Id.

⁹³ Id.

⁹⁴ Coast Protection Act 1949, <https://www.legislation.gov.uk/ukpga/Geo6/12-13-14/74/1992-07-15>, (Last accessed on 24-04-2020).

The prevention of coastal erosion comes under the remit of the maritime district council, which nowadays includes city councils and unitary authorities. The council within each maritime district shall be the coastal protection authority for the district. It will assume powers to perform such duties in connection with the protection of land in their areas imposed by this Act⁹⁵.

A Coast Protection Board can be convened by the Minister consisting of the coast protection authority, Environment Agency, harbour authorities, local sea fisheries committees, country conservation authority, crown estates and any other body having any powers or duties for the coast within this area⁹⁶. However, to date, no coast protection boards have ever been set up under Section 2.

As the coast is a dynamic system and works on the coast can potentially affect other users and uses of the coast. Therefore, a detailed consultation process is required (French, 1997). At present, while there is no compensation for the loss of land or property through natural processes, any such loss demonstrated to be caused by adjacent works is compensable. Each Coast Protection Authority (CPA) is given the powers to carry out protection works whether inside or outside their area as may appear necessary for the protection of any land⁹⁷. Land can also be made available through compulsory acquisition for work or repair to enable the CPA to carry out work. Any proposed work must be advertised in one or more local papers and made known to the other authorities previously mentioned in section 2 (a-e). Any sustained objection to the notice shall give rise to a local inquiry.

Sections 6-7 detail the preparation and confirmation of 'Work Schemes' whereby the scheme shall indicate the nature of any work, specify the work to be undertaken and give an indication of the cost. The scheme will then be advertised and circulated for public consultation and review. Once a works scheme has been confirmed by the Minister the authority shall have the power to take all necessary steps towards carrying out the work⁹⁸. This "works scheme" procedure detailed in Sections 6-11 has now been discontinued. All the following sections and schedules set out various supplementary provisions concerning coastal protection works. Where it appears to a CPA that the

⁹⁵ Section 1 of Coast Protection Act, 1949.

⁹⁶ Section 2 (a-e) of Coast Protection Act, 1949.

⁹⁷ Section 4 (1) of Coast Protection Act, 1949.

⁹⁸ Section 9 of Coast Protection Act, 1949.

coastal defences require repair to give sufficient protection to the land, the authority may serve on the owner and occupier of the land on which the works are situated, a notice specifying the work necessary⁹⁹. Grants are payable to maritime District Councils who wish to protect their coastlines against erosion.

Scotland

In Scotland, the Coast Protection Act, 1949 is also applicable with the regional and island councils being the coast protection authorities under the Act. The Coast Protection Act 1949 empowers coast protection authorities (islands councils and councils of regions adjoining the sea) to carry out such coast protection work as may appear to them to be necessary or desirable for the protection of any land in their area¹⁰⁰. The Scottish Executive must authorise certain coast protection work¹⁰¹. This legislation does not specifically refer to conservation and environmental concerns, but the Scottish Executive has directed that these matters should be taken into account in all assessments and procedures.

Northern Ireland

In Northern Ireland, there is currently no statutory provision governing measures to combat coastal erosion. Responsibilities for carrying out essential coastal protection works to combat the effects of erosion is currently shared between three Government Departments based on the formula (known as the Bateman Formula) agreed in 1967¹⁰². This formula states that:

- the Ministry of Commerce (relevant functions now carried out by the Department of Enterprise, Trade & Investment for Northern Ireland (DETI)) would be responsible for schemes related to tourism or harbours;
- the Ministry of Development (relevant functions now carried out by the Department of the Environment (DoE)) would deal with schemes where

⁹⁹ Section 12 of Coast Protection Act, 1949.

¹⁰⁰ Section 4 of Coast Protection Act, 1949.

¹⁰¹ Section 6 of Coast Protection Act, 1949.

¹⁰² S Boyes, L Warren & M Elliott, Summary of Current Legislation Relevant to Nature Conservation in the Marine Environment in the United Kingdom, Institute of Estuarine and Coastal Studies University of Hull, July 11th, 2003.

there is a road or promenade interest, for which the Ministry of Commerce would have no responsibility;

- The Ministry of Agriculture (now Department of Agriculture and Rural Development (DARD) would be the sponsor without a portfolio of any essential schemes not falling within (a) or (b).
- Any works to combat erosion are subject to DoE approval.

COAST PROTECTION

The Department for Environment Food & Rural Affairs (DEFRA) is responsible for protecting the coastline from floods and erosion. Nonetheless, in compliance with legislation, responsibility for the coastline is divided among various maritime authorities; these are empowered under the 1949 Coast Protection Act to carry out works in their area to protect the coast from erosion.

The Environment Agency undertakes the construction and maintenance of coastal flood resistance works in compliance with the Water Management Act 1991. Under the Coast Protection Act 1949, we have powers to protect the land from coastal erosion. Such powers are permissive, meaning that they include authority to carry out flood control and coastal protection activities but do not allow the operating authorities to carry out those activities¹⁰³.

Shoreline Management Plan (SMP)

Shoreline Management Plan is a non-statutory, coastal security planning policy document that guides how the coastline will improve in the long term. It is established in collaboration between local authorities, regulators and other interested parties¹⁰⁴.

It helps the planners and regulators to plan and control how the coast is going to change. This may be by preserving or strengthening defences, allowing natural processes to play

¹⁰³ Vale of Glamorgan Council Cyngor Bro Morgannwg, Coast Protection, <https://www.valeofglamorgan.gov.uk/en/living/Flooding/Flood-and-Coastal-Erosion/Coast-Protection.aspx>, (Last accessed on 24-04-2020).

¹⁰⁴ Id

a greater role, creating new natural environments or helping areas at risk of flooding to cope with and mitigate the effect of flooding events in the future¹⁰⁵;

- Identifying challenges to established, historical and natural ecosystems with changes in the coast,
- Policy framework for managing risks sustainably,
- Large-scale assessment of the coastline - Identify the natural forces that shape the shoreline and forecast, as much as possible, how the coast will change with erosion, sea-level rise and climate change over time.

An SMP sets out Coastal Defence Management Strategy only. It does not set policy for any other manner of controlling flood risk (such as land drainage) or coastal property management. The coastline is divided into 'Policy Units' sections. The SMP will suggest one of the four policy options below for each segment¹⁰⁶:

- No Active Intervention - Neither create new defences nor maintain or improve existing defences.
- Hold the Existing Line of Defence - Maintenance of existing defences in their present place, with climate change and sea-level changes.
- Managed Realignment - Landward removal of defences, give up some land to the sea to form a more secure long-term defence.
- Advance the Existing Line of Defence - Movement of the defences at sea.

Local authorities and regulators with shoreline protection obligations will be expected to implement the SMP and make their decisions based on the policy choices found in the Strategy. It will help ensure that future projects, for example, are not put at greater risk of floods or coastal erosion.

Severn Estuary Coastal Group

The Severn Estuary Coastal Group disseminates best practice and manages the preparation of Shoreline Management Plans (SMP2) for the new generation. Estuary Coastal Group aims to¹⁰⁷:

¹⁰⁵ Id.

¹⁰⁶ Id.

¹⁰⁷ Id.

- Encourage a pragmatic approach to shoreline management in line with recommendations from the Welsh Government.
- Provide a forum for collective financing of strategic research, tracking and achievement of high-level goals.
- Facilitate knowledge exchange among its members and the general public.
- Produce proactive coastal protection policies in light of normal coastal processes.
- They are providing strategic coastal protection duties for more than 200 km of coastline (asset value of about £100 m).

ENVIRONMENT PROTECTION ACT 1990

The foreign vessels which polluted the water immediately outside its territorial waters is completely out of control of United Kingdom as its powers was limited to ‘United Kingdom Controlled Waters’ instead of ‘United Kingdom Waters’. This limitation on powers was overcome with the enactment of the Environmental Protection Act 1990. This act substituted the term ‘United Kingdom Controlled Water’ with ‘United Kingdom Waters’ thereby widening the prohibition on unlicensed dumping and incineration. With the coming into force of Environment Protection Act, UK could exercise its power not only to its own vessels located anywhere in the world but even to foreign vessels whose activities fall within the prohibited categories if they are done within the limits of UK continental shelf. These are the measures taken in UK with a view to manage its coasts and they do have a direct impact on it.¹⁰⁸

The coastal zone in UK covers areas such as seaward and landward of the coastal line and the limits are determined on the basis of geographical extent of the coasts natural processes and human activities related to it. In order to recover the coastal environment that has been disturbed by developmental activities and for maintaining its beauty and resources , the contrasting interest of protecting environment on one hand and development on the other need to be balanced. The government adopts a public participation approach in decision making related to developmental plans in coastal areas.

¹⁰⁸ P Leelakrishnan, Environmental Law of India, Lexis Nexis, Haryana (5th edn, 2019).

UNITED KINGDOM INTEGRATED COASTAL ZONE MANAGEMENT

Throughout the years, the different UK governments (Scotland, Wales and Northern Ireland) have collectively adopted Integrated Coastal Zone Management (ICZM) strategies, with their approaches to their varied coastlines. Because of this "historically rooted piecemeal development" of a complex legislative and regulatory framework relating to ICZM, the UK is currently facing a lack of a strategic overarching national approach to its coastal zone¹⁰⁹. The EU recommendation drove them to a 'Report from the United Kingdom', wherein their experiences of implementing the EU recommendation are given.

The ICZM strategy of the UK compares its activities with the principles mentioned in the EU recommendation. It reasons that the principles "local specificity, the involvement of all parties and long term planning have been taken forward most successfully in coastal planning and management"¹¹⁰. The results from the stocktake suggest that local ICZM works best, where specific disputes need to be resolved. We also say that "not every inch of the UK coast needs to have ICZM in place." Nevertheless, three key measures are suggested for potential production of ICZM in the UK. Firstly, establishing stable funding mechanisms to help ICZM; secondly, designing stronger leadership at all levels (national, regional, local); and thirdly, involving more stakeholders at all levels in the ICZM process. The latest trend is not to further expand the plan, but to incorporate the principles of ICZM in the new 'UK Marine Bill'¹¹¹.

Formal Implementation

The UK has a complex legislative and regulatory framework in place that applies to ICZM. The different sectors and rates are not organized within a cohesive framework and have minimal support for land-sea interface related issues. Besides, the UK is facing with the current lack of a strategically cohesive national solution to its coastal region¹¹².

¹⁰⁹ Tim Nandelstaedt, Development of Guidelines for Integrated Coastal Zone Management in Germany, Technical University Berlin, Germany (March 2008), <http://www.ikzm-oder.de/en/download.php?fileid=3359>, (Last accessed on 24-04-2020).

¹¹⁰ Id.

¹¹¹ Id.

¹¹² Id.

Responsibilities and Tasks

UK's striking ICZM problems are participatory ways of organization. It would seem that stakeholder engagement and conversations with all of them are the most compelling subject of all strategies. Atkins emphasizes that the key result of the ICZM process in the UK can be seen as stakeholder engagement and public debate. Therefore, there are different lessons learned about responsibilities and tasks, particularly for the local level. Since the lessons learned to apply to both positive and negative experiences, both experiences are also the basis for the following lesson. Coastal forums play an important role in ICZM growth and its presence in the UK. A coastal committee is a permanent working group concerned with coastal and marine issues. In the UK, the creation of national coastal fora has a history. There are numerous experiences with coastal fora around the UK, as Atkins said. Such groups' greatest strength is an ability to network, stay up-to-date, share information and raise topics for discussion. Their willingness to influence government policy and promote change on the ground is one less positive factor. A part of the reason for this can be seen in the forums' open existence and their informal ties to policy creation. The issue that emerged is the "consultation fatigue" phenomenon, due to a large number of initiatives in the UK¹¹³. However, the guiding force behind many ICZM initiatives has been a willingness to resolve problems of local concern, in the absence of any legislative basis for ICZM processes at the local level. These are often addressed by coastal forums and partnerships which make ICZM important to local people but have also encouraged practical solutions to be created.

COMPARISON WITH THE INDIAN SCENARIO

The Indian scenario regarding the coastal zone management is that India doesn't have a legislation as such while in US and UK there are legislations. The coastal zone management is given much importance in both countries taking the aspect of climate change, over-exploitation of natural resources and habitat protection. There is no proper research centre for the purpose of coastal zone like the National Estuarine Research Reserve System in USA or the Estuary Groups in UK whose primary duty is to engage

¹¹³ Id.

in long term research, environmental monitoring and creating awareness so as to help communities and nation meet coastal management goals. The need for an effective coastal zone management plan and a shoreline management plan is essential to stabilise ecologically sensitive areas. The awareness regarding the laws in India regarding the coastal zone is minimal and the authorities are unaware of how important coastal zones are for the environment otherwise disputes such as *The Secretary Kerala State Coastal Management v. DLF Universal Limited*¹¹⁴, would not have occurred in the first place. The recent CRZ Notification 2019 have not considered the concerns of the people who live near the shore lines which and also has opened doors for further exploitation of coastal resources.

CONCLUSION

Coastal zone management plays an essential role in problem-solving. It encompasses the management of all aspects of the coastal zone, and mainly it includes management of existing economic activities, planned developments, natural resource conservation and utilization, as well as being able to deal with the different user conflicts. For an active practice of coastal zone management, planners need to understand the way the natural environment and human activities are interconnected to form a system. Policies are also useful tools that provide flexibility in setting up management structures. It allows an action to be taken in measures and executed in suitable time frames, so long as it meets the objective. It also provides for flexibility in choosing the mode of implementation.

For overall development of the coastal zone the need to set up a clean-up project and initiate an integrated coastal zone management approach to reduce coastal degradation through enhancing regulatory policy and governance of the coastal zone; land use and regional planning, and institutional capacity; initiating targeted municipal and community investments in the coast to improve environmental conditions, enhance cultural resources and encourage community development. The coastal zone management in India can improve by adopting measures and policies from developed countries like USA and UK.

¹¹⁴ (2018) 2 S.C.C 203.

CHAPTER - 4: COASTAL REGULATION NOTIFICATION 2019

INTRODUCTION

Coastal Regulatory laws were established with the goal of regulating human and industrial activities along the coast in order to preserve and protect the fragile ecosystems near the sea. Originally, the CRZ laws, imposed by the Environment Protection Act, were introduced in 1991. These rules restricted certain types of activities, such as large buildings, the establishment of new industries, storage or disposal of hazardous materials, mining, reclamation and bundling, within a certain distance of the coastline. The reasoning behind such legislation is that coastal areas are extremely sensitive, home to many species of marine and aquatic life, including animals and plants, and since they are also threatened by climate change, they need to be protected from unregulated development.

The highly restrictive nature of the CRZ laws has caused the states to make frequent complaints. They argued that if these laws were to be strictly enforced, that would not even allow the construction of decent homes for people living near the coast and carrying out simple development work. The 1991 CRZ Rules stood as an obstacle for industrial and infrastructure projects such as the POSCO steel plant in Odisha and the proposed Navi Mumbai Airport.¹¹⁵

In 2011, the Central Government made the fresh rules addressing the concerns that various states raised. Exemptions to build Navi Mumbai Airport were made. The POSCO projects have failed to take off due to other reasons. Projects of the Department of Atomic Energy, which plans to set up nuclear plants near the coast, were exempted.¹¹⁶

Though these rules addressed the concerns raised by various stakeholders, they were still found to be insufficient. The Ministry of Environment and Forest, under then Earth Sciences Secretary Shailesh Nayak, set up a six-member committee to provide

¹¹⁵ Shaju Philip and Amitabh Sinha, Coastal regulation zone: how rules for building along coasts have evolved, *The Indian Express* (14 May 2019), <https://indianexpress.com/article/explained/coastal-regulation-zone-how-rules-for-building-along-coast-have-evolved-5726052/>, (Last accessed on 9/02/2020).

¹¹⁶ Id.

suggestions for a new set of CRZ laws. The Shailesh Nayak Committee submitted their report on CRZ in 2015. On January 19, 2019 the Ministry of Environment and Forest issued a draft notification on the basis of the committee report and other information and invited suggestions and recommendations from the general public. In consideration of the general public's concerns and feedback, the MoEF issued a new notice commonly referred to as the Coastal Regulation Zone Notification 2018, but this was only issued on January 19, 2019. To be exact over the past 27 years, the CRZ notification has been iterated twice and modified 34 times, thereby making it the most amended law in the history of India.¹¹⁷

BACKGROUND

Kanchi Kohli of the Centre for Policy Research¹¹⁸ opines that "The objective of the latest notification is fundamentally different from the earlier ones". This can be well explained by comparing the provisions of the CRZ Notification 2019 with that of 2011. As per the CRZ Notification 2011 CRZ-I constitutes the most ecologically sensitive areas like mangroves, coral reefs and sand dunes and intertidal zone. Non Developmental Activities were permitted in these areas except for defence and strategic and rare public utility projects. However as per the 2019 notification the CRZ-I has been categorized into CRZ-IA and CRZ-IB. It permits eco-tourism activities such as mangrove walks, tree huts, nature trails etc. in these eco-sensitive areas which are demarcated under CRZ-IA. In addition to this sea links, salt harvesting and desalination plants and roads on stilts are also permitted in CRZ- IA. In CRZ-IB land reclamation is permitted for constructing ports and sea links this will obviously bring about an adverse impact on the coastal ecology.¹¹⁹

The MoEFCC said that the new notification, issued under Section 3 of the Environment Protection Act, 1986 seeks to "to promote sustainable development based on scientific principles taking into account the dangers of natural hazards, sea level rise due to global warming" and to conserve and protect the unique environment of coastal stretches and

¹¹⁷ Ishan Kukreti, Coastal Regulation Zone Notification: What development are we clearing our coasts for, DownToEarth, <https://www.google.com/amp/s/www.downtoearth.org.in/coverage/governance/amp/coastal-regulation-notification-what-development-are-we-clearing-our-coast-for-63061>, (Last accessed on 12-02-2020).

¹¹⁸ A Delhi based Think Tank.

¹¹⁹ Supra N. 117.

marine areas, besides livelihood security to the fisher communities and other local communities in the coastal areas.¹²⁰

MAJOR CHANGES IN THE NEW CRZ NOTIFICATION

Through the CRZ notification 2019 the Central Government has made significant changes in the coastal regulation regime. By issuing this notification the Central Government has made significant relaxation of development restrictions imposed along the coast by the Coastal Regulation Zone Notification.

According to the CRZ notification 2011, in the CRZ II category, Floor Space Index (FSI), or the Floor Area Ratio (FAR) had been frozen as per 1991 Development Control Regulation (DCR) levels. Whereas in the 2019 notification, it has been decided to de-freeze the same and permit FSI for construction projects, as prevailing on the date of new notification. This makes possible the redevelopment of these areas to meet the emerging needs.¹²¹ This enables the builders to increase the floor area ratio or floor space index and they could now build resorts and other tourism facilities.

The CRZ III i.e. rural areas, has again be subdivided into CRZ III – A and CRZ III-B. Those densely populated rural areas with a population density of not less than 2161 per square kilometre as per 2011 census falls into the category of CRZ III A. This category has a No Development Zone (NDZ) of 50 m from the HTL as against 200 m from the high tide line in the CRZ notification, 2011 because these areas have similar characteristics as urban areas. Those areas with population density of less than 2161 per square are categorized into CRZ- III B and such areas continue to have NDZ of 200 meters as mentioned in the 2011 notification.¹²²

As per the 2011 notification, hotels and beaches were also permitted in CRZ-III area which is relatively undisturbed that do not fall into either CRZ-I or CRZ-III. However such construction were not allowed in the NDZ of CRZ-III, which extends landwards up to 200m from HTL. The 2019 notification has relaxed the NDZ to 50 m from the

¹²⁰ “New coastal regulation zone notification issued by the central government”, Live Law (23 January 2019), available at <https://www.livelaw.in/new-coastal-regulation-zone/news-142325>, (Last accessed on 12-02-2020).

¹²¹ Press Information Bureau, Cabinet approves Coastal Regulation Zone (CRZ) Notification 2018, <http://pib.nic.in/newsite/PrintRelease.aspx?relid=186875>, (Last accessed on 14-02-2020).

¹²² Id.

HTL in areas where the population exceeds 2,161 per sq. km. In fact this permits construction of resorts and tourism facilities very close to HTL.¹²³

The construction of temporary tourism facilities such as shacks, toilet blocks, change rooms, walk ways constructed using inter lock blocks, drinking water facilities are permissible in beaches. These temporary tourism facilities are allowed in the No Development Zone of the CRZ III area. This is subject to the maintenance of minimum distance of 10 meter from HTL.¹²⁴

The procedure for CRZ clearances has been streamlined. Only such activities or projects which are located in the CRZ-I (ecologically sensitive areas) and CRZ IV (area covered between low tide and 12 nautical miles seaward) shall be dealt with for CRZ clearance by the Ministry of Environment, Forest and Climate Change. In the area falling within the CRZ II and CRZ III the powers for clearances have been delegated at the state level with necessary guidance.¹²⁵

A No Development Zone of 20 meters have been stipulated for all islands close to the main land coast and for all backwater islands in the main land, taking into consideration the space limitations and unique geography of such regions, for bringing uniformity in treatment of such regions.¹²⁶

Special importance have been accorded to all the ecologically sensitive areas and special guidelines which deals with the conservation and management plans have been provided as part of the CRZ notification. Sundharban region of West Bengal and other areas such as Gulf of Khambat and Gulf of Kutch in Gujarat, Achra-Ratnagiri in Maharashtra, Karwar and Coondapur in Karnataka, Vembanad in Kerala, Gulf of Mannar in Tamil Nadu, Bhitarkaniha in Odisha and Krishna in Andhra Pradesh are identified as Critically Vulnerable Coastal Areas. Pollution in ecologically sensitive coastal areas is matter which draws special attention. Therefore installation of treatment facilities in coastal areas have been made permissible in CRZ- I B. However this is subject to necessary safeguards¹²⁷.

¹²³ Supra N. 117.

¹²⁴ Supra N.121.

¹²⁵ Id.

¹²⁶ Id.

¹²⁷ Id.

The coastal regulation zone notification 2019 gives a green signal to tourism activities in ecologically sensitive areas. Tourism sector being the major contributor of revenue, all possible support has been given by the Government for promoting tourism and it has also been one of the greatest creator of livelihood and jobs. The notification issued by MoEFCC on January 19, 2019 seems to dilute coastal protection rules and thereby threatens coastal and fishing communities which is spread across a large number of villages on the Indian coastline¹²⁸.

IMPACT ON TOURISM INDUSTRY

Tourism infrastructure projects like construction of resorts are expected to come up in the future times along the coastal areas. The notification issued by the MoEF seems to permits tourism activities in ecologically sensitive areas. The State Government and the Government of Union territory are required to prepare plans for facilitating tourism. The Government is of the opinion that the new notification will set in motion lot of activities in coastal areas and bring about economic growth in the country at the same time it respects the conservation principles of coastal regions. The new changes are expected to create more employment opportunities and thereby adds quality to life of people and value to the economy of the country. The CRZ notification 2019 is expected to go a long way as it will help in meeting the aspirations of people whose lives are directly affected by the coasts and related resources.¹²⁹

The CRZ notification 2019 and the IPZ 2019 together permits the development of infrastructure on beaches and close to the shore. This is expected to attract more beach tourism. People with deep pockets can now spend their holidays on private beaches, untouched and unbothered by the sights and smells of the real India.

The repeated demands to review and relax the CRZ 2011 notification by the tourism and real estate sector could be regarded as the major reason behind the issuance of new notification by MoEFCC. In spite of having such a long coastal stretch, the strict CRZ rules made the development of coastal areas for tourism an impossible one. India was

¹²⁸ National Fish workers Forum, Coastal Regulations in India: From Protection to Destruction, 2018.

¹²⁹ Notification 2018- What's in store for tourism? (25 April 2019), travelbizmonitor, <http://www.travelbizmonitor.com/Features/crz-notification-2018--whats-in-store-for-tourism-43500>, (Last accessed on 15-02-2020).

not able to explore its potential in the field of tourism. The CRZ regime in the country has always been a disappointment to the tourism sector, but however, the new notification is all set to rewrite history.

The tourism industry in the country has been citing the example of other destinations like South and South East Asia which uses their coastline for beach tourism so as to ensure livelihood security to the people and thereby overall economic prosperity. A lot of coastal states also have adopted liberal rules to leave open islands for developments.¹³⁰

The notification permits tourism activities even in highly eco-sensitive areas. Again the decision was taken to divide CRZ III category in CRZ –III A and CRZ III B has been welcomed by the tourism industry because it will permit infrastructure development in densely populated rural areas with a population of 2161 per sq. km with an NDZ of 50 m from HTL as against 200 m in the 2011 notification. The tourism industry would benefit hugely by this subdivision and relaxation of rules because resorts could be constructed close to the beaches as the 200 meter of NDZ has been done away with in many places. Most of the tourist prefer to stay in resorts closer to the sea; constructions very next to beaches help the hotel/resort owners to grab more money by attracting more tourist. An NDZ of 20 m has been fixed for all islands close to coasts as well as in the backwater.¹³¹

The petition presented by various coastal states led the central government to review and make amendments to the earlier notification. Government of Karnataka, led by then Chief Minister Siddaramaiah, argued in favour of relaxation to undertake the development of residential units in fishing villages and to encourage tourism with the southern state finding 41 beaches and 11 islands with strong tourism potential but weak infrastructure. Different were the claims from Kerala, where the Oommen Chandy government too sought relaxation in the CRZ law to increase tourism in backwaters and beaches (10 percent of Kerala's GDP comes from tourism) as well as building

¹³⁰ Id.

¹³¹ Id.

development in coastal villages. Nine of the 14 districts in Kerala are coastal districts and as many as 246 panchayats are affected by CRZ rules.¹³²

Kerala's tourism sector seems to be on cloud nine with the approval of the latest notification, as we can expect more beachside properties and waterfront properties. Mostly tourist enjoy properties that have a view of the beach, but due to the CRZ restrictions the number of these properties was very limited, or we can claim they did not exist because it was impossible to develop seaside properties in Kerala. The new notification removes these difficulties and would be a great relief to people engaged in hospitality.¹³³

The Central Government claims the notification to be a significant one as it will be helpful to both businesses and the people living close to the coastline. It is also expected to provide relief to a lot of people in those states where the availability of land is minimal, and population density is high. As per the 2011 notification, even the ordinary people were restrained from building houses or adding rooms to their existing houses because of the No Development Zone (NDZ) in areas close to the coastline or backwaters.¹³⁴

It is obvious that the new notification will be a big boost to the tourism industry, and there are no doubts as to perks to the tourism industry. The question which is to be paid much attention is what impact the notification will create on the ordinary people? Whether the notification is more in favour of tourism industry? Whether this will end up in realtors purchasing the lands owned by the local people by offering huge amount for their property?

Those who are in favour of tourism are of the opinion that the notification laws provide the region of growth with population density, and that would not bring much improvement and would only benefit a small portion of coastal areas. Only certain areas in the urban areas near to the shoreline benefit from the notification. It does not necessarily contribute to the construction of new buildings, but it can only help to regularize those already existing.

¹³² Kalyan Ray, "New CRZ rules may spell doom for our coasts" Deccan Herald (March 31, 2019), <https://www.deccanherald.com/specials/insight/new-crz-rules-may-spell-doom-for-our-coasts-726065.html>, (Last accessed on 15-02-2020).

¹³³ Id.

¹³⁴ Id.

It thus makes it clear that the whole idea behind such classification is to leave open only those coastal areas that the States consider as suitable for tourism growth. The MoEFCC intended to deal differently with different areas, depending on the particular characteristics of each region.

While it is found that the regulations benefit the tourism industry, it is important to take a conservative approach to maintain innovations over a longer period of time. If the sensible coastal areas are left open for development, there should be proper compliance mechanism. All the countries around the world that opened up their beaches ensured they had a very tight compliance process. Naturally, as coasts are exposed to construction activities they are subject to different problems connected with it. Depletion of natural resources and waste management are some of the direct consequences of these developments.¹³⁵

Of course our country has to occupy one of the best place among the tourist nations all over the world. And we are not against development, but the question is whether we desire a developed nation at the expense of the environment. The Central Government is trying to justify the relaxation of CRZ by pointing out the benefit it provides through creating more job opportunities and lifting people out of poverty, but then one must not forget the fact that how can people exist without environment. It is no longer possible to treat to people and environment independent of one another. They are too closely linked that one cannot exist without another, they are in fact co-dependent.¹³⁶

IMPACT ON CONSTRUCTION SECTOR

The relaxation of No Development Zone (NDZ) is to benefit only the commercial sector and not the ordinary people. The notification claims to be a great relief for coastal area residents as it is now legal to build a house if it is situated beyond 50 m from HTL. It should be remembered, however, that having housing facilities just 50 meters from the coastline would increase exposure to extreme weather events. When the notification was published by the MoEFCC, it has received a lot public attention. It is because it really seriously impacts people from the coastal regions. The CRZ rules have gained media attention even before the release of the latest notification in 2019. It acted as a

¹³⁵ Id.

¹³⁶ Id.

ban on building in coastal areas. Therefore ordinary citizens are prohibited from constructing homes.

Building schemes by major real estate companies are advancing at the same time. There have been cases where the start of building of these real estate groups in the CRZ areas without obtaining the necessary approval and later when an environmentalist or social worker suit has been brought by the judiciary in favour of these builders. The Supreme Court's decision in *The Secretary Kerala State Coastal Management v. DLF Universal Limited*¹³⁷ can be cited as the best example for this. In this case the Supreme courts final decision was that, even if there is violation those building which are already constructed need not be demolished. The huge amount of money involved and the environmental pollution resulting from such demolition are main reason which influenced the court in adopting that decision. Huge amounts were imposed as fine on the defaulters. However these amounts were not so big to the builders who had deep pockets. Well, money cannot always be a good substitute, the environmental problems caused through such construction activities could never be compensated by this money.

All this shows that only common man is badly affected through this and big projects are proceeding. The new notification states that in backwater islands only 20 meter is regarded as No Development Zone (NDZ) which means construction activities could take place adjacent to backwaters beyond 20 meter, but at the same time, another important feature is that, those buildings which are already in existence within the 20 meter could not be renovated or reconstructed beyond the area which is already there.

IMPACT ON COASTLINES

The CRZ III has been again subdivided into CRZ III A and CRZ III B on the basis of population. According to the notification provisions in areas falling under CRZ III, while construction of houses is not permissible, resorts and hotels may be built towards the land side of highways and other major roads. It is something that draws widespread opposition because there is no permit for local people living in those areas, though resorts and hotels are permitted.

¹³⁷ The Secretary Kerala State Coastal Management v. DLF Universal Limited (2018) 2 S.C.C 203.

Another matter which draws attention is the 20 meter No Development Zone (NDZ) in Backwater Island. This provides greater chances for major commercialists to buy lands for economic gain belonging to local citizens. The environmentalist and fisher folk made a lot of objections as soon as the government informed the new regulations, as they strongly believed that this regulation would lead to the degradation of the coastline by encouraging commercialization.

The 2019 notification contains certain terms which lacks the required clarity. For example terms like "strategic purposes", "public utilities" and "eco- tourism" are not clearly defined. This permits a wide variety of activities to be permitted near coasts which may be even undesirable. In the 2011 notification, those strategic and defence projects that were exempted from the application of CRZ rules were clearly specified whereas the new notification lacks such clarity. It was open for the Government to take a decision on whether a particular project is strategic or not, and hence it could open up even the CRZ- I areas for developmental activities.¹³⁸

The provision permitting temporary tourism facilities on the seaward side wherever there is a national or state highway in CRZ –III is detrimental, with no definition of what constitutes temporary, and with many of these being in reality quasi – permanent structures.¹³⁹ In addition to this increased tourism activities in the coastal areas would increase the groundwater intake from fragile coastal aquifers.

The development which the 2019 notification is expected to achieve is actually a one sided and destructive development. Although the Government says the new changes have been incorporated to ensure affordable housing to the local communities occupying the coasts, they in fact concentrate on promotion of tourism, without paying the required attention on the needs of local people. It is crystal clear that the rules have been framed to favour the tourism sector.

The end result would be disastrous, the developmental activities along the coast would cause damage to the coastal environment, coral reef and mangroves. In addition to this with the coming up of private beaches and resorts adjacent to beach, the ordinary people of the country are prevented from accessing the beach. These luxury resorts will drive away fishermen out of the beaches. Unfortunately the beach tourism is going to bring

¹³⁸ Supra N. 132.

¹³⁹ Id.

about great trouble for fisherman and other marginalized communities. It is obvious that these developments are going to take place at an enormous cost.

Though the CRZ 2019 notification will boost tourism and infrastructure, definitely these developments are going to adversely affect the environment. The interest of the powerful economic actors have been given more priority over the need to protect and conserve the coastal ecosystem and secure the livelihood of poor coastal communities that depend on the coastal resources for their livelihood. The notification has been prepared without taking into consideration of the interest of those peoples whose lives are directly affected by this. The grievances raised by the coastal communities were never paid attention to, the whole process has taken place without proper public consultation and policy deliberation.

MARGINALISING FISHERFOLK

The Coastal Regulation Zone Notification 2019 states that, it has been introduced after consultation with various stakeholders. The so-called consultation would have taken place with the members of tourism sector but not with the members of coastal communities. This is evident from the fact that the National Fish workers Forum (NFF) had strongly opposed these changes from the very beginning when the announcements were made regarding the review of the 2011 notification by Shailesh Nayak Committee.¹⁴⁰ They organized a nationwide protest against the Corporate and Government violators of coastal law. They have always expressed their concern and have never agreed upon the new notification.¹⁴¹

The new notification has failed to take into consideration the needs and interest of fisher folk. The concerns of the fisher folks finds no place in the notification. The 2019 notification though directly not threatening the lives of fishermen, in the course of time it will affect the livelihood of fisher folk occupying the 7500 km coastline of India. A larger portion of the coastal stretch are being used by the fishing communities for securing a livelihood, allowing any developmental activities along the coastal stretch

¹⁴⁰ Supra N. 128.

¹⁴¹ Manju Menon and Kanchi Kohli, "The coast is unclear: on the 2018 CRZ notification", The Hindu (17 January 2019), <https://www.thehindu.com/opinion/op-ed/the-coast-is-unclear/article26006723.ece>, (Last accessed on 23-02-2020).

would be an intrusion into their lives. Adding to the problems 145000 km of river line will be concreted for the Sagarmala project.¹⁴²

The NFF Vice Chairperson, Olenchio Simones stated: "The new CRZ notification has diluted the very founding principles and objectives of protecting the coastal communities, coastal and marine ecology and restricting development of ports, industries etc, which was done in CRZ 1991 and CRZ 2011."¹⁴³

The fact that the CRZ notification 2019, pays little or no attention to marginalized communities like fishermen is not so surprising. The whole process of formulation of rules lacked transparency. Any regulations affecting the general public will be made after thorough consultation and debate, but this was not the case with the notification of 2019. Whether there has been some consultation at all, then that is for sure with the tourism industry leaders. Whereas fishermen's or coastal population voices were never taken into consideration.

The lack of consideration of the fishing community has made the forum to take a strong decision to fight against the notification. They have no plans to remain silent on the rules which was made without consulting them. The new notification dilutes the coastal protection. This notification was issued on the basis of recommendations made in the Shailesh Nayak Committee Report. The report being a one sided version, is arbitrary and undemocratic. This report was made after discussions and deliberations with the State Government with big coastline. It lacked any consultation with the coastal communities that depend on coastal resources for earning their livelihood.¹⁴⁴

The dilution of the coastal rules compelled the NFF to protest against the new notification. The CRZ rules are originally intended to protect the coastal environment. The latest warning, however, appears to be more in favour of construction activities than securing the coastline. They firmly suspect that this would adversely impact the coastal population that has historically been engaged in fisheries.

¹⁴² Sabrangindia, February 27, 2019, "National fish workers forum launch month- long national campaign against CRZ 2019 regulations", <https://www.sabrangindia.in/article/national-fishworkers-forum-launch-month-long-national-campaign-against-crz-2019-regulations>, (Last accessed on 23-02-2020).

¹⁴³ TNN, "Fisherman's body threaten stir against new CRZ Rules", The Times of India (28th January 2019), <https://timesofindia.indiatimes.com/city/goa/fishermens-body-threaten-stir-against-new-crz-rules/articleshow/67716187.cms>, (Last accessed on 23-02-2020).

¹⁴⁴ Supra N. 128.

The National Forum of Fish Workers was totally disappointed by the notification given, as it does not take into account the needs and wishes of the fishermen. Therefore they wanted the notification to be withdrawn and demanded that it should be replaced with a law made by the parliament after proper public debates and discussion.

The 2019 Coastal Regulation Zone (CRZ) will be like a dark age for India as coastal communities such as fishermen, small-scale tappers, farmers, and tourism and so on will be displaced as the No Development Zone is relaxed. NFF has demanded that the new Coastal Regulation Zone (CRZ) notification 2019 issued by the Government of India be withdrawn with immediate effect as dilution of CRZ is in violation of Section 3 of the Environment Protection Act, 1986.¹⁴⁵

The 2019 notification is in fact a dilution of the 2011 notification which was intended to protect the coastal environment and at the same time take care of the livelihood of coastal inhabitants like fisher folk. The 2011 notification has well addressed the traditional rights of the fisher folk, who depend upon natural resources for their livelihood.

CLIMATE CHANGE

The 2019 notification generates uncertainty among environmentalists and people about the Government's intentions led by Prime Minister Narendra Modi particularly as the impacts of climate change on our coasts are being felt with growing intensity and frequency. It was only recently that India's coastal states experienced some of the worst natural disasters, such as the violent cyclone Ockhi, which went from a depression to an extreme cyclonic storm in just half a day, again the freak monsoon and flood in Kerala. Despite these the destructive cyclone Gaja and the delayed monsoon at Tamil Nadu, the problems never end. The new CRZ notification would prejudice the presence of the coastal ecosystem, including wetlands that play a major role in the effect of storms on coastal communities. The introduction of the coastal regulation notification will increase the vulnerability of coastal communities to climate disasters

¹⁴⁵ Herald Publications, "Withdraw Sagarmala projects, demands NFF", Herald Goa (29 May 2019), https://www.heraldgoa.in/m/details.php?n_id=146843, (Last accessed on 23-03-2020).

The Intergovernmental Panel on Climate Change has prepared a report on October 2018 and it provided a warning that global temperatures have already risen by 1.2 degree Celsius; mean rate of sea level has risen by 1.7 millimetres a year between 1901 and 2010, resulting in a rise of 0.19 meters. According to a study conducted by the UN International Strategy for Disaster Reduction, natural disasters along the Indian coast cost the country \$80 billion between 1998 and 2017¹⁴⁶.

If the only intention of the Government is generating revenue and creating more job opportunities through development, then the CRZ notification 2019 best serves its purpose, but that is not what is expected from a government. The new law would definitely lead to development and industrialization along the coast and it will surely generate revenue. In fact something which calls for more attention is that how will the coastal states find enough money to overcome the loss suffered by it in the course of these disasters. Most probably the amount of money the Government has to spend on overcoming these would be greater than the amount it expects to make through such developments. Forget about the money which Government has to spend, but the trouble it cause to the ordinary people really matters. The issue is Government actually focus on short term revenue rather than the long term safety of people. The coastal communities in India are constantly threatened by something or the other.

According to the modification in policy procedure which was introduced through a memorandum, the Government need not consult the Ministry of Law and Justice while framing a policy draft. The Government is required to consult the MoLJ only when it comes to final draft. Therefore the initial draft was made without a review process by the MoLJ.

Moreover the coastal states were requested to prepare and submit their CZMPs and the final notification was supposed to be issued only after considering all CZMPs. The Ministry of Environment Forest and Climate Change was in a hurry and the final CRZ notification 2019 was issued without considering the requirements of each coastal states. The provision in the 2019 notification dealing with CZMPs states that the

¹⁴⁶ Samveg2020, Coastal Regulation Zone Notification: What development are we clearing our coasts for? , <https://samvegias.com/coastal-regulation-zone-notification-what-development-are-we-clearing-our-coasts-for/>, (Last accessed on 23-02-2020).

provisions of the notification shall not apply till the CZMPs are updated in accordance with the provisions of the new notification.

Whether the CRZ notification 2019 actually intended to protect the environment? This is the question which comes to mind when one happens to go through the provisions it contains. The rules allow construction in ecologically sensitive areas instead of incorporating directions for providing protection and safeguard to the fragile coastal environment. In effect the latest notification has done away with the coastal setback that has saved some of our coastline from unsustainable development.

CURRENT SCENARIO

In coastal governance, the fishery groups and State Coastal Zone Management Authorities were left out of the review process. Such bodies are responsible in their respective states and territories for enforcing the CRZ Notice. They organize the preparation of coastal management plans, review project proposals, identify and assess CRZ violations and take protection steps for ecologically sensitive sites.

A scientist at the National Institute of Oceanography and part of the Goa State Coastal Zone Management Authority, Antonio Mascarenhas expressed his dissatisfaction with the CRZ review exercise. His was one of the 3,469 claims opposing the draft law. In support of his submission to the environment ministry, he provided a set of academic papers and stated “these seven scientific papers may please be considered so as to understand coasts need to be protected and not opened up for indiscriminate commercial use”.¹⁴⁷

In 2020 after the enactment of the CRZ Notification, the Kerala Government has to deal with over 26000 CRZ violations across 10 coastal districts. The Coastal District Committees (CDC) constituted by the government following the directions of the Supreme Court has identified 26,259 violations, stated the interim reports furnished by respective CDC’s. The Coastal District Committees were constituted by the

¹⁴⁷ Meenakshi Kapoor, India’s 2019 coastal regulation law ignored 90% of the objections made to the draft, <https://scroll.in/article/954402/indias-2019-coastal-regulation-law-ignored-90-of-the-objections-made-to-the-draft>, (Last accessed on 04-04-2020).

government in Thiruvananthapuram, Kollam, Alappuzha, Kottayam, Ernakulam, Thrissur, Malappuram, Kozhikode, Kannur and Kasaragod.¹⁴⁸

The Coastal District Committees submitted three interim reports between the month of October and December 2018. As per the third interim report, Kollam had the highest number of violations (4868), then Alappuzha (4536), Ernakulam (4239) and Kozhikode has over 3000 violations. Kottayam recorded the least at 147 violations.¹⁴⁹

The report also claimed that a pilot survey was carried out by the Town and Country Planning Department in the jurisdiction of Maradu Municipality and Cochin Corporation which identified 41 buildings in Maradu Municipality and 93 buildings in Cochin Corporation which will be further confirmed by department surveyors. Due to the absence of a Kerala Coastal Zone Management Authority (KCZMA) expert in committee, the Coastal District Committee Kottayam had limitations in identifying the violations. It is also recorded that other CDCs were unable to report in a short time on latitude and longitude.

CONCLUSION

Natural disasters along the Indian coast have cost the country 80 billion dollars between 1998 and 2017, according to a report by the UN International Strategy for Disaster Reduction. Although coastal erosion is a natural phenomenon caused by tides, tidal and coastal currents, and deflation, these factors are intensified by activities such as land reclamation, harbour dredging, navigation channels, and tidal inlets, jetty development, and other coastal structures.

It was found by National Centre for Coastal Research pollution levels rising in coastal waters. The levels of ammonia and phosphate to be high in all 24 monitored areas, which it attributes to dumping untreated waste into the ocean. The report states "Increasing nutrients in coastal water will result in ecological disruptions affecting the processes and services of the coastal ecosystem"¹⁵⁰.

¹⁴⁸ TNN, "Over 26000 CRZ violations identified in 10 coastal districts", Times of India, <https://timesofindia.indiatimes.com/city/thiruvananthapuram/over-26000-crz-violations-identified-in-10-coastal-districts/articleshow/73163065.cms>, (Last accessed on 04-04-2020).

¹⁴⁹ Id.

¹⁵⁰ The National Centre for Coastal Research under the Ministry of Earth Sciences, Seawater Quality Monitoring (1990-2015).

Since 1991, CRZ notifications have stressed the projected phase out of untreated water sewage and waste disposal. Yet this provision is rarely enforced with all states having their Coastal Zone Management Plans in place except Goa and Kerala. The CRZ notification 2019 opens the pathway to destruction of coastal environment by allowing the tourism sector to utilise the beach areas and which leads to increase in coastal wastes.

The CRZ notification 2019 is a failure as the livelihood in the coastal area is under threat due to the fact that the notification opens door to development in ecological sensitive areas. Thus the CRZ Notification is a bane rather than a boon.

CHAPTER - 5: THE ROLE OF THE JUDICIARY IN MATTERS RELATED TO CRZ VIOLATIONS

INTRODUCTION

The law on coastal regulation (CRZ) had to face a range of difficulties, including those relating to the ecosystem and changes from the initial time of its passage and was continued throughout its advancement. The CRZ laws were drawn up with the purpose of protecting and maintaining the delicate habitats and ecosystems that cover all water bodies such as rivers, creeks, lagoons, estuaries, coral reefs, mangroves, swamps and backwaters.

Furthermore, the inability of states to protect natural resources has put the judiciary at a prominent position and thus exercises maximum control in interpreting the regulations of the coastal region. It inevitably affects the very nature of the law, as it limits the complexity and efficacy of normal administrative entities charged with the obligation to enforce the requirements of law and conservation. Any failure in the implementation of the law will be at the cost of the environment.¹⁵¹

Failure to comply with coastal protection law would expose the areas adjacent to the water bodies to disasters that will result in tremendous economic damage and loss of life. The notification and the subsequent amendments made to it were challenged several times before the court within a very short span of time following the issuance of the notice. An assessment of the coastal environmental judgements will shed some light on the significance of the coastal environment and the problems associated with implementing CRZ regulations.

The coastal states and the Union territories are to prepare a coastal zone management plan (CZMPs) for the implementation of coastal regulation laws, according to the CRZ notification. However, the coastal states and union territories kept on delaying the preparation of this plan. In *Indian Council for Enviro-Legal Action v. Union of India*¹⁵²,

¹⁵¹ Amita Singh, Coastal Ballads and conservation Ironic – Understanding implementation slippages of CRZ law, ResearchGate, https://www.researchgate.net/publication/298714274_Coastal_ballads_and_conservation_ironic_Understanding_implementation_slippages_of_the_CRZ_law, (Last accessed on 27-04-2020).

¹⁵²Indian Council for Enviro-Legal Action v. Union of India, 1996 (5) SCC 281.

The Indian Council for Enviro Legal Action raised a grievance against the central government for not enforcing the implementation of coastal zone regulations by state governments leading to the continued degradation of ecology in the coastal areas.¹⁵³

The Supreme Court took the initiative in this to remind the states of their responsibility to plan Coastal Zone Management Plans. The court also noted that the states act of trespassing into the coastal environments and justifying it on account of development and foreign exchange earnings is troubling. The Supreme Court also precluded the central government's unjustifiable attempts to loosen CRZ requirements in favour of beach resorts. The court gave directions to the states to set up coastal zone management authorities, which would formulate the coastal zone management plan for implementing the CRZ rules.¹⁵⁴

The court's directions make it clear that the coastal areas are important and unique. The land area within the CRZ areas is treated differently from the rest of the district land area and is governed by a separate set of regulations. The court's directions make it clear that the coastal areas are important and unique. The land area within the CRZ areas is treated differently from the rest of the district land area and is governed by a separate set of regulations. To ensure compliance, states were controlled, and notice was given to the chief secretaries of those states that failed to comply with this to provide reasons why they failed to comply with the rules. This decision has contributed greatly to the inclusion of provisions in the 2011 regulation, which provides for a comprehensive mechanism for the preparation of CZMPs in accordance with the experience gained in its work.

AQUACULTURE

In *S.Jaganath v. Union of India & Ors*¹⁵⁵, for the first time, the non-implementation of CRZ notification came before the court. Though the notice was issued in 1991, it never came into effect. In this case, the petitioner filed a writ petition to stop intensive and semi-intensive prawn cultivation in ecologically sensitive coastal areas and to ban the use of wasteland and wetlands for prawn cultivation. The petitioner also sought the

¹⁵³ Id.

¹⁵⁴ Id.

¹⁵⁵ *S.Jaganath v. Union of India & Ors*, (1997) 2 SCC. 87.

creation of a National Coastal Management Authority to protect the marine life and coastal areas.

The petitioner claimed that the coastal states authorized big business houses to maintain large-scale prawn farms in the coastal states in violation of the Environmental Protection Act of 1986 and several other law provisions. The large-scale aqua farming has resulted in mangrove habitat destruction, potable water contamination and a decrease in fish capture. In addition, all the coastal lands previously used to grow food crops and conventional fishing have now become shrimp farms. The construction of coastal shrimp farms would deny local fishermen direct access to the beach.¹⁵⁶

The issue raised in this case was whether intensive and semi-intensive prawn farming could be permitted in ecologically sensitive coastal areas? The court ordered the National Environmental Engineering Research Institute (NEERI) to visit the coastal states of Andhra Pradesh and Tamil Nadu and prepare a report on the status of farms set up in those areas. The reports showed that the climate had been seriously affected by shrimp farming. The court noted that the coasts of the sea and the beaches are the gift of nature to mankind.¹⁵⁷

The court ordered not to turn any portion of the agricultural land and the salt farms into aquaculture farms. It ordered for the constitution of an authority under the central government as per sec 8 (3) of the Environment Protection Act, 1986. The construction of shrimp growing ponds in coastal areas was forbidden. Those aquaculture industries which already exist within 1 km of the Chilika Lake radius must reimburse the individuals affected. Moreover, it required that any aquaculture farm working outside the CRZ areas must obtain prior authorization and approval from the authority within the time limit specified.¹⁵⁸

This case has shed some light on the environmental and social consequences of Indian large scale shrimp farming. The areas historically used for rotational rice and shrimp farming have now been entirely dedicated to intensive shrimp cultivation methods which yield higher productivity. Expecting a high return on investment has attracted

¹⁵⁶ Id.

¹⁵⁷ Id.

¹⁵⁸ Id.

investors and has thus replaced the conventional style with intensive and comprehensive methods.¹⁵⁹

In this case, the court has objectively looked at national and international research on the environmental and social consequences of commercial shrimp farming. It also took into account the consequences of shrimp farming in coastal areas such as loss of agricultural land and mangroves, obstruction of natural drains, salinization, and destruction of natural seed resources, drug use and chemicals. The court noted that the modern way of farming without much control over feed, seeds and management practices had caused serious environmental threats.¹⁶⁰

AMENDMENTS: BOON OR BANE

The tourism sector is a generator of job opportunities and one of the major contributor of revenue, receives great support from the government. The construction of hotels and resorts in beaches for facilitating tourism has always been a controversial issue. The legal regime of coastal management in India came into force for the first time in the year 1991 and in the subsequent years it has gone through a series of amendments. One such significant amendment was made in the year 1994, by the central government in order to encourage the tourism sector. These amendments made relaxation in the No Development Zone (NDZ) and one such amendment that reduced the earlier 100 meters to 50 meters conferred discretionary powers upon the central government to permit construction within NDZ. The hotel industry being the beneficiary of these amendments says that relaxation would not threaten the country's ecology.¹⁶¹

The Central Government justifies that this discretionary power to permit construction in NDZ is due to the wide variations in geographical features, as it is impossible to have uniformity in human settlements and developmental activities which calls for foreshore facilities. The Supreme Court rejected the pleas and held the amendment invalid in the *Indian Council for Enviro Legal Action v. Union of India*.¹⁶² A detailed study of the judgment in *Indian Council for Enviro-Legal Action* makes it clear that the Supreme

¹⁵⁹ S.Jaganath v. Union of India & Ors, (1997) 2 SCC. 87.

¹⁶⁰ Id.

¹⁶¹ P Leelakrishnan, Environmental Law in India, Lexis Nexis, Haryana (5th edn, 2019).

¹⁶² Supra N. 152.

Court had examined validity of six amendments made by Notification dated August 16, 1994 in the Notification dated February 19, 1991. Two out of the six amendments were found by the Court to be arbitrary and illegal and, therefore, they were struck down. When one part of the Notification was found to be legal and another part of the said Notification to be bad in law, it would not be proper to construe the judgment affecting past transactions.¹⁶³

The discretion of the government to permit construction within NDZ with such conditions and restrictions as it may deem fit is arbitrary and un-canalized power. Exercise of such powers could result in ecological degradation, make NDZ ineffective and lead to the violation of right to life of the people living in the areas. Reduction in the NDZ limit from 100 meters to 50 meters in the case of rivers, creeks and backwaters was based on no reason and without ascertaining whether or not the reduction would result in serious ecological imbalance. The amendment introducing facilities for games might be for more enjoyment of the beach was acceptable. But no permanent structures could be permitted for the purpose.¹⁶⁴

Any portion of the property extending to NDZ could not be counted for the floor space index (FSI) for construction, this was the rule established before the amendment. The 1994 amendment permitted consideration of the vacant space for FSI calculation. The court held that if haphazard and congested construction were to be checked, this amendment required modification to the effect that a private owner of land in NDZ shall be entitled to take into account half of such land for the purpose of permissible FSI in respect of construction undertaken by him outside the NDZ.¹⁶⁵

Another amendment was for constructing basement structures. According to the court, this should not interfere with coastal aquifers as the structures were possible only on the permission given by the ground water board after ascertaining that there would not have adverse impact. The amendment that allowed barbed and green fencing within 200 meters of NDZ was held as valid, as the court found it necessary that private owners had to protect their property from encroachment. However no fencing that would hinder public access to the beach could be allowed. According to the court, the right of way

¹⁶³ Supra N. 161.

¹⁶⁴ Id.

¹⁶⁵ Id.

enjoyed by the general public to those areas which they are free to enjoy, should in no way be closed, hampered or curtailed.¹⁶⁶

MAINTAINING STATUS QUO IN THE CASE OF ONGOING CONSTRUCTIONS

In *Goan Real Estate & Construction Ltd. & Another v. Union of India*¹⁶⁷ case the project of the appellant is treated to be an ongoing project. The issue raised in this case is whether the constructions made or on-going pursuant to the plans sanctioned on the basis of Notification dated August 16, 1994 would be affected or not? For this purpose it is essential to make a critical analysis of the judgement delivered in *Indian Council for Enviro-Legal Action* case.

The decision dated October 30, 2007 rendered by the National Coastal Zone Management Authority is in favour of the appellants, which is challenged by the respondents in PIL. The grant of stay of construction activity would result into considerable loss to the appellants who have invested huge amount in the project. On the facts and in the circumstances of the case the court is of the opinion that interest of justice would be served if the appellants are permitted to complete incomplete construction at their own risk and cost.¹⁶⁸

The direction given by the court in *Indian Council for Enviro-Legal Action* was in no doubt instrumental in the preparation of the CRZ Notification 2011, which provided for a detailed and accurate process for preparing the coastal zone management plans. When the court rendered this decision there existed uncertainty and confusions regarding the initiatives of states to prepare CZMPs. Therefore court made a caution in the case that, till the approval of the management plans all developmental activities within CRZ shall not violate the provisions of the notifications.¹⁶⁹

Whereas in the *Goan Real Estate* case, the petitioners have already commenced construction of 18 blocks in the CRZ area i.e. the area between 50 meters and 100 meters in CRZ with the required approval before 18.04.1996 when the apex court held

¹⁶⁶ Id.

¹⁶⁷ *Goan Real Estate & Construction Ltd. & Another v. Union of India* (2010) 5 S.C.C. 281.

¹⁶⁸ Id.

¹⁶⁹ Id.

the amendments invalid in *Indian Council for Enviro Legal Action v. Union of India*.¹⁷⁰ The constructions in this case were almost complete and ready for occupation. It is at this point the Goa State Coastal Authority declared that the construction were going on in violation of CRZ guidelines in as much as they were between 50 meters and 100 meters. The collector issued order to put halt to the work on 22-10-2006. This order was not lifted and allowed to operate in spite of the clarification made by the ministry that any construction which has commenced between 16-08-1994 and 18-04-1996 after obtaining all the required clearances should be construed as an on-going project.¹⁷¹

The decision rendered in the Enviro- Legal Action case could be said to be have created a major impact in the matter of Goan Real Estate case. In Enviro Legal Action case the court never addressed the issues relating to progressing or on-going constructions. The intention of the court is too gathered through interpretation. It intended to keep the ongoing construction valid, had it been otherwise then the court would have specified it through specific orders. Therefore the limits of NDZ as 50 meters were valid in the period between 16.8.1994 that is when the relaxation was made through amendment and 18.4.1996, when the judgement was delivered. So naturally any property constructed or under construction during that period is valid.

The general attitude expressed by Court makes it clear that it intended to give prospective effect to the judgment dated April 18, 1996 rendered in the case of Indian Council for Enviro-Legal Action. On an analysis of the judgement we can see that the judge will operate prospectively and also any developmental activity which has been initiated between August 16, 1994 and April 18, 1996 after obtaining all requisite clearances from the concerned agencies including the Town and Country Planning should be construed as on-going projects and are not hit by the judgment of this Court dated April 18, 1996. This judgement also adds that until the coastal management plans get approval, all the developmental activities within the CRZ area are valid. The result is that even though the amendments which introduced relaxation in the CRZ area by reducing the NDZ to 50 meters which was 100 meters in original notification is without proper justification, anything done in accordance with the amending notification or any orders passed under the said notification remained unaffected in any manner whatsoever as till the approval of the management plans all development activities

¹⁷⁰ Supra N. 152.

¹⁷¹ Supra N. 167.

within CRZ should not be taken as violating the provisions of the notification. This decision is applicable to all cases in the coastal areas of the country where construction had taken place or in progress. All such construction is valid.¹⁷²

The Supreme Court has taken a different view in the case of *UT of Lakshwadweep v. Seashells Beach Resort*¹⁷³, by setting aside the interim order passed by the High Court, which granted permission to run the immediately after the Island Protection Zone (IPZ) Notification came into existence. The Supreme Court observed that the High Court has passed the order in ignorance of the IPZ notification and also future development and management. The resort which is in question is located within NDZ and also it is against the conditions for land use diversion. The construction of the building to be used as a resort itself violates the CRZ requirements. It is not permitted to use buildings of dwelling purposes for tourist activities.¹⁷⁴

The resort could not be commissioned under judicial order in disregard of serious objections that were raised by the administration, which objections had to be answered before any direction could issue from the High Court. The court after taking into consideration the existing circumstance thought it would be appropriate to appoint an expert committee for the preparation of the Integrated Island Management Plan and also matters relating to development of tourism in the area and the need of home stays.¹⁷⁵

DEMOLITION OF CONSTRUCTIONS BUILT IN PROHIBITED ZONES

The Supreme Court and various High Courts have come across several cases dealing with the construction activities in coastal areas. In most of these cases constructions have taken place under the building permit granted by the appropriate authority. Then the question arises whether the building permit issued by the relevant authority be quashed and the construction which has already taken place be demolished through court orders?

¹⁷² Id.

¹⁷³ *UT of Lakshwadweep v. Seashells Beach Resort*, (2012) 6 S.C.C. 136.

¹⁷⁴ Id.

¹⁷⁵ Id.

In *Vaamika Island (Green Lagoon Resort) v. Union of India*¹⁷⁶ The petitioner filed a writ petition before the High Court of Kerala for a declaration that around 5.2 acres were wrongly included in the coastal zone management plan prepared by the Kerala Coastal Zone Management Authority (KCZMA) and therefore it is ultra vires the Coastal Regulation Zone notification (1991) and Coastal Regulation Zone notification (2011). Petitioners also argued that the classification and categorization of its property situated in Vettala Thuruth Island as filtration pond is unconstitutional. Other writ petitions were also filed and the high court in this case directed to proceed with action accordance with the land conservancy law and to raise the questions before the authorities. The division bench of the high court heard the petition together, and it pronounced the impugned judgement, and then special leave petition was filed against this judgement in the Supreme Court.¹⁷⁷

The issues involved in the case were whether the prohibition on developmental activities in the area ultra vires the CRZ notification? Whether the buildings already constructed in accordance with building permit be demolished as directed by the High Court?

The Supreme Court upheld the decision taken by the High Court against the resort, and it supported the decision of demolition of buildings already constructed. It was of the view that the High Court has taken the right decision by taking into account public interest. The court reached this decision on the basis of CRZ Notification 2011 which identified Vembanad backwater as a CVCA. The lake has immense conservation importance as it supports a large aquatic biodiversity and the most important migrating bird's habitat. Vembanad Lake conserves as a habitat to a variety of fin and shell fish and a nursery of several species of aquatic life. Taking into consideration the fragile ecosystem of the wetland, deterioration of water quality and associated damage to aquatic organisms and the shrinkage of Vembanad Lake, several measures have been taken for preservation.¹⁷⁸

In this case court highlighted the importance of Vembanad Lake, It has got national and international recognition and one of the productive ecosystem. Vembanad Lake is being

¹⁷⁶ *Vaamika Island (Green Lagoon Resort) v. Union of India* (2013) 8 S.C.C. 760.

¹⁷⁷ *Id.*

¹⁷⁸ The Vembanad was included in the National Lake Conservation programme by the National River Conservation Authority under the MoEF. The State of Kerala has also decided to establish Vembanad Eco-Development Authority.

recognized as a critically vulnerable, which supports exceptionally large biological diversity and constitutes the second largest wetlands in India. There are several islands in and around Vembanad backwaters of which Vettila Thuruth.¹⁷⁹ Taking into consideration the significance of this lake it is necessary to have a proper legal framework for preservation of resources and regulation of developmental activities.

The court makes an examination as to how the KCZMP has been prepared and how the disputed property is described in CZMP. The KCZMP has been prepared in accordance with the guidelines of MoEF, taking into consideration maps prepared through survey of India and cadastral maps prepared by the Survey Department of Kerala government were used for the preparation of CZMP of the State.¹⁸⁰

The coastal plan prepared in accordance with the CRZ 2011, describes Vettila Thuruth as Filtration Pond (FP)¹⁸¹. According to the CRZ notification 1991 the island is categorized as CRZ-I and according to the CRZ notification 2011 it is categorized as either CRZ-I, CRZ-III or CRZ – IV. No new constructions could be made in CRZ –I and CRZ III and CRZ IV has No Development Zone (NDZ) where only repairs can be made on existing structures. Tourism activity has been prohibited in both CRZ-I and CRZ III. The CRZ notification 2011 contains special provisions to deal with critically vulnerable areas including Kerala. This does not permit construction within 50 meters from HTL and allows only repairs or reconstruction of already existing dwelling units of coastal communities.¹⁸²

The Supreme Court by upholding the decision of the High Court observed that islands could be coastal stretches of river or backwater or backwater islands in Kerala. The area is covered under CRZ-I and any construction that has taken place in violation of the provisions of CRZ notification 1991 and 2011 should be demolished as directed by the High Court.¹⁸³

Though the owners of the property commenced construction after obtaining the building permit, we can see that such sanctions have been provided without considering the existing laws and regulations. Therefore the Supreme Court felt it reasonable to

¹⁷⁹ Supra N. 176.

¹⁸⁰ Id.

¹⁸¹ Filtration ponds is a fish spawning or breeding ground where the shallow water bodies adjoining the backwater system where certain species of fish are grown in large numbers.

¹⁸² P Leelakrishnan, Environmental Law in India, Lexis Nexis, Haryana (5th edn, 2019).

¹⁸³ Id.

concur with the decision of the High Court. The special leave petitions were dismissed by the court.

Another landmark decision regarding the construction of buildings within the CRZ area is, *The Secretary Kerala State Coastal Management v. DLF Universal Limited*¹⁸⁴. The issue raised in this case is relating to grant or non-grant of environmental clearances for constructions within eco sensitive areas of the country. The struggle between environment protection and need for development is a complicated issue and it is hard to find solution for such problem. The struggle between environment protection and development is a never ending one. So there arises a need to maintain a balance between these two. In the year 2006 respondent no.1 has purchased around 5.12 acres of land from different vendors for the purpose of constructing a housing complex of almost 185 units located on the eastern bank of Chilavannur Kayal in Kerala. As per the report of the Coastal Regulation Zone the property falls in the Kochi Corporation and the said area, along with the adjoining panchayats is highly developed.¹⁸⁵

The builders usually claim that they have commenced construction after obtaining all the required permission from the concerned authorities at the same time the argument raised by the authorities such as Coastal Management Authority and Environment Authority differs. All these years the appellant (Kerala State Coastal Zone Management Authority) in this case has been in a dormant state for about four years , but all on a sudden when they decided to bring about a change, they started bring into all the constructions that have taken place in violation of CRZ rules. But in the course lot of construction have already taken place and most of them have reach final stage of construction. It was also alleged that a lot of low lying areas including tidal marshes and filtration ponds bordering the backwaters have been reclaimed for construction and other development activities.¹⁸⁶

The builder has obtained a building permit for the construction of housing complex, which was issued by the Corporation of Cochin on 22.10.2007 under the Kerala Building Rules, 1984. There was no failure on the part of the builders to obtain that other linked permission ns such as NOC from State Pollution Control Board, NOC from the Fire & Rescue Department and height clearance from the Navy was also obtained.

¹⁸⁴ Kerala State Coastal Management Authority v. DLF Universal Ltd (2018) 2 S.C.C 203.

¹⁸⁵ Id.

¹⁸⁶ Id.

The builders DLF Universal Limited¹⁸⁷ applied for environment clearance to the Ministry of Environment and Forests on 27.11.2007 based on a notification dated 14.9.2006 issued by the Ministry of Environment and Forests in furtherance of the environment protection in exercise of power conferred by sub-section (1) and clause (v) of subsection (2) of Section 3 of the Environment Protection Act, 1986 read with clause (d) of sub-rule (3) of Rule 5 of the Environment Protection Rules, 1986. This Notification was in supersession of the earlier Notification of 27.1.1994.¹⁸⁸

According to the notification all new projects were supposed to obtain prior environment clearance from the Central government or the State Environment Impact Assessment Authority¹⁸⁹ which is constituted by the Central Government. During the initial stage the construction in dispute was examined and it was recommended that since parts of the project fell under the CRZ category a detailed examination was required by the Committee of the Environment Ministry. As per the rules the project proponent made application to the concerned authorities and from the response received it was found that the property was located in CRZ-II areas¹⁹⁰ and no part of the project in question falls under CRZ-I¹⁹¹ category. Thereafter the project proponent commenced construction activities in the area, the KCZMA interrupted the construction by asking to state to give explanation as to why it started construction without prior permission from it. Later on this project was recommended to the Ministry of Environment and Forest.¹⁹²

This matter came before the court when a petition was filed before the High Court of Kerala by a resident of the area where the property in question is located. It is notable that the petition was filed by the petitioner only after three years of the commencement of the construction. While the petition was pending before the High Court the SEIAA granted an integrated CRZ environment clearance to the project. However the High Court set aside this clearance and ordered demolition of the building. This decision was challenged before the division bench of High Court. The court held that construction is

¹⁸⁷ Formerly known as Adelle Builders & Developers Private Limited, hereinafter referred to as DLF).

¹⁸⁸ Supra N. 184.

¹⁸⁹ Hereinafter referred to as "SEIAA".

¹⁹⁰ Those areas which are developed up to the shoreline and fall within the municipal limits wherein construction and other developmental activity is possible.

¹⁹¹ Ecologically sensitive areas, essential in maintaining ecosystem of the coast. These lies between the low tide line and high tide line wherein only activities pertaining to exploration of natural gas extraction of salt is permitted.

¹⁹² Supra N. 184.

illegal but it set aside the direction for demolition and imposed heavy fine on the project proponent. Appeals were filed against this decision in the Supreme Court. The court set aside the findings of the impugned order while sustaining the fine of Rs.1 crore with the direction for strict adherence to the norms in future and avoidance of such contradictions by the authorities.¹⁹³

The main issue in this case is regarding the accountability in respect of inconsistencies played by the regulators while dealing with environmental matters. The need of the hour is preparation of a proper guideline which both the regulatory authority and the project proponent can follow and would avoid confusion. A detailed and well defined guidelines will ensure that the project proponents are informed about all the rules and regulations to be complied with before proceeding with any projects and this will help avoid problems similar to the one in DLF case.¹⁹⁴

The major disappointment in the case was role played by the concerned authorities, it is clear from the facts of the case that the authorities were so unresponsive. In fact they had no clear idea about their own responsibilities. It was the duty of the authorities concerned to provide the project proponents a clear and unambiguous report so that they are not in confusion about the legal status of the project. In this case each authority has taken different stands this obviously created uncertainty and confusion.¹⁹⁵

Therefore it is the responsibility of all the regulatory authorities dealing with the environment to make sure that all issues relating to clearance and approval are addressed not only in a time bound manner but also with clarity at each step, especially when it comes to either rejecting or granting permission for projects.¹⁹⁶

*Piedade Filomena Gonsalves v. State Of Goa And Ors*¹⁹⁷ is a case regarding construction of a building without securing permission from the concerned authorities. A special leave petition was filed in the Supreme Court against the order of the high court for demolishing the structure constructed. The appellant is in possession of a piece of property located within the jurisdiction of village panchayat of Colva, Salcete and

¹⁹³ Id.

¹⁹⁴ Manu Nair, "India: Environment –getting it right", Mondaq, <https://www.mondaq.com/india/environmental-law/758118/environment-getting-it-right>, (Last accessed on 01-05-2020).

¹⁹⁵ Id.

¹⁹⁶ Id.

¹⁹⁷ *Piedade Filomena Gonsalves v. State Of Goa and Ors* (2004)3 SCC 445.

Goa. In the said property there was a structure of thatched roof supported by laterite stone pillars, and this was used by sun bathers and visitors. Subsequently the appellant replaced the old structure with new one which was a pucca building.¹⁹⁸

The new building is made up of laterite stones and cement with a concrete roof. Two writ petitions were filed in the High Court of Bombay at Goa. A petition was filed by the appellant's neighbor seeking demolition of the construction made by the appellant.¹⁹⁹ Another petition was filed by the appellant seeking protection of the construction raised by her.²⁰⁰ The appellant's neighbor alleged the appellant's construction is unauthorized and also in violation of High Tide Line in Coastal Region Zone in which no construction is permissible. Whereas the appellant claimed that the construction put up by her was beyond 200 meters from High with Tide Line, and therefore, permissible and even though she has failed to obtain prior sanction it could be regularized. The High Court dismissed the appellant's petition. The High Court directed the construction put up by the appellant to be demolished.²⁰¹

Being aggrieved by the common judgment of the High Court disposing of the two writ petitions, the appellant filed appeals by special leave.

The court relied on the judgement delivered in *The Goa Foundation's* case, wherein the High Court has issued directions in the matter of determining the High Tide Line on the basis of Hydrographic charts prepared by the Naval Hydrographic Office. The learned senior counsel for the appellant submitted the construction raised by the appellant should not be demolished. The Supreme Court found that the construction has taken place without requisite permission.²⁰²

During the pendency of the writ petition, the appellant had moved two applications, one of which is dated 11.7.1995, for the purpose of regularization of the construction in question. Goa State Coastal Committee for Environment-the then competent body constituted a sub-committee which inspected the site and found that the entire construction raised by the appellant fell within 200 meters of the HTL and the construction had been carried out on existing sand dunes. The Goa State Coastal

¹⁹⁸ Id.

¹⁹⁹ Through CWP No. 76 of 1995.

²⁰⁰ Through CWP No. 237 of 1999.

²⁰¹ Supra N. 197.

²⁰² Id.

Committee for Environment, in its meeting dated 20.10.1995, took a decision inter alia holding that the entire construction put up by the appellant was in violation of the Coastal Regulation Zone Notification. The Supreme Court dismissed the petition filed by the appellant.²⁰³

In *Anil Hoble v. Kashinath Jairam Shetye*,²⁰⁴ it was held that any illegal structure falling within the No Development Zone (200 mtrs. from the HTL) in a CRZ III area was directed to be demolished and even the permission granted by the Coastal Zone Management Authority was of no avail. Similarly, the practice of regularizing unauthorized constructions effected by erring buildings in violation of law has not found approval from the Supreme Court and humanitarian and equitable grounds found no place in the same.²⁰⁵

*The Kerala State Coastal Zone Management v. State of Kerala*²⁰⁶ In this case construction started in the year 2006 based on a building permit issued by the Maradu Grama Panchayat, which was later upgraded as Municipality. Based on an instruction from the State Government, the Panchayat issued a show-cause notice for revoking the building permit, citing CRZ violations. This was challenged in the High Court of Kerala. The High Court stayed the notices, and construction was carried out on the strength of Court's interim order. Later, the writ petitions by builders were allowed by the Court on the ground that Government had no power in law to issue instructions to a local self-government authority. This was challenged by the KCZMA in the Supreme Court, in which orders were passed on May 8.²⁰⁷

The bench of Justices Arun Mishra and Navin Sinha had passed the order based on the report of a three-member committee appointed by the Court which stated that when the constructions were made, the area was designated as CRZ-III, where such constructions are prohibited. The Court had also noted that Panchayat had granted the building permits without the concurrence of the Coastal Zone Management Authority, which was mandatory. According to the bench, the relevant issue was whether the

²⁰³ Id.

²⁰⁴ *Anil Hoble v. Kashinath Jairam Shetye*, (2016) 10 SCC 701.

²⁰⁵ *Supra* N. 194.

²⁰⁶ *Supra* N. 181.

²⁰⁷ Id.

constructions were legal when they were made, and not whether they are permissible now.²⁰⁸

The bench also took judicial notice of the floods faced by the state last year and observed that it had taken place "due to such unbridled construction activities resulting into colossal loss of human life and property". The court ordered demolition of buildings constructed in violation of CRZ notification. The authorities were directed to implement the order within a month.²⁰⁹

Builders of two apartments have filed review petitions against the judgment stating that the Court was misled by the Kerala Coastal Zone Management Authority (KCZMA) into concluding that the constructions were made in violation of Coastal Regulation Zone notifications. According to the builders, the Kerala Coastal Zone Management Authority was aware that the constructions are legal now, as the area is categorized as CRZ-II (where such constructions are permissible) in the Coastal Zone Management Plan prepared as per the 2011 CRZ notification. Though this plan was approved by the Union Ministry of Environment Forests and Climate Change in February 2019, this was not brought to the notice of the Court by KCZMA "for reasons best known to it", the petition states.²¹⁰

The review petitions allege that the three-member committee consisting of the Secretary to the Local Self Government Department, the Chief Municipal Officer of the concerned Municipality and the Collector of the District had not heard all affected parties before submitting the report.²¹¹

The review petitions state that the demolition order was passed by the Court on an erroneous understanding that Maradu area was included in CRZ-III area. The bench did not notice that the area was categorized as CRZ-II as per the Coastal Zone Management Plan prepared for the area as per CRZ 2011 notification, which was approved by the Union Ministry of Environment and Forests on February 28.²¹²

²⁰⁸ Id.

²⁰⁹ Id.

²¹⁰ CRZ violation: SC stays demolition of Kochi flats for six weeks, Live Law, <https://www.livelaw.in/top-stories/sc-crz-violation-building-demolition-145545>. (Last accessed on 04-05-2020).

²¹¹ Id.

²¹² Id.

The demolition of such huge projects is not a great idea even though they have been constructed in violation of the CRZ regulations. Firstly demolition will call for a lot of amount which the authorities who have been directed to do so will not have. Secondly removal of these buildings will obviously create more trouble, it will add to the environmental pollution. Moreover such harsh orders will adversely affect the buyers of these apartments who have purchased them in good faith. This is a matter of great concern as so many families will be left without house and most of them have invested all of their earnings for purchase. However action should be taken against the authorities who have allowed such constructions against the rules. The buyer need not suffer for the negligent act of the authorities. The buyer can only rely on the documents provided by the builder and also other information which he gathers from the banks and lawyers. Even the banks have granted loans for the purchase of these flats, usually any bank would take advice from expert legal advisers before giving loans. All this will naturally create a belief in a common man that there is nothing against the law which stops him from purchasing the flat.

In this case the panchayat have issued the construction permits, the building completion certificate, building number, water connection and electricity in the buyer's name. The buyer could have never imagined that there was such a fault with regard to the construction just because the panchayat have issued the building permit without the concurrence of the Coastal Zone Management authority which was mandatory. Moreover as per the current CRZ guidelines permit for constructing the same buildings are permissible.

Constructions in violation of CRZ rules takes place due to the nexus between the politicians, authorities and law enforcing agencies and very often the ordinary people becomes victims of such nexus. In fact only the beneficiaries of such nexus must be held personally liable for their actions.

The direction in which this case proceeds, gives a clear picture that the builders and the corporate officials are using dubious methods to deceive the court by bring up excuses. However the apartments were demolished in a controlled explosion as per Supreme Court order on 11th and 12th January 2020²¹³. The Supreme Court also ordered ₹25

²¹³ G, Seetharaman, Demolition of Maradu Flats in Kochi Turns Spotlight for Controlled Explosion, Economic Times, <https://economictimes.indiatimes.com/industry/indl->

Lakhs as compensation to the apartment owners²¹⁴. As the authorities are hand in glove with the builders they will make all efforts to reverse the decision of the court as in DLFs case. In the *DLF case* the construction has taken place in gross violation of rules still the court relaxed the punishment by making them pay a fine of one crore and reversed its judgement to demolish the building this is due to the vested interest.

TRANSFER OF HAZARDOUS SUBSTANCE

Whether environmental clearance needed for laying pipeline crossing the land portion of a river that does not come under CRZ area? In the case of *M. Nizamudheen v. Chemplast Sanmar Limited and Others*²¹⁵ the company obtained clearance from The Ministry of Environment and Forest (MoEF) for manufacturing Poly-Vinyl Chloride (PVC) and to install a Marine Terminal Facility (MTF) adjacent the seashore in order to receive and transfer Vinyl Chloride Monomer (VCM) from the ships to the PVC plant through underground pipeline passing through river areas under the provisions of Coastal Regulation Zone Notification. Thereafter Chemplast made an application to the executive engineer of Public Works Department (PWD) for obtaining permission for carrying seawater and raw materials to company through pipelines laid 3.5 meters below the river bed. Initially permission was granted by the executive engineer but on the realization that VCM is a dangerous substance and would affect the environment and health of people, permission was subsequently revoked.²¹⁶

A petition was filed before the Madras High Court and the court set aside the order made by the executive engineer which cancelled the permission granted. Thereafter the appellant filed a public interest litigation before the High Court seeking for a direction to quash the order granting permission by the executive engineer and also Chemplast to refrain from laying of pipelines for transporting raw materials from jetty to their plant. The court dismissed this petition.²¹⁷

[goods/svs/construction/demolition-of-maradu-flats-in-kochi-turns-spotlight-on-controlled-explosion/articleshow/73362709.cms?from=mdr](https://timesofindia.indiatimes.com/goods/svs/construction/demolition-of-maradu-flats-in-kochi-turns-spotlight-on-controlled-explosion/articleshow/73362709.cms?from=mdr), (Last accessed on 29-05-2020).

²¹⁴ Mahir Haneef, Maradu Flats Demolition: SC orders Rs.25 Lakh compensation for flat owners <https://timesofindia.indiatimes.com/city/kochi/maradu-flats-demolition-sc-orders-compensation-of-rs-25-lakh-to-each-flat-owner/articleshow/71325511.cms>, (Last accessed on 29-05-2020).

²¹⁵ M. Nizamudheen v. Chemplast Sanmar Limited and Other (2010) 4 S.C.C 240.

²¹⁶ Id.

²¹⁷ Id.

The first and the foremost question which the court looked into is whether Uppanar river and its banks where these pipelines are to be laid fall under the CRZ area and environmental clearance is required or not? The second question was whether the CRZ notification 1991 provided restrictions for the transfer of VCM beyond port area to the PVC plant through pipelines? The court had to adopt a wide interpretation to the provisions in the CRZ notification regarding the manufacture or handling or storage or disposal of hazardous substance except transfer of hazardous substance from ships to ports, terminals and refineries and vice versa in the port areas.²¹⁸

According to the court, limiting the transfer of hazardous substance to ports, terminals and refineries in the port area only for CRZ protection is an absurd interpretation. If materials cannot be transferred from ports there is no point in getting the raw material and having it in the port. A purposive interpretation demands that the expression “in the port area” shall be read as “in or through the port areas”. Such an interpretation will be in harmony with other provisions of the notification.²¹⁹

On analysis it was found that the permission granted to the Chemplast by the MoEF was in exercise of the powers conferred under regulation 3 of 1991 notification. Therefore the permission granted by the executive engineer is legal. Environment clearance is not required for laying pipelines for the project in question because the Uppanar River and its bank where the pipelines laid by the company do not fall under the CRZ III area as per 1996 plan prepared for the purpose of demarcation and classification of CRZ areas in the state of Tamil Nadu.²²⁰

CONCLUSION

The role played in the implementation of the CRZ Notification and adjudicating decisions based on violations of the CRZ rules by the judiciary is not small but has a large impact on the development of the CRZ regime. The Courts should consider the amicable solutions while deciding for demolition of the building in case people are living in the building. The judiciary should punish people who carry out suits based on vengeance and should entertain claims of genuine concerns. In *Indian Council for*

²¹⁸ Regulation 2 (ii), CRZ Notification of 1991.

²¹⁹ Supra N. 215.

²²⁰ Id.

Enviro- Legal Action v. Union of India²²¹, The Supreme Court instructed States to create coastal zone management authorities to develop a coastal zone management plan for the enforcement of the CRZ laws. In S.Jaganath v. Union of India & Ors²²², The court took into consideration the consequences of shrimp farming in coastal areas such as loss of agricultural land and mangroves, obstruction of natural drains, salinization, and destruction of natural seed resources, drug use and chemical substances.

In Goan Real Estate & Construction Ltd. & Another v. Union of India²²³, In the event that all construction activities within CRZ are not in violation of the requirements of the notifications until the approval of the management plans, the court made a warning. It is at this stage that the Goa State Coastal Authority announced the construction was taking place in violation of CRZ guidelines in as much as it was between 50 meters and 100 meters. This ruling extends to all situations in the coastal regions of the country where building has happened or was under way. In the case of UT of Lakshwadweep v. Seashells Beach Resort²²⁴, the Supreme Court took a different view by setting aside the interim order passed by the High Court which granted permission to operate the immediately after the Notification of the Island Security Zone came into being. After considering the current circumstances, the court found it necessary to appoint an expert committee to prepare the Integrated Island Management Plan, as well as issues related to tourism growth in the region and the need for home stays.

In Vaamika Island (Green Lagoon Resort) v. Union of India²²⁵, The Supreme Court upheld the High Court's decision against the resort and supported the already constructed building demolition decision. This decision was reached by the court on the basis of the 2011 CRZ Notification identifying Vembanad backwater as a CVCA. The area is covered under CRZ-I, and any construction that occurred in violation of the 1991 and 2011 CRZ notification provisions should be demolished as directed by the High Court. The Secretary Kerala State Coastal Management v. DLF Universal Limited²²⁶, The issue raised in this case is the granting or non-granting of environmental clearances for buildings within the country's environmentally sensitive areas. The fight

²²¹ Indian Council for Enviro-Legal Action v. Union of India, 1996 (5) SCC 281.

²²² S.Jaganath v. Union of India & Ors, (1997) 2 SCC. 87.

²²³ Goan Real Estate & Construction Ltd. & Another v. Union of India (2010) 5 S.C.C. 281.

²²⁴ UT of Lakshwadweep v. Seashells Beach Resort, (2012) 6 S.C.C. 136.

²²⁵ Vaamika Island (Green Lagoon Resort) v. Union of India (2013) 8 S.C.C. 760.

²²⁶ Kerala State Coastal Management Authority v. DLF Universal Ltd (2018) 2 S.C.C 203.

between protection of the environment and the need for development is a complicated issue, and it is difficult to find a solution to such a problem. The fight between environmental protection and development is one that never ends. The Supreme Court upheld the High Court decision stating the DLF to pay a compensation of 1 crore.

*Piedade Filomena Gonsalves v. State Of Goa And Ors*²²⁷ is a case concerning the construction of a building without obtaining authorisation from the authorities concerned. A special request for leave was filed at the Supreme Court against the High Court's order to demolish the structure built. The practice of regularizing unauthorized buildings made by erring buildings in violation of the law was not approved by the Supreme Court and there was no place in the same humanitarian and equitable grounds. In *Anil Hoble v. Kashinath Jairam Shetye*²²⁸, It was held that any unauthorized structure falling inside the No Construction Zone in the CRZ III area was expected to be demolished and even the authorisation given by the Coastal Zone Management Authority was in vain. Likewise, the process of regularizing illegal buildings rendered by erring buildings in violation of law did not find acceptance from the Supreme Court and there was no place on the same humanitarian and egalitarian grounds. In the case of *M. Nizamudheen v. Chemplast Sanmar Limited and Others*²²⁹, Limiting the transfer of hazardous substance to port ports, terminals and refineries in the port area for CRZ protection alone is an absurd interpretation according to the court. A purposeful definition allows the term 'in the port area' to be read as 'in or around the port areas'. An investigation found that the authorisation given by the MoEF to the Chemplast exercised the powers conferred under the notification of Regulation 3 of 1991. Hence the executive engineer's permission is valid.

From the decisions of the courts it is evident that the judiciary has a wider role in the development of CRZ Regulations even though there are flaws. It is also not be noted that mere judicial role is not sufficient for the better implementation of the regulations but a combined effort from the executive and legislative branch is needed to protect the environment. The protection of the environment and the coastal ecosystem should be a

²²⁷ *Piedade Filomena Gonsalves v. State Of Goa and Ors* (2004)3 SCC 445.

²²⁸ *Supra* N. 205.

²²⁹ *Supra* N. 216.

priority of every branch of the Government and the people rather than a mere responsibility.

CHAPTER – 6: SUGGESTIONS AND RECOMMENDATIONS

INTRODUCTION

The Coastal Regulation Zone Notification has undergone a huge number of amendments and developments. The latest CRZ notification 2019 is a mere notification enforced to benefit the commercial sector and development without considering the environment. The government while making amendments to the law should address the aggrieved parties and make the necessary changes before the law being enforced. However in this case the government has not addressed the fisher folk and the community that depends on the shoreline in regard to the notification. The CRZ notification 2019 is a hindrance to the coastal livelihood making it difficult for the coastal people to have their lives going. There is a clear avoidance of the fisher folk and coastal community from the part of the government as the government favour's the development is more important over the lives of the people and the environment. Climate change is another factor that needs to be considered because the rise in sea levels will be a problem for the whole world which is a potential threat to humans and the marine ecosystem. There will be concurrent floods which will cause damages to the property and results in huge loss of mankind. The protection of these zones are significant because the majority of the population inhabit such areas and the people living in the coastal areas are often at risk because of climate change, which has caused an increase in frequency and intensity of extreme weather events.

Through this study, the researcher has tried to bring about a brief understanding of the development of coastal zone management. Since time immemorial humans have transformed and exploited resources of the coastal environment for achieving their interest. A lot of developmental activities including the building of ports, seawalls, utilization of fertile coastal soils for agriculture, trading through ports and diversion of river water flowing into the sea took place.

The Shailesh Nayak Committee haven't incorporated the suggestions from the part of the fisher folk community as they are the most suffered. The CRZ notification 2019 has diluted India's only system for protecting the coastal environment and the notification is vehemently opposed by the fisher folk at the same time they have been

wholeheartedly welcomed by the people involved in construction projects and those in the tourism sector. The Coastal Zone Management Authorities lacks awareness regarding the coastal zone management and the need for educating the authorities should be a mandatory procedure. It is also clear from the cases before the judiciary that the coastal zone management authorities and other government officials are least interested in the protection of the coastal areas and put their personal interest above all in the name of development.

FAILURE OF CRZ NOTIFICATION 2019

The new notification has failed to take into consideration the needs and interest of fisher folk. The concerns of the fisher folks find no place in the notification. The 2019 notification though directly not threatening the lives of fishers, in the course of time it will affect the livelihood of fisher folk occupying the 7500 km coastline of India. The fishing communities are using a more significant portion of the coastal stretch for securing a livelihood, allowing any developmental activities along the coastal stretch would be an intrusion into their lives. The new notification seems to be more in favour of construction activities rather than protecting the coastline.

The government is more concerned about economic progress rather than the protection of the environment and lives of its people. The committee headed by MS Swaminathan, which set up post-tsunami attacks on the Indian coast, went as far as to suggest a land rights recognition law in line with the 2006 Forest Rights Act for coastal communities based on their customary rights. Unfortunately, these suggestions were never taken seriously, and no effort was ever made to put them into effect. The CRZ notification 2019 has been brought into force without taking into account the concerns of 171 million, or 14% of the population living in coastal districts. Among this, over 12 million people depend on fishing for their livelihood.

The provisions of the latest notification show that the general attitude of the leaders of the political economy of India is not in favour of the principles of conservation, self-management and sustainability. The state and its administration are only concerned about economic interest and are leaving open coastal stretches for various activities such as aquaculture, tourism development, power production etc., and they are never bothered about the people's demand for protection of the environment and the

maintenance of sustainability. Prior to the approval and issuance of these regulations, scrutiny may be made from the point of view of conservation, self-management and sustainability.

The CRZ notification 2019 increases the vulnerability of coastal people to climate disasters. Another issue which raises concern is the dumping of waste into water bodies. The indiscriminate disposal of trash into water bodies has made groundwater non-potable in many areas. Though attempts to get rid of untreated sewage and waste disposal has been initiated right from the 1991 notification through the provisions contained in it. But in practice, they are not appropriately implemented in spite of the fact that all states except Goa and Kerala have prepared their Coastal Zone Management Plans.

On an analysis of the effectiveness of coastal regulations for developmental projects and the associated environmental impacts on the tidal stretches of India, it is found that compliance with the rules is deficient. In most of the case construction activities have taken place without prior permission. The government authorities will close their eyes to all illegalities and violations, and the courts will legalize them on the grounds of state negligence. This attitude of the judiciary has always been a motivational factor for constructions in violation of rules. The provisions of the new notification dilute coastal protection, and it is a boost for tourism and other developmental activities. Taking into consideration all these circumstances, it is high time to adopt a coastal policy to conserve and protect the environment and the communities.

CHALLENGES

It will also be in everyone's interest to provide more transparency to ensure that lawsuits filed in various courts by so called public-spirited people or environmentalist organizations of so-called concern are bona fide and not filed for ads or as a front for corporate rivalry. Before a court or authority launches into a full-blown investigation of the allegations, the person/group filing the complaint should first satisfy themselves about the bona fides. In case the court is not satisfied with the genuineness of the complainants/petitioners it should place tremendous costs on them.

Even though the CRZ regulations have been established since 1991, degradation of the coastal environment continues because of the lack of technical expertise in the matter of environmental evaluation of projects. The other challenges faced in the protection of the coastal environment are inconsistency in the enforcement of the regulations, lack of community participation.

It will be a great initiative if the systems and processes are adequately audited by a competent external agency and ensuring that the guidelines have been adhered to. The most common practice is the identification of the flaws and violations at the time of sale of property or when some public-spirited person files a Public Interest Litigation.

From time to time, it will be worth re-examining the competence of the various approved agencies listed by the Ministry of the Environment to recommend clearance of projects, inasmuch as the Ministry relies solely on their recommendations when scrutinizing a project and giving its go-ahead.

SUGGESTIONS AND RECOMMENDATIONS

In this section, the researcher points out some of the suggestions and recommendations to fill the lacunae in this existing law. The Coastal Regulation Zone regime can be effectively regulated if the following are adopted:

➤ Statute

The need for legislation or a statute regarding the CRZ is the need of the hour. The current CRZ law is in the form of a notification which is a mere formal declaration approved by the government. In contrast, a statute is an instrument passed by the legislative organ of the government. The law should be enacted only after proper consultation with the fishing communities, stakeholders and scientists and the department concerned. The government should make up its mind and instead of bringing in notifications one after the other, and introducing an infinite number of amendments, should come up with an exclusive act for the coastal areas.

➤ Time-bound implementation

The need for time-bound implementation of the CRZ laws are necessary, and the State Coastal Zone Management is required to bring out an effective coastal zone management plans to protect the coastal areas within the ambit of the state.

➤ Changing the Non-Development Zone

The need for changing the Non-Development Zone from 50 meters to 200 meters is necessary for the betterment of the coastal lands and islands from destruction. A 50-meter clearance is not enough as the coastal areas are ecologically fragile and damage the ecosystem.

➤ The utilisation of the Precautionary Principle, Polluter Pays Principle & Public Trust Doctrine.

➤ Awareness

Awareness of coastal zone management and practices should be done across the country in collaboration with local self-government, state coastal zone management and fishing communities.

➤ CVCA Regulations

The regulations for the Critically Vulnerable Coastal Areas (CVCA) should be introduced concerning the CRZ law in consultation with the State Coastal Zone Management Authority and the public.

➤ Make adequate regulations in consultation with the citizens living near the coastal areas and the fisher folk community concerning their homes and construction of houses.

➤ Restriction of construction activities in coastal areas should be imposed except for drinking water facilities and toilets.

- The Ministry of the Environment should also set specific guidelines or standards on the basis of which there is a suitable scientific way to analyze the facts (e.g. maps of land use, etc.), considering that technology has evolved over the years, and there is a vast amount of scientific data available for analysis.
- While time-consuming exercise, it would be helpful if the authorities concerned identified and continuously engaged with the project proponent on the various compliances to be made post the recommendations after reviewing a particular proposal of a project proponent and after considering it suitable for a recommendation. It would go a long way towards ensuring that there is constant oversight by the authorities on any level and after a project's conclusion to ensure that the project is environmentally acceptable for all future periods.
- Take appropriate measures to rehabilitate people who have been displaced from houses or flats which are constructed in violation of CRZ notification.
- There should be an active involvement of the authorities from the central level to the local level. There is a need for great involvement for the protection and conservation of marine ecosystem and coastal zones from the authorities like National Centre for Sustainable Coastal Management and Coastal Zone Management Authorities.

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