



# Coastal Ecology: Development, Directions and Dimensions

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*Preservation and protection of coastal ecology and the marine environment are the most significant challenges before the world community. The UN Convention on the Law of Sea, 1982 has made extensive provisions for the protection and preservation of the marine environment. The Constitution of India is probably first in the world that makes provision for the preservation and protection of the environment. The Ministry of Environment and Forests undertook an exercise to issue the Coastal Regulation Zone Notification, 1991 to preserve, protect and promote coastal ecology. Furthermore, in a number of decisions, the Supreme Court has made effective observations for the proper preservation, protection and promotion of coastal ecology and the marine environment. The present paper highlights the problem of global warming, coastal ecology and the marine environment. Coastal States have a special interest in protecting and preserving their coastlines. Due to unique peculiar characteristics, the coastal zone is a meeting point for land, sea and inland waters. Coastal zones have played significant role in the development of culture and civilizations. It is the duty of the coastal States to preserve and protect coastal ecology and the marine environment.*

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## Introduction

In the 21st century, preservation and protection of coastal ecology and the marine environment are the most important challenges before the international law and international community. Whether academicians, lawyers, planners, oceanographers, industrialists, private citizens, commanding officers or shipmasters, the time has come for everybody to analyse where we stand, or should stand, on the issue of preservation, protection and promotion of the coastal ecology and the marine environment. The classical principles of the law of the sea have changed more after the Second World War than during the previous 400 years of recorded history. It is necessary to take a new look at the classical principles of the law of the sea, as it relates to various uses of the oceans, to protect and promote national economic development and protection and preservation of the coastal ecology and the marine environment.<sup>1</sup> The UN Convention on the Law of Sea, 1982 has brought about revolutionary changes in the classical laws governing the oceans. It provides a comprehensive framework, containing provisions regulating *inter alia*, the limits of territorial sea, access to the seas, navigation, protection, preservation and promotion of the marine environment, scientific research, settlement of disputes etc. The touchstone of the Convention is the notion that the enjoyment of rights and benefits involves the concomitant undertaking of duties and obligations so that an equitable, just and proper order may be constituted for the international community.

The protection and improvement of the human environment is a major issue, which affects the well-being of people and economic development throughout the world. The present paper talks about the protection, preservation and promotion of the coastal ecology and the marine environment at global and domestic level.

Furthermore, the paper deals with the development of environmental jurisprudence and especially coastal ecology and the marine environment. The right to a clean and healthy environment is a significant contribution by the courts. Most decisions relating to the marine environment are the outcome of Public Interest Litigations.

## Protection and Preservation of the Marine Environment Under the UN Convention on the Laws of the Sea, 1982

The UN Convention on the Law of Sea, 1982 has made extensive provisions in Part XII for the protection and preservation of the marine environment. It is one of the

longest parts in the Convention, having Articles 192–237. It lays down generally agreed provisions on this aspect. Article 1 (4) of the Convention defines the expression “pollution of the marine environment”, which may be read as follows:

*“Pollution of the marine environment” means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.*

The Convention expressly states that the “States have the obligation to protect and preserve the marine environment”<sup>2</sup> while pursuing their sovereign right to exploit their natural.<sup>3</sup> It is an obligation of the States to prevent, reduce and control pollution of marine environment individually and jointly at a global, and, as appropriate, on regional levels.<sup>4</sup> Article 194 deals with measures to prevent reduce and control pollution of the marine environment. It provides:

1. *States shall take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonize their policies in this connection.*
2. *States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention.*
3. *The measures taken pursuant to this Part shall deal with all sources of pollution of the marine environment. These measures shall include, inter alia, those designed to minimize to the fullest possible extent:*
  - (a) *the release of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping;*

- (b) *pollution from vessels, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, preventing intentional and unintentional discharges, and regulating the design, construction, equipment, operation and manning of vessels;*
  - (c) *pollution from installations and devices used in exploration or exploitation of the natural resources of the seabed and subsoil, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, and regulating the design, construction, equipment, operation and manning of such installations or devices;*
  - (d) *pollution from other installations and devices operating in the marine environment, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, and regulating the design, construction, equipment, operation and manning of such installations or devices.*
4. *In taking measures to prevent, reduce or control pollution of the marine environment, States shall refrain from unjustifiable interference with activities carried out by other States in the exercise of their rights and in pursuance of their duties in conformity with this Convention.*
  5. *The measures taken in accordance with this Part shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.*

Furthermore, under Article 207, States are required to adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources, including rivers, estuaries, pipelines and outfall structures, taking into account internationally agreed rules, standards and recommended practices and procedures. States shall take other measures as may be necessary to prevent, reduce and control such pollution. States shall endeavour to harmonize their policies in this connection at the appropriate regional level. States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources, taking into account characteristic regional features, the economic capacity of developing States and their need for economic development. Such rules,

standards and recommended practices and procedures shall be re-examined from time to time as necessary. Laws, regulations, measures, rules, standards and recommended practices and procedures shall include those designed to minimize, to the fullest extent possible, the release of toxic, harmful or noxious substances, especially those that are persistent, into the marine environment.<sup>5</sup>

States are responsible for the fulfilment of their international obligations concerning the protection and preservation of the marine environment. They shall be liable in accordance with international law.<sup>6</sup> At last, Section 11 the concluding Section of Part XII states that the provisions of the Part XII are without prejudice to the specific obligations assumed by States under special conventions and agreements concluded previously, which relate to the protection and preservation of the marine environment and to agreements which may be concluded in furtherance of the general principles set forth in the Convention. Specific obligations assumed by States under special conventions, with respect to the protection and preservation of the marine environment, should be carried out in a manner consistent with the general principles and objectives of the Convention.<sup>7</sup>

## **Provisions of Protection of Environment under the Constitution of India**

The Constitution of India is probably the first in the world that makes provision for the preservation, protection and promotion of the environment. Its Article 48-A deals with protection and improvement of the environment and provides, “The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country.” Furthermore, “The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties, and, in particular, the State shall endeavour to bring about prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health”.<sup>8</sup> It is the duty of every citizen of India to “protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures.”<sup>9</sup>

Article 21 of the Constitution of India guarantees protection of life and personal liberty. Every person has the right to protect his life and personal liberty. He cannot be deprived of his right except according to procedure established by law.

“The Precautionary Principle” and “the Polluter Pays Principle” have been accepted as part of the law of the land. It provides, “No person shall be deprived of his life or personal liberty except according to procedure established by law.” In leading case of *S. Jagannath v. Union of India*,<sup>10</sup> Justice Kuldip Singh referred to the above constitutional principles and observed:

*In view of the above mentioned constitutional and statutory provisions we have no hesitation in holding that the precautionary principle and the polluter pays principle are part of the environment law of the country.*<sup>11</sup>

Part IV of the Constitution dealing with Directive Principle of State Policy lays down provisions for the protection and improvement of environment. In order to achieve the constitutional and international obligations, Parliament has made statutory provisions for the protection and preservation of natural environment.

Recognizing the importance of the prevention and control of pollution of water for human existence, Parliament has passed the Water (Prevention and Control of Pollution) Act, 1974 (Act 6 of 1974). The Statement of Objects and Reasons to Act, *inter alia*, state:

*The problem of pollution of rivers and streams has assumed considerable importance and urgency in recent years as a result of the growth of industries and the increasing tendency to urbanization. It is, therefore, essential to ensure that the domestic and industrial effluents are not allowed to be discharged into the water courses without adequate treatment as such discharges would render the water unsuitable as source of drinking water as well as for supporting fish life and for use in irrigation. Pollution of rivers and streams also causes increasing damage to the country's economy.*

Furthermore, Parliament has also passed the Environment (Protection) Act, 1986 (29 of 1986) which has been brought into force throughout India with effect from 19 November 1986. The Act was enacted as a result of the decisions taken at the United Nations Conference on the Human Environment held at Stockholm in June 1972 in which India participated. The Indian delegation was led by the then Prime Minister of India. The Statement of objects and reason to the Act read as:

*The decline in environmental quality has been evidenced by increasing pollution, loss of vegetal cover and biological diversity, excessive concentrations of harmful chemicals in the ambient atmosphere and in food chains, growing risks of environmental accidents and threats to life support systems. The world community's resolve to protect and enhance the environmental quality found expression in the decisions taken at the United Nations Conference on the Human Environment held in Stockholm in June, 1972. The Government of India participated in the Conference and strongly voiced the environmental concerns. While several measures have been taken for environmental protection both before and after the Conference, the need for a general legislation further to implement the decisions of the conference has become increasingly evident.*

Furthermore, there are other legislations like the Wild Life Protection Act, 1972, Forest Conservation Act, 1980 and Fisheries Act 1987, which lay down useful provisions for environment protection and pollution control. However, the authorities responsible for the implementation of various statutory provisions are wholly remiss in the performance of their duties enacted under the said legislations.

### **Guidelines to Protect the Ecological Balance in the Coastal Areas**

For the protection of the ecological balance in the coastal areas, the then Prime Minister Mrs Indira Gandhi had have written a letter in November 1981 to the Chief Ministers of coastal States. In this letter, she requested to the Chief Ministers of Coastal States:

*The degradation and misutilization of beaches in the coastal States is worrying as the beaches have aesthetic and environmental value as well as other values. They have to be kept clear of all activities at least up to 500 metres from the water at the maximum high tide. If the area is vulnerable to erosion, suitable trees and plants have to be planted on the beaches 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.*

The Ministry of Environmental and Forests has set up working groups to prepare environmental guidelines for development of beaches and coastal areas in 1982.

The Ministry promulgated environmental guidelines for beaches in July 1983, which provides as follows:

*The traditional use of sea water as a dump site from our land-derived wastes has increased the polluted loads of sea and reduced its development potentials including the economic support it provides to people living nearby. Degradation and misutilization of beaches are affecting the aesthetic and environmental loss. These could be avoided through prudent coastal development and management based on assessment of ecological values and potential damages from coastal developments.*

It is important to note that that although Parliament and has enacted the aforesaid laws imposing duties on the Central and State Boards and the municipalities for prevention and control of pollution of water, many of those provisions have just remained on paper without any adequate action being taken pursuant thereto.

## **The Coastal Regulation Zone Notification, 1991**

### **A. Notification of the Coastal Regulation Zone**

The Ministry of Environment and Forests undertook an exercise regarding the protection and development of the coastal areas. The Ministry invited objections against the declaration of the coastal stretches as Regulation Zones and imposing restrictions on industries, operation and processes in the Regulations Zones.

The Central Government considered all the objections. Later on, in exercise of the powers conferred on it by clause (d) of sub-rule 3 of Rule 5 of the Environmental Protection Rules, 1986, the Government issued the Coastal Regulation Zone (CRZ) Notification on 19 February 1991.<sup>12</sup>

### **B. Prohibitions and Exceptions**

The salient features of the main Notification are that a number of activities are declared as prohibited in the Regulation Zones. These prohibitions may be read as:

- (i) *setting up of new industries and expansion of existing industries, except those directly related to water front or directly needing foreshore facilities;*

- (ii) *manufacture or handling or storage or disposal of hazardous;*
- (iii) *setting up and expansion of fish processing units including warehousing (excluding hatchery and natural fish drying permitted areas);*
- (iv) *setting up and expansion of units mechanisms for disposal of wastes and effluents;*
- (v) *discharge of untreated wastes and effluents from industries, cities or towns and other human settlements; schemes shall be implemented by the authorities concerned for phasing out the existing practices, if any, within a reasonable time period not exceeding three years from the date of this Notification;*
- (vi) *dumping of city or town wastes for the purposes of land filling or otherwise; the existing practice, if any, shall be phased out within a reasonable time not exceeding three years from the date of this Notification;*
- (vii) *dumping of ash or any wastes from thermal power stations;*
- (viii) *land reclamation, bunding or disturbing the natural course of sea water with similar obstructions, except those required for control of coastal erosion and maintenance or clearing of waterways, channels and ports and for prevention of sandbars and also except for tidal regulators, storm water drains and structures for prevention of salinity ingress and for sweet water recharge;*
- (ix) *mining of sands, rocks and other substrata materials, except those rare minerals not available outside the CRZ areas;*
- (x) *harvesting or drawal of ground water and construction of mechanisms therefore, within 200 m of HTL; in the 200 m to 500 m zone it shall be permitted only when done manually through ordinary wells for drinking, horticulture, agriculture and fisheries;*
- (xi) *construction activities in ecologically sensitive areas as specified in Annexure I of this Notification;*
- (xii) *any construction activity between the Low Tide Line and High Tide Line except facilities for carrying treated effluents and wastes water discharges into the sea, facilities for carrying sea water for cooling purposes, oil, gas and similar pipelines and facilities essential for activities permitted under this Notification; and*
- (xiii) *dressing or altering of sand-dunes, hills, natural features including landscape changes, 50 per cent of the plot size and the total height of construction shall not exceed 9 metres.*

### C. Preparation of Coastal Zone Management Plans

The main Notification laid down provisions for regulation of permissible activities. Furthermore, the coastal States and Union Territory Administrations were required to prepare, within one year from the date of the main Notification, Coastal Zone Management Plans (CZMP) identifying and clarifying the CRZ areas within their respective territories in accordance with the guidelines contained in the main Notification. Those plans were required to be approved, with or without modification, by the Central Government, Ministry of Environment and Forests.<sup>13</sup>

Furthermore, para 4 of the main Notification lays down procedure for monitoring and enforcement. It states that the Ministry of Environment and Forests and the State Government or Union Territory, and such other authorities at the State or Union Territory levels, as may be designated for the purpose, shall be responsible for the monitoring and enforcement of the main Notification within their respective jurisdictions.<sup>14</sup>

### D. Classification of Coastal Zones

Annexure I consists of para 6 (1) which relates to the classification of CRZs. The norms for regulation activities in the said zones are provided by para 6 (2) for regulating development activities. The coastal stretches within 500 m of High Tide Line (HTL) of the landward side are classified under para 6 (1) into four categories, which is as follows:

- (a) *Category I (CRZ I) includes the areas that are ecologically sensitive and important, such as national parks/marine parks, sanctuaries etc., areas rich in genetic diversity, areas likely to be inundated due to rise in sea level consequent upon global warming and such other areas as have been declared by the Central Government or the concerned authorities at the State/Union Territory level from time to time.*

*In addition thereto, CRZ I also contains the area between the Low Tide Line and the High Tide Line.*

- (b) *Category II (CRZ II) contains the areas that have already been developed up to or close to the shore line. This is the area which is within the municipal limits or in other legally designated urban areas which are already substantially built up*

*and which has been provided with drainage and approach roads and other infrastructure facilities, such as water supply and sewerage mains.*

- (c) *Category III (CRZ III) is the area which was originally undisturbed and includes those areas which do not belong either to Category I or Category II. CRZ III includes coastal zone in the rural areas (developed and undeveloped) and also areas within the municipal limits or in other legally designated urban areas which are not substantially built up.*
- (d) *Category IV (CRZ IV) contains the coastal stretches in the Andaman & Nicobar Lakshadweep and small islands except those designated as CRZ I, CRZ II or CRZ III.*<sup>15</sup>

Annexure II to the CRZ Notification, 1991 provides the guidelines for development of beach resorts/hotels in the designated area of CRZ-III for temporary occupation of tourists/visitors. The vacant area beyond 200 m in the landward side, even if it is within 500 m of the HTL can be used, after obtaining permission, for construction of beach resorts for tourists/visitors. There was no provision for allowing any fresh construction within 200 m of the HTL or within the Low Tide Line (LTL) and HTL.<sup>16</sup>

## **Judicial approach towards coastal ecology and the marine environment**

The Apex Court has delivered landmarks decisions in the direction of the protection, preservation and promotion of the coastal ecology and the marine environment. The Court has issued guidelines and laid down marvellous principles to protect and promote environmental jurisprudence and coastal ecology.

### **A. The Concept of “Sustainable Development”**

In case of *Vellore Citizens Welfare Forum*,<sup>17</sup> the Supreme Court has dealt with the concept of “sustainable development” and has specifically recognized “the Precautionary Principle” and “the Polluter Pays principle” as part of the environmental jurisprudence and specifically included in the expression “life and personal liberty” under Article 21 of the Constitution of India. The Court observed:

*The traditional concept that development and ecology are opposed to each other is no longer acceptable. “Sustainable Development” is the answer. In the*

*International sphere “Sustainable Development” as a concept came to be known for the first time in the Stockholm Declaration of 1972. Thereafter, in 1987 the concept was given a definite shape by the World Commission on Environment and Development in its report called “Our Common Future”... During the two decades from Stockholm to Rio “Sustainable Development” has come to be accepted as a viable concept to eradicate poverty and improve the quality of human life while living within the carrying capacity of the supporting ecosystems. “Sustainable Development” as defined by the Brundtland Report means “Development that meets the needs of the present without compromising the ability of the future generations to meet their own needs”. We have no hesitation in holding that “Sustainable Development” as a balancing concept between ecology and development has been accepted as a part of the Customary International Law though its salient features have yet to be finalised by the International Law Jurists.*

*Some of the salient principles of “Sustainable Development”, as culled out from Brundtland Report and other international documents, are Inter-Generational Equity, Use and Conservation of Natural Resources, Environmental Protection, the Precautionary Principle, Polluter Pays principle, Obligation to assist and cooperate, Eradication of Poverty and Financial Assistance to the developing countries. We are, however, of the view that “the Precautionary Principle” and “the Polluter Pays principle” are essential features of “Sustainable Development”. The “Precautionary Principle” – in the context of the municipal law – means:*

- (i) *Environment measures – by the State Government and the statutory authorities – must anticipate, prevent and attack the causes of environmental degradation.*
- (ii) *Where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*
- (iii) *The “Onus of proof” is on the actor of the developer/industrialist to show that his action is environmentally benign.<sup>18</sup>*

Furthermore, in *Indian Council for Enviro-Legal Action case*<sup>19</sup> the Apex Court held that “the Polluter Pays Principle” is a part of environmental jurisprudence of the country. The relevant part of the judgment is:

*We are of the opinion that any principle evolved in this behalf should be simple, practical and suited to the conditions obtaining in this country.*<sup>20</sup>

*The Court ruled that:*

*Once the activity carried on is hazardous or inherently dangerous, the person carrying on such activity is liable to make good the loss caused to any other person by his activity irrespective of the fact whether he took reasonable care while carrying on his activity. The rule is premised upon the very nature of the activity carried on.*<sup>21</sup>

## **B. Impact of Indiscriminate Industrialization and Urbanization on Coastal Ecology and the Marine Environment**

Indiscriminate industrialization and urbanization, without the requisite pollution control system, highly pollutes the coastal waters. Such developmental activities may affect public health, coastal ecology and the marine environment.

In the leading case of *Indian Council for Enviro-Legal Action case*,<sup>22</sup> a three-Judges Bench of the Supreme Court consisting of Kuldip Singh, S. Saghir Ahmad and B.N. Kirpal, JJ., has made beautiful observations regarding the significance of jurisprudence, rule of law and object and purpose of law.

It was stated that concern for the protection of ecology and for preventing irreversible ecological damage to the coastal areas of the country had led to the filing of the present petition under Article 32 of the Constitution of India as public interest litigation.

The Supreme Court held that the main Notification was issued under Sections (3) and 3(2) (v) of the Environment Protection Act, presumably after a lot of study had been undertaken by the Government. That such a study had taken place is evident from the bare perusal of Notification itself, which shows how coastal areas have been classified into different zones and the activities which are prohibited or permitted to be carried out in certain areas with a view to preserve and maintain the ecological balance. The Court observed:

*We accordingly hold, that the newly added proviso in Annexure II in paragraph 7 in sub-paragraph (I) (Item i) which gives the Central Government arbitrary,*

*uncanalized and unguided power, the exercise of which may result in serious ecological degradation and may make the NDZ ineffective is ultra vires and is hereby quashed. No suitable reason has been given which can persuade us to hold that the enactment of such a proviso was necessary, in the larger public interest, and the exercise of power under the proviso will not result in large-scale ecological degradation and violation of Article 21 of the citizens living in those areas.*<sup>23</sup>

Regarding the participation of people for the preservation, protection and promotion of the coastal ecology and the marine environment, the Court further observed:

*With increasing threat to the environment degradation taking place in the different parts of the country, it may not be possible for any single authority to effectively control the same. Environmental degradation is best protected by the people themselves. In this connection, some of the non-governmental organisations (NGOs) and other environmentalists are doing singular service. Time has perhaps come when the Government can usefully draw upon the resources of such NGOs to help and assist in the implementation of the laws relating to protection of the environment. Under Section 3 of the Act,<sup>24</sup> the Central Government has the power to constitute one or more authorities for the purposes of exercising and performing such powers and functions, including the power to issue directions under Section 5 of the Act of the Central Government as may be delegated to them.*<sup>25</sup>

Thus, the Supreme Court concluded that a law is usually laid down because the Legislature feels that it is necessary to fulfil certain objects and purposes. Law should not only be meant for law abiding. It is meant to be obeyed by all those persons for whom it has been enacted. Laying down a law, but tolerating its infringement, is worse than not making law at all.

### **C. Impact of Shrimp (Pawn) Culture Industry on Coastal Ecology and the Marine Environment**

*S. Jagannath v. Union of India*<sup>26</sup> is an important case decided by a Division Bench of the Supreme Court regarding preservation, protection and promotion of the coastal ecology and the marine environment. In this case, the Court held that sea coast and

beaches are gift of nature and any activity polluting the same cannot be permitted. It was held that the intensified shrimp farming culture by modern methods were violative of constitutional provisions and Central Acts, especially Environment Protection Act, Water (Prevention and Control of Pollution) Act and Hazardous Waste (Management and Handling) Rules.

It was held that such activity were also violative of Coastal Regulation Zone, 1991, issued under Rule 5(3) (d) of the Environment (Protection) Rules, 1986. Therefore, it could not be permitted to operate.

The Court held that a shrimp farm on the coastal area by itself operates as a dyke or a band as it leaves no area for draining of the flood waters. The construction of the shrimp farms, therefore, was violative of clause (viii) of para 2 of the CRZ Notification. The Court observed:

*Annexure-1 to the CRZ Notification contains regulations regarding Coastal Area Classification and Development. The coastal stretches within 500 m of HTL of the landward side are classified into four categories, namely, CRZ-I, CRZ-II, CRZ-III and CRZ-IV. Para 6 (2) of the CRZ Notification lays down the norms for development or construction activities in different categories of CRZ areas. In CRZ-III Zone agriculture, horticulture, gardens, pastures, parks, playfields, forestry, and salt manufacture from sea level may be permitted up to 200 m from the high tide line. The aquaculture or shrimp farming has not been included as a permissible use and as such is prohibited even in this zone. A relevant point arises at this stage. Salt manufacturing process like the shrimp culture industry depends on sea water. Salt manufacturers can also raise the argument that since they are wholly dependent on sea water theirs is an industry “directly related to water front” or “directly needing foreshore facilities”. The argument stands negated by inclusion of the salt manufacturing industry in CRZ-III Zone under para 6 (2) or the CRZ notification otherwise it was not necessary to include the industry therein because it could be set up any were in the coastal regulation zone in terms of para 2 (1) of the CRZ Notification. It is thus obvious that an industry dependent on seawater cannot by itself be an industry “directly related to water front” or “directly needing foreshore facilities”. The shrimp culture industry, therefore, cannot be permitted to be set up anywhere in the coastal regulation Zone under the CRZ Notification.<sup>27</sup>*

The Apex Court held that that before any shrimp industry or shrimp pond is permitted to be installed in the ecology fragile coastal area it must pass through a strict environmental test. There has to be a high-powered “Authority” under the Act to scrutinise each and every case from the environmental point of view. There must be an environmental impact assessment before permission is granted to install commercial shrimp farms. The conceptual framework of the assessment must be broad based primarily concerning environmental degradation linked with shrimp farming. The assessment must also include the social impact on different population strata in the area. The quality of the assessment must be analytically based on superior technology. It must take into consideration the inter-generational equity and the compensation for those who are affected and prejudiced.<sup>28</sup>

The Court issued a number of directions to be followed by the Government of India and Governments of Coastal States. The directions may be read as follows:

1. *The Central Government shall constitute an authority under Section 3(3) of the Environment (Protection) Act, 1986 and shall confer on the said authority all the powers necessary to protect the ecologically fragile coastal areas, sea shore, water front and other coastal areas and specially to deal with the situation created by the shrimp culture industry in the coastal States/Union Territories. The authority shall be headed by a retired Judge of a High Court. Other members preferably with expertise in the field of aquaculture, pollution control and environment protection shall be appointed by the Central Government. The Central Government shall confer on the said authority the powers to issue directions under section 5 of the Act and for taking measures with respect to the matters referred to in clauses (v), (vi), (vii), (viii), (ix), (x) and (xii) of sub-section (2) of Section 3. The Central Government shall constitute the authority before January 15, 1997.*
2. *The authority so constituted by the Central Government shall implement “the Precautionary Principle” and “the Polluter Pays principles”.*
3. *The shrimp culture industry/the shrimp ponds are covered by the prohibition contained in para 2(i) of the Coastal Regulation Zone Notification, 1991. No shrimp culture pond can be constructed or set up within the coastal regulation zone as defined in the Coastal Regulation Zone Notification, 1991. This shall be applicable to all seas, bays, estuaries, creeks, rivers and backwaters. This direction*

- shall not apply to traditional and improved traditional types of technologies (as defined in Alagarswami Report) which are practised in the coastal low lying areas.*
4. *All aquaculture industries/shrimp culture industries/shrimp culture ponds operating/set up in the coastal regulation zone as defined under the Coastal Regulation Zone Notification, 1991 shall be demolished and removed from the said area before March 31, 1997. The Court directed the Superintendent of Police/Deputy Commissioner of Police and the District Magistrate/Collector of the area to enforce this direction and close/demolish all aquaculture industries/shrimp culture industries, shrimp culture ponds on or before March 31, 1997. A compliance report in this respect shall be filed in the Apex Court by these authorities before April 15, 1997.*
  5. *The farmers who are operating traditional and improved traditional systems of aquaculture may adopt improved technology for increased production productivity and return with prior approval of the “authority” constituted by this order.*
  6. *The agricultural lands, salt pan lands, mangroves, wet lands, forest lands, land for village common purpose and the land meant for public purposes shall not be used/converted for construction of shrimp culture ponds.*
  7. *No aquaculture industry/shrimp culture industry/shrimp culture ponds shall be constructed/set up within 1000 meters of Chilka Lake and Pulicat Lake (including Bird Sanctuaries namely Yadurapattu and Nelapattu).*
  8. *Aquaculture industry/shrimp culture industry/shrimp culture ponds already operating and functioning in the said area of 1000 meter shall be closed and demolished before March 31, 1997. The Court directed that the Superintendent of Police/Deputy Commissioner of Police and the District Magistrate/Collector of the area to enforce this direction and close/demolish all aquaculture industries/shrimp culture industries, shrimp culture ponds on or before March 31, 1997. A compliance report in this respect shall be filed in the Apex Court by these authorities before April 15, 1997.*
  9. *Aquaculture industry/shrimp culture industry/shrimp culture ponds other than traditional and improved traditional may be set up/constructed outside the coastal regulation zone as defined by the Coastal Regulation Zone Notification, and outside 1000 meters of Chilka and Pulicat Lakes with the prior approval of the “authority” as constituted by the Apex Court. Such industries which are already operating in the said areas shall obtain authorisation from the “Authority” before*

*April 30, 1997 failing which the industry concerned shall stop functioning with effect from the said date. The Court further directed that any aquaculture activity including intensive and semi-intensive which has the effect of causing salinity of soil, of the drinking water or wells and/or by the use of chemical feeds increases shrimp or prawn production with consequent increase in sedimentation which, on putrefaction is a potential health hazard, apart from causing siltation turbidity of water courses and estuaries with detrimental implication on local fauna and flora shall not be allowed by the aforesaid Authority.*

10. *Aquaculture industry/shrimp culture industry/shrimp culture ponds which have been functioning/operating within the coastal regulation zone as defined by the CRZ Notification and within 1000 meter from Chilka and Pulizat Lakes shall be liable to compensate the affected persons on the basis of the "Polluter Pays Principle".*
11. *The authority shall, with the help of expert opinion and after giving opportunity to the concerned polluters assess the loss to the ecology/environment in the affected areas and shall also individuals/families who have suffered because of the pollution and shall assess the compensation to be paid to the said individuals/families. The authority shall further determine the compensation to be recovered from the polluters as cost of reversing the damaged environment. The authority shall lay down just and fair procedure for completing the exercise.*
12. *The authority shall compute the compensation under two heads namely, for reversing the ecology and for payment to individuals. A statement showing the total amount to be recovered, the names of the polluters from whom the amount to be recovered, the amount is to be recovered from each polluter, the persons to whom the compensation is to be paid and the amount payable to each of them shall be forwarded to the Collector/District Magistrate of the area concerned. The Collector/District Magistrate shall recover the amount from the polluters, if necessary, as arrears of land revenue. He shall disburse the compensation awarded by the authority to the affected persons/families.*
13. *The Court further directed that any violation or non-compliance of the directions of Supreme Court shall attract the provisions of the Contempt of Courts Act in addition.*
14. *The compensation amount recovered from the polluters shall be deposited under a separate head called "Environment Protection Fund" and shall be utilised for*

*compensating the affected persons as identified by the authority and also for restoring the damaged environment.*

15. *The authority, in consultation with expert bodies like NEERI, Central Pollution Control Board, respective State Pollution Control Boards shall frame scheme/schemes for reversing the damage cause to the ecology and environment by pollutions in the coastal States/Union Territories. The scheme/schemes so framed shall be executed by the respective State Governments/Union Territory Governments under the supervision of the Central Government. The expenditure shall be met from the "Environment Protection Fund" and from other sources provided by the respective State Governments/Union Territory Governments and the Central Government.*
16. *The workmen employed in the shrimp culture industries which are to be closed in terms of this order, shall be deemed to have been retrenched with effect from April 30, 1997 provided they have been in continuous service (as defined in Section 258 of the Industrial Disputes Act, 1947) for not less than one year in the industry concerned before the said date. They shall be paid compensation in terms of Section 25-F (b) of the Industrial Disputes Act, 1947. These workmen shall also be paid, in addition, six year's wages as additional compensation. The compensation shall be paid to the workmen before May 31, 1997. The gratuity amount payable to the women shall be paid in addition.*

Thus, the Supreme Court warned against coastal pollution problem and pointed out that India is facing serious environmental problem. The Court issued a number of directions to be followed by the Central Government and State Governments for the protection and promotion of the coastal ecology and the marine environment. It was further directed that any violation or non-compliance of the directions of the Supreme Court shall attract the provisions of the Contempt of Courts Act, 1971 in addition.

#### **D. Impact of Unscientific and Unsustainable Development on Coastal Ecology and the Marine Environment**

In India, the ecology of coastal zones is maintained through mechanisms stated by the Coastal Regulation Zone Notification, 1991 issued under the Environment Protection Act, 1986. The State Governments were empowered to demarcate the

zones in lines with the norms under the CRZ Notification through their CZMPs. When the CZMPs are drawn, development activities in the coastal zones are regulated by the State Governments according to CZMPs.

*Goa Foundation v. Diksha Holding Pvt. Ltd.*<sup>29</sup> is an important case decided by a Division Bench of the Supreme Court constricting of G.B. Patnaik and U.C. Banerjee, JJ. In this case, the Court had to decide whether construction of a hotel could be allowed in a settlement area considered in the CZMP drawn by the Government of Goa as CRZ-III.

The Government of India had approved the CZMP in which the whole Kankona *taluka*, except the settlement area, was demarcated as CRZ-I. The settlement area was demarcated as CRZ-III. There were a lot of settlements and built-up structures near and around the plot where the construction of the hotel was permitted. The place also was outside the NDZ of 200 m from the HTL. The Central Government had perused expert reports in detail before it granted environmental clearance. The construction of resort complex was also found not to disturb the sand dunes in the area.

Taking into account all these factors, the Supreme Court turned down the contention that the government did not apply its mind when it gave permission.

It is important to note that the needs of development have to be harmonised with the values of marine environment. This ought to be realized in this process in coastal zones only within the parameters of CRZ Notification.

The conclusion of the case is important because it highlighted the role of CZMPs prepared by the State Government in bringing beneficial gains in zoning coastal areas. Taking into account all these factors, the Apex Court found no justification why an environmentally benign project should be thwarted.

The Apex Court took the view that there should be a strike balance development activities and preservation and protection of marine environment. No activities which would lead to unscientific and unsustainable development and ecological destruction should all be allowed. It is an obligation of the Court to preserve and protect marine environment.

### **E. Construction and Development Activities in CRZ and Coastal Ecology**

Developmental activities may create problem to coastal ecosystem. Therefore, it is necessary that the projects should be designed wisely and in a sustainable manner. The developmental projects should not be designed to affect the marine environment.

In *Sneha Mandal Co-op. Housing Society Ltd. Case*,<sup>30</sup> the impact of CRZ Notification on three development projects on the Mumbai coast came for consideration before the Bombay High Court.

One of the projects involved the setting up of a bulk receiving station being a feeder plant for supplying electricity to a sub-station, which along with its infrastructure was in existence prior to the year 1991. New development is permissible according to the CRZ Notification in a developed area in CRZ-II.

Relying on the decisions of the Apex Court *Indian Council for Enviro-Legal Action I*<sup>31</sup> and *Indian Council for Enviro-Legal Action II*,<sup>32</sup> a Division Bench of the Bombay High Court held that the larger public interest, namely, the need for the bulk receiving station in the locality, receives weightage when two public interests are in conflict.

Regarding other two projects, the High Court had adopted a different approach. The construction of a helipad in the region surrounded by human habitat was without clearance either from the Ministry of Environment and Forests or from the Maharashtra State Coastal Zone Management Authority.

It was held that that the impugned proposed construction of a helipad contravened provisions of CRZ Notification, 1991 and also provisions of the Air Craft Act, 1934 and rules framed thereunder.

The other project for change of user from garden or playground to housing purpose in CRZ was also without permission or clearance from the Maharashtra State Coastal Zone Management Authority. It was held that both these projects were violating CRZ norms.

Thus, the approach of the Court was proper in direction of the protection and preservation of the coastal ecology and the marine environment.

## **F. Multi-storied Residential Complex on the Coast and Coastal Ecology**

In *Citizen, Consumer and Civic Action Group case*,<sup>33</sup> a Division Bench of the Madras High Court got an opportunity to examine the provisions relating to permissions and prohibitions in CRZ Notification. The Corporation of Chennai refused to issue the permit for a multi-storied building on the ground that the site was very close to the Adayar River, and was affected by the Coastal Regulation Zone Notification, 1991. However, all other conditions and requirements under law for getting permit were

complete. The Single Judge of the Madras High Court issued directions to the Chennai Corporation to pass the final orders within 10 days.

When the corporation was proceeding to grant the building permit, an appeal was filed against the order. Furthermore, public interest litigation was also filed to stop construction of a road adjoining the Adayar creek. The site was in a city. The prohibitions for construction in CRZ-II would affect the site, should the location be within 500 m from HTL. The Indian Institute of Technology, Madras, in their aerial inspection had stated that the construction was well outside the limit. The Tamil Nadu State Coastal Zone Management Authority had also drawn similar conclusions. The Chennai Metropolitan Development Authority had already granted permission. Before doing so, they had obtained the no objection certificate from fire service and police departments, water and sewerage board, and even from the chief engineer of the Chennai Corporation.

Another important fact was that the builder had already given a gift of land equivalent to the value of open space reservation charges. The corporation had accepted the gift.

On the basis of the reports of the concerned authorities, especially, revenue authorities, the Madras High Court concluded that there was a road that separates the Adayar creek and the site. The buildings proposed were built landward side of the road. Thus, the prohibitions in CRZ-II would hardly come into operation. Furthermore, the area was booming with several developmental and construction activities. Taking into account all these factors and developments, the Madras High Court had dismissed the prayer for the demolition of the construction. The Court held that the construction activities were not hit by Coastal Regulation Zone Notification, 1991.

Proposed construction of multi-storeyed complex in instant case was held legal and builder was held entitled to “building permit” The Court observed:

*The Courts have social accountability in the matter of protection of environment, there should be a proper balance between the same and development activities, which are essential for progress. There can be no dispute that the society has to prosper, but it shall not be at the expense of environment. In the like vein, the environment shall have to be protected, but not at the cost of the development of the society. Both the development and environment shall co-exist and go hand in*

*hand. Therefore, a balance has to be struck and administrative actions ought to proceed in accordance therewith and not de-hors the same.*<sup>34</sup>

### **G. Teaching of Significance of Natural Environment in Educational Institutions**

Today interaction of human beings with nature is so extensive that the environmental issues have assumed such proportions as to affect all humanity.<sup>35</sup> Regarding the grave consequences of the pollution of water and air and the need for protecting and improving the natural environment Venkataramiath J. observed:

*Having regard to the grave consequences of the pollution of water and air and the need for protecting and improving the natural environment which is considered to be one of the fundamental duties under the Constitution [vide Clause (g) of Article 51-A of the Constitution] we are of the view that it is the duty of the Central Government to direct all the educational institutions throughout India to teach at least for one hour in a week lessons relating to the protection and the improvement of the natural environment including forests, lakes, rivers and wild life in the first ten classes. The Central Government shall get text books written for the said purpose and distribute them to the educational institutions free of cost. Children should be taught about the need for maintaining cleanliness commencing with the cleanliness of the house both inside and outside, and of the streets in which they live. Clean surroundings lead to healthy body and healthy mind. Training of teachers who teach this subject by the introduction of short term courses for such training shall also be considered. This should be done throughout India.*<sup>36</sup>

Thus, the judiciary has given landmark decisions and directions to preserve, protect and promote marine environment. It is pious duty of the State authorities to implement the directions issued by the courts.

### **Draft Proposal Coastal Regulation Zone, 2010**

The Ministry of Environment and Forests, the Central Government vide its notification number S.O.114 (E), dated 19 February 1991,<sup>37</sup> declared CRZ. It

imposed certain restrictions on the setting up and expansion of industries, operations and processes in the said Zones for its protection.

In exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government, with a view of providing livelihood security to the local communities, promoting conservation and protection of coastal stretches, its unique environment and its marine area and promoting development through sustainable manner based on scientific principles taking into account the dangers of natural hazards in the coastal areas, sea level rise due to global warming, declared the coastal stretches of the country and the water area up to territorial water limit except the islands of Andaman and Nicobar and Lakshadweep and the marine areas surrounding these islands up to its territorial limit as CRZ, and restricted the areas from the setting up and expansion of any industry, operations or processes and manufacture or handling or storage or disposal of hazardous substances as specified in the Hazardous Substances (Handling, Management and Trans-boundary Movement) Rules, 2009.

The Notification lays down prohibited activities within CRZ.<sup>38</sup> It declares the following as prohibited activities within the CRZ:

- (i) *setting up of new industries and expansion of existing industries;*
- (ii) *manufacture or handling oil storage or disposal of hazardous substance;*
- (iii) *setting up and expansion of fish processing units including warehousing;*
- (iv) *setting up and expansion of units or mechanism for disposal of wastes and effluents;*
- (v) *discharge of untreated waste and effluents from industries, cities or towns and other human settlements;*
- (vi) *dumping of city or town waste, industrial solid waste, fly ash for the purpose of land filling or otherwise;*
- (vii) *dumping of ash or any other waste from the thermal power stations or from other industrial units;*
- (viii) *land reclamation, bunding or disturbing the natural course of seawater;*
- (ix) *reclamation for commercial purposes such as shopping and housing complexes, hotels and entertainment activities;*
- (x) *mining of sand, rocks and other sub-strata materials;*
- (xi) *drawal of groundwater and construction of mechanisms therefore, within 200mts of HTL;*

- (xii) *construction activities in CRZ-I;*
- (xiii) *any construction activity between LTL and HT; and*
- (xiv) *dressing or altering the sand dunes, hills, natural features including landscape changes for beautification, recreation and other such purpose except as permissible under the notification.*

Thus, the Draft Notification provides a vast list of prohibited activities in the CRZ. However, the list of prohibited activities in the CRZ is not satisfactory. It does not make provisions to prevent the use of fertilizers, chemicals, drugs etc. Furthermore, it does not lay down any provision for the prevention of large number of marine coastal outfalls.

## Conclusion

From the above discussion, it is clear that effective action must be taken regarding prevention of marine pollution and protection and preservation of the coastal ecology and the marine environment. It is important to note that at universal level, coastal pollution is an emerging problem. India is already suffering from a serious environmental problem.

At international level, true efforts for the protection and promotion of the global environment started with the convening of the Stockholm Conference on Human Environment held in 1972. The Proclamation laid down certain common convictions of the participant nations and made certain recommendations on development and environment.

The International Convention on the Law of Sea, 1982 has made extensive provisions for the protection and preservation of the marine environment. The Convention specifically provides that the “States have the obligation to protect and preserve the marine environment.”<sup>39</sup> It is an obligation of the States to prevent, reduce and control pollution of marine environment individually and jointly at a global, and, as appropriate, on regional levels.

The Constitution of India lays down provisions for the protection of environment. Article 48-A provides that the State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country. Recognizing the importance of the prevention and control of pollution of water for

human existence, Parliament has passed the Water (Prevention and Control of Pollution) Act, 1974 (Act 6 of 1974). Furthermore, Parliament has also passed the Environment (Protection) Act, 1986. The aim and object of the Act is to provide for the protection and improvement of environment and for matters connected therewith.

In the leading case of *S. Jagannath v. Union of India*,<sup>40</sup> a Division Bench of the Supreme Court held that sea coast and beaches are gift of nature and any activity polluting the same cannot be permitted. Furthermore, it was held that the intensified shrimp farming culture by modern methods were violative of constitutional provisions and Central Acts, especially Environment Protection Act, Water (Prevention and Control of Pollution) Act and Hazardous Waste (Management and Handling) Rules.

The Draft Proposal Coastal Regulation (CRZ) 2010 was issued by the Ministry of Environment and Forests, the Central Government vide its Notification number S.O.114 (E) dated 19 February 2010. It declared CRZ. It imposed certain restrictions on the setting up and expansion of industries, operations and processes in the said zones for its protection. It is submitted that the provisions of the Draft Proposal will be helpful to preserve, protect and promote the coastal ecology and the marine environment.

Furthermore, the Supreme Court has taken the view that there should be a strike balance development activities and preservation and protection of the coastal ecology and the marine environment. No activities that would lead to unscientific and unsustainable development and ecological destruction should be allowed. It is an obligation of the Court to preserve and protect the coastal ecology and the marine environment. In the *Goa Foundation* case,<sup>41</sup> G.B. Patnaik, J., of the Supreme Court has made beautiful observations in this regard:

*There should be a proper balance between the protection of environment and the development process: The society shall have to prosper, but not at the cost of the environment and in the similar vein, the environment shall have to be protected but not at the cost of development of the society-there shall have to be both development and proper environment and as such, a balance has to be found out and administrative actions ought to proceed in accordance therewith.*<sup>42</sup>

## Notes

1. See Malcolm N. Shaw, *International Law*, 5th edition (Cambridge: Cambridge University Press, 2003), pp. 553–555; J. Barros and D.M. Johnston, *The International Law of Pollution* (London: Macmillan, 1974), pp. 200–293; D.M. Johnston, ed., *The Environment Law of the Sea* (Gland: International Union for Conservation of Nature and Natural Resources, 1981); J.W. Kindt, *Marine Pollution and the Law of the Sea* (Buffalo, NY: Williams Hein and Co., 1986); R. Soni, *Control of Marine Pollution in International Law* (Cape Town: Juta & Co., 1985); R.A. Malviya, *Environmental Pollution and its Control under International Law* (Allahabad: Chugh Publications, 1987).
2. Article 192 of the UN Convention on the Law of Sea, 1982.
3. *Ibid.*, Article 193.
4. *Ibid.*, Articles 194–201.
5. *Ibid.*, Article 207.
6. *Ibid.*, Article 235.
7. *Ibid.*, Article 237.
8. Article 47 of the Constitution of India.
9. *Ibid.*, Article 51-A (g).
10. *S. Jagannath v. Union of India*, (1997) 2 SCC 87.
11. *Ibid.*, at p. 146, para 49.
12. By this Notification, Government declared the coastal stretches of seas, bays, estuaries, creeks, rivers and backwaters which were influenced by tidal action (in the landward side) up to 500 m from the HTL and the land between LTL and HTL as Regulation Zones. Regarding this area, it imposed, with effect from the date of the said Notification, various restrictions on the setting up and expansion of industries, operation or processes etc. in the said Regulation Zones. It was clarified that for the purposes of the main Notification, HTL was defined as the line up to which the highest high tide reaches at spring times.
13. The main Notification also provided that within the framework of the approved Management Plans, all developments and activities within the Coastal Regulation Zones, except the prohibited activities and those which required environment clearance from Ministry of Environment and Forests, Government of India, were to be regulated by the State Government, Union Territory Administration or the local Authority, as the case may be, in accordance with the guidelines contained in Annexure I and II of the main Notification. Due anticipation that it will take time until the Management Plans are prepared and approved, the main Notification made provisions that until the approval of the Management Plans, “all development and activities within the CRZ shall not violate the provisions of this Notification”. The State Governments and Union Territory Administrations were required to

ensure adherence to the provisions of the main Notification and it was provided that any violation thereof, shall be subject to the provisions of the Environment (Protection) Act, 1986.

14. There are two Annexure namely; Annexure I and Annexure II to the main Notification. Annexure I deal with the Coastal Area Classification and Development Regulations, which are for general application. Annexure II is the specific provision, which deals with the guidelines for development of beach resorts/hotels in the designated areas of CRZ-III for temporary occupation of tourists/visitors with prior approval of the Ministry of Environment and Forests.
15. Para 6 (2) of Annexure I lays down norms for regulation of activities in CRZ-I, -II, -III and -IV. With regard to CRZ-I, the norms for regulation of activities do not permit new construction within 500 m of the HTL. Furthermore, practically, no construction activity is allowed between the LTL and HTL. The norms for regulation of activities in CRZ-II relate to construction or reconstruction of the buildings within the said zone.

Regarding CRZ-III, the norms for regulation of activities, *inter alia*, provide that the area up to 200 m from the HTL is to be earmarked as “No Development Zone”. The only exception is that there can be repairs of existing authorised structures but, the permissible activity in this zone is for its use as agriculture, horticulture, gardens, pastures, parks, play fields, forestry and salt manufacture from sea water.

The norms further provide for development of vacant plots between 200 and 500 m of HTL in designated areas of CRZ-III with prior approval of the Ministry of Environment and Forests permitted for construction of hotels/beach resorts for temporary occupation of tourists/visitors subject to the conditions as stipulated in the guidelines at Annexure II.

In CRZ-IV also, detailed norms for regulation of activities are provided in the said clause 6 (2) of Annexure I.

16. Para 7(1) of the main Notification, which comes under Annexure II, contains various conditions that have to be fulfilled before approval can be granted by the Ministry of Environment and Forests for the construction of beach resorts/hotels in the designated area of CRZ-III.
17. *Vellore Citizens Welfare Forum v. Union of India & Ors*, AIR 1996 SC 2715.
18. *Ibid.*, at pp. 2720–2721, paras 10–11.
19. *Indian Council for Enviro-Legal Action v. Union of India*, (1996) 3 SCC 212.
20. *Ibid.*, at p. 246, para 65.
21. *Ibid.*, at p. 246, para 65.
22. *Indian Council for Enviro-Legal Action v. Union of India*, (1996) 5 SCC 281. See also *Indian Council for Enviro-Legal Action v. Union of India*, AIR 1996 SC 1446; (1996) 3 SCC 212.
23. *Ibid.*, at p. 298, para 38.

24. Act here means the Environment Act, 1986.
25. *Ibid.*, at pp. 302–303, para 47.
26. (1997) 2 SCC 87. The case was heard by a Division Bench consisting of Kuldip Singh and S. Saghir Ahmad JJ. However, the judgment of the Court was delivered by Kuldip Singh, J.
27. *Ibid.* at pp. 105–106, para 25.
28. *Ibid.*, at p. 146, para 50.
29. AIR 2001 SC 184.
30. *Sneha Mandal Co-op Housing Society Ltd. v. Union of India*, AIR 2000 Bom 121. The case was heard by a Division Bench of the Bombay High Court consisting of Y.K. Sabharwal, C.J. and S.H. Kapadia, J. However, the judgment of the Court was delivered by Y.K. Sabharwal, C.J.
31. *Indian Council for Enviro-Legal Action v. Union of India*, AIR 1996 SC 1446: (1996) 3 SCC 212.
32. *Indian Council for Enviro-Legal Action v. Union of India*, (1996) 5 SCC 281.
33. *Citizen, Consumer and Civic Action Group v. Union of India*, AIR 2002 Mad. 298. The case was heard by a Division Bench of the Madras High Court consisting of K. Narayan Kurup and Ramamurthi, JJ. However, the judgment of the case was delivered by K. Narayan Kurup, J.
34. *Ibid.*, at p. 307, para 14.
35. Dharmendra S. Sengar, *Environmental Law*, (Prentice Hall of India, New Delhi, 2007), p. 1.
36. *M.C. Mehta v. Union of India*, (1988) 4 SCC 471, at p. 491, para 24.
37. DRAFT (To be published in the Gazette of India, Extraordinary, Part-II, Section 3, Sub-section (ii) dated April 2010) Government of India. The Ministry of Environment and Forests, New Delhi, April 2010.
38. Para 3 of the Draft Notification.
39. Article 192 of the UN Convention on the Law of Sea, 1982.
40. *S. Jagannath v. Union of India*, (1997) 2 SCC 87.
41. *Goa Foundation v. Diksha Holding Pvt. Ltd.*, AIR 2001 SC 184.
42. *Ibid.*, at p. 187, para 6.