



Title	Environmental Management on the Seabed
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# **Environmental Management on the Seabed**

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## **Abstract**

The Area is defined as the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction. In other words, it consists of the entire ocean floor which is not subject to sovereign rights of coastal states in an Exclusive Economic Zone or Continental Shelf. The water surface above the area is the High Seas. While the latter is governed by the principle of freedom of the seas, the Area has been declared the common heritage of mankind. International Seabed Authority is responsible to protection and preservation of the marine environment in the Area. There are many issues relating to a law-making mechanism for almost every aspect concerning the activities in the Area such as dredging, drilling, excavation, disposal of waste, construction and operation or maintenance of installations, pipelines and other devices related to such activities and the prevention of damage to the flora and fauna of the marine environment are still existed to be studied.

Key words : the Seabed, the Common Heritage of Mankind, Marine Environment.

## **Introduction**

The Sea-bed covers more than 70 percent of the earth's surface. It contains the earth's deepest valleys, some of the highest peaks and the largest mountain ranges, including volcanoes not always full extinct.<sup>1</sup> The definition of the Area Article 1(1) of the United Nations Convention on the Law of the Sea provided that the Area means the sea-bed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction. All rights to the resources of the Area belong to all mankind and common heritage of mankind, the International sea-bed Authority acting on behalf of humanity.

## **Materials and Methods**

A review was made of the legal concepts to environmental management on the deep sea-bed and implementation of environmental management. It was covering United Nations Convention on the Law of the Sea (UNCLOS), International Maritime Organization (IMO), United Nations Environment Programme (UNEP) and Convention on Biological Diversity (CBD).

## **Finding**

States obligations under international law, including UNCLOS, to protect the marine environment and to conserve living marine resources in areas beyond national jurisdiction calls

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<sup>1</sup> Evan Luard, The control of the Sea-bed, Heinemann, London, 1974, p. 4.

for new tools integrated approaches, based on science and precaution, which cover measures for the preservation and conservation of marine biodiversity. It is including area based management approaches and marine protected areas and networks ,prior environmental impact assessments, improved regulation of sectoral activities. It also includes the broader ecosystem-based marine spatial planning; as well as the management of marine genetic resources on the seabed, including aspects relating to benefit sharing.

### **Discussion**

**Customary international law**, it is not surprising to find that the international law relating to marine pollution is contained almost wholly in treaties, of which there is a considerable number. The first of these treaties was adopted in 1954 although a draft treaty dealing with oil pollution from ships was drawn up in 1926 but was never opened for signature. Little attention was paid to pollution at UNCLOS I, apart from the general obligations imposed on States to prevent marine pollution by oil and radioactive waste, in Articles 24 and 25 of the High Seas Convention.<sup>2</sup>

**Before 1960** there is little concern with pollution of the sea. This situation changed, however, as a result of events such as accidents to the oil tankers Torrey Canyon off Land's End in 1967, Amoco Cadiz off Brittany in 1978, Exxon Valdez in Alaska in 1989 and Sea Empress of south-west Wales in 1996, all of which ran aground spilling thousands of tones of crude oil into the sea; the blow-outs to oil wells in the Ekofisk field in the North Sea in 1977 and Ixtoc I off Mexico in 1979, which again resulted in vast quantities of oil being spilled into the sea; and a pesticide formerly used in agriculture, and other dangerous chemicals originating from the land, the shellfish, fish and even penguins in the Antarctic. These and many more instances have over the past three decades or so alerted policy-makers, legislators and the public generally to the growing problem of marine pollution.<sup>3</sup>

Relating to the marine environment, **United Nations Convention on the Law of the Sea**, 1982 provided that :

1. International rules, regulations and procedures shall be established in accordance with Part XI to prevent, reduce and control pollution of the marine environment from activities in the Area. Such rules, regulations and procedures shall be re-examined from time to time as necessary.
2. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from activities in the Area undertaken by vessels, installations, structures and other devices flying their flag or of their registry or operating under their authority, as the case may be. The requirements of such laws and regulations shall be no less effective than the international rules, regulations and procedures referred to in paragraph 1.<sup>4</sup>

States shall enforce their laws and regulations adopted in accordance with Article 208 and shall adopt laws and regulations and take other measures necessary to implement applicable

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<sup>2</sup> Churchill R.R and Lowe A.V, the Law of the Sea, 3rd, Manchester University Press,1999, p. 333.

<sup>3</sup> Ibid, p. 328.

<sup>4</sup> Article 209 of the United Nations Convention of the Law of the Sea, 1982.

international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities subject to their jurisdiction and from artificial island, installations and structures under their jurisdiction, pursuant to Articles 60 and 80.<sup>5</sup>

Enforcement of international rules, regulations and procedures established in accordance with Part XI to prevent, reduce and control pollution of the marine environment from activities in the Area shall be governed by that Part.

States shall be liable for damage or loss attributable to them arising from measures taken pursuant to Section 6 when such measures are unlawful or exceed those reasonably required in the light of available information. States shall provide for recourse in their courts for actions in respect of such damage or loss.<sup>6</sup>

The oceans cover two thirds of the earth's surface, and protecting them has become one of the United Nations primary concerns. The **International Maritime Organization (IMO)** is the United Nations specialized agency responsible for measures to prevent marine pollution from ships and to improve the safety of international shipping.<sup>7</sup>

The **United Nations Environment Programme (UNEP)** administers many of these treaties, while the rest are administered by other bodies, including treaty secretariats. The United Nations Convention on the Law of the Sea 1982 regulates in a comprehensive way numerous maritime issues. These include rights of civil and naval navigation; the protection of coasts and the marine environment; rights to living and non-living resources and marine scientific research.<sup>8</sup>

The principle of preservation and protection of the environment is essential basis of international environmental law. Article 192 of the UN Convention on the Law of the Sea stated that States have the obligation to protect and preserve the marine environment. To this end the **International Sea-bed Authority** shall adopt appropriate rules, regulations and procedures for *inter alia*:

- (a) the prevention, reduction and control of pollution and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment, particular attention being paid to the need for protection from harmful effects of such activities as drilling, dredging, excavation, disposal of waste, construction and operation or maintenance of installations, pipelines and other devices related to such activities;
- (b) the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment.<sup>9</sup>

For parties to the UNCLOS, international rules, regulations and procedures to prevent pollution of the marine environment from specified deep seabed activities are to be issued in accordance with Part XI of the Convention governing the Area. Article 145 of Part XI authorizes the International Seabed Authority to adopt appropriate rules and regulations to protect the marine environment with respect to mineral exploration and exploitation in the Area.

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<sup>5</sup> Article 214 of the United Nations Convention of the Law of the Sea, 1982.

<sup>6</sup> Article 232, *Ibid*.

<sup>7</sup> The United Nations Today, 2008, p. 228.

<sup>8</sup> *Ibid*, p. 284.

<sup>9</sup> Article 145 of the United Nations Convention on the Law of the Sea, 1982.

Measures for the preservation of species are a general obligation that is also stipulated in the **Convention on Biological Diversity (CBD)**. Measures for the protection of the environment include activities related to continuous environmental monitoring in the service of prevention advanced **Environmental Impact Assessment (EIA)** and development processes, as well as the general obligation to compensate for environmental damage and to restore damaged areas to their original state.<sup>10</sup>

Changes in marine areas beyond national jurisdiction systems will impact related Regions and States directly or indirectly. UNCLOS is without qualification the single most important and far-reaching legal instruments to address issues of marine conservation. The comprehensive nature of UNCLOS provides a framework to address future issues in the law of the sea and its provisions can foster additional progress in their conservation.<sup>11</sup>

### **Conclusion**

A key legal environmental component of deep seabed mining legislation is the requirement to conduct a prior environmental impact assessment for each proposed development. Although there can be some general environmental characterisations inferred for a particular mineral deposit type, a thorough individual environmental baseline, including physical, oceanographic, biological and existing activities assessment, is required. This baseline is not only needed to determine the potential environmental impacts and gain government approval, but will also be relied upon for effective monitoring of mining activities.

This is a new industry and new learnings and discoveries will be made along the way. It is, therefore, important to take a precautionary approach and incorporate adaptive management to ensure appropriate reactions to monitoring programmes and that up-to-date best environmental practice is adhered to.

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- [4] The United Nations Today, 2008.
- [5] <http://www.sopac.org/dsm>

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<sup>10</sup> Article 206 of the United Nations Convention on the Law of the Sea, 1982.

<sup>11</sup> <http://www.sopac.org/dsm>