

# Land-Based Pollution of the Sea and Due Diligence Obligations

Akiko Takano

Graduate School of Global Environmental Studies, Kyoto University, Japan

## Abstract

The purpose of this paper is to analyze whether States have an obligation to control land-based pollution into the sea under Articles 207 and 213 of the United Nations Conventions on the Law of the Sea (UNCLOS), with reference to the due diligence obligation developed in the two Advisory Opinions rendered by the International Tribunal for the Law of the Sea and the recent *Philippine v. China* case. It is concluded that this obligation of due diligence could fill part of the gap left by the lack of implementation of Articles 207 and 213 of UNCLOS, which invite States to establish global and international rules to prevent, reduce and control pollution.

**Keywords:** law of the sea, land-based pollution, transboundary environmental harm, due diligence

## 1. Introduction

One of the most significant sources of marine pollution is land-based activities, which are estimated to cause over 80 percent of all marine pollution<sup>1</sup>. Land-based pollution into the sea is of global significance due to the possible transboundary effects of marine pollution. Thus, a series of releases of radioactive contaminated water from the disaster-stricken Fukushima I (Fukushima Daiichi) nuclear power plant in March 2011 raised major concerns about the pollution of the marine environment. Consequently, neighboring Pacific and Asian countries have voiced concerns about both the environmental and economic effects of this source of marine pollution.<sup>2</sup>

The purpose of this paper is to analyze whether States have an obligation to control land-based pollution into the sea under Articles 207 (Pollution from land-based sources) and 213 (Enforcement with respect to pollution from land-based sources) of the United Nations Conventions on the Law of the Sea (UNCLOS).<sup>3</sup> In particular, this paper examines how the due obligation developed in the Advisory Opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (ITLOS) cases 17 (Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area)<sup>4</sup> and 21 (Request for an advisory opinion submitted by the Sub-Regional Fisheries Commission (SRFC))<sup>5</sup>, as well as the new award rendered in the *Philippine v. China* case<sup>6</sup>, could fill the gap left by the lack of implementation of Articles 207 and 213 of UNCLOS in relation to marine pollution in general and land-based pollution of the sea in particular.

## 2. Law of the Sea and Marine Pollution

In the context of the legal regime addressing marine pollution, UNCLOS is considered one of the most comprehensive and complex multilateral treaties ever established within the law of the sea. It not only codified existing customary law<sup>7</sup> but also created many new concepts and rules.

### 2.1 Applicability of UNCLOS

Part XII of UNCLOS establishes provisions regarding the protection and preservation of the marine environment on a global, regional and local basis. Any obligations regarding the protection and preservation of the marine environment under other conventions i.e., 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 this Convention, as indicated in Article 237 of UNCLOS.

<sup>1</sup> World Wide Fund for Nature(WWF) “Marine Problem for Nature”, [online] available at [http://wwf.panda.org/about\\_our\\_earth/blue\\_planet/problems/pollution/](http://wwf.panda.org/about_our_earth/blue_planet/problems/pollution/) (12 March 2017)

<sup>2</sup> IAEA, “IAEA Project Monitors Radioactive Release from Fukushima Accident on Asia-Pacific Marine Environment” IAEA News Centre (12 December 2012), online: IAEA <<https://www.iaea.org/newscenter/news/iaea-project-monitors-radioactive-release-fukushima-accident-asia-pacific-marine-environment>>.

<sup>3</sup> 10 December 1982, 1833 U.N.T.S. 3 (entered into force 16 November 1994) [UNCLOS].

<sup>4</sup> *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Advisory Opinion of 1 February 2011, [2011] I.T.L.O.S., online: ITLOS, <[https://www.itlos.org/fileadmin/itlos/documents/cases/case\\_no\\_17/adv\\_op\\_010211.pdf](https://www.itlos.org/fileadmin/itlos/documents/cases/case_no_17/adv_op_010211.pdf)> [ITLOS Advisory Opinion].

<sup>5</sup> *Request for an advisory opinion submitted by the Sub-Regional Fisheries Commission (SRFC)*, Advisory Opinion of 2 April 2015, [2015] I.T.L.O.S., online: ITLOS, [https://www.itlos.org/fileadmin/itlos/documents/cases/case\\_no.21/advisory\\_opinion/C21\\_AdvOp\\_02.04.pdf](https://www.itlos.org/fileadmin/itlos/documents/cases/case_no.21/advisory_opinion/C21_AdvOp_02.04.pdf) [ITLOS Advisory Opinion].

<sup>6</sup> *In re Arbitration Between the Republic of the Philippines and the People's Republic of China*, PCA Case No. 2013-19, Award (July 12, 2016), <http://www.pca-cpa.org>.

<sup>7</sup> Martin DIXON, “The Law of the Sea” in Susan Carolyn BREAU, ed., *International Law*, 3rd ed. (Oxford, England: Oxford University Press, 2013) at 218.

Indeed, these provisions are not just legal texts; they are also political documents that have resulted from diplomatic negotiations.<sup>1</sup>

After Article 192 presents the general obligations to this effect, Article 194 goes on to advise that States must take all necessary measures to prevent, reduce, and control pollution of the marine environment from any source. Article 194, para. 2 also specifies that States shall take all measures necessary to ensure that activities under their jurisdiction or control are conducted so as not to cause damage by pollution to other States and their environments. The Convention further advocates that States shall adopt laws and regulations to prevent, reduce, and control pollution of the marine environment from land-based sources (Article 207, para. 1).

### 2.2 Land Based Pollution and Prior Studies

Following the Fukushima nuclear power plant accident, several legal studies have been published – mainly by Japanese scholars – on how to construe land-based pollution into the sea under international conventions, such as UNCLOS, and under non-binding instruments, such as UN declarations and guidelines.<sup>2</sup>

The majority of these studies focus on Part XII of UNCLOS, which pertains to the protection and preservation of the marine environment. These studies also analyze the general obligations to protect the marine environment set out in Articles 192 and 194, as well as the specific provisions regarding land-based pollution set out in Articles 207 (Pollution from land-based sources) and 213 (Enforcement with respect to pollution from land-based sources).<sup>3</sup> It has been argued that these internationally agreed instruments represent a rather “modest response”.<sup>4</sup> Such a “modest response” has come about through a recognition that, regardless of the seriousness of land-based pollution of the sea, States may have to rely on non-binding legal instruments, including several international guidelines and declarations, due to the limitations of national sovereignty. Consequently, some prior studies have concluded that it is difficult to apply these UNCLOS articles on land-based pollution of the sea to the case of the Fukushima Daiichi nuclear power plant accident in Japan, given the perceived modest response.<sup>5</sup> One researcher argues that, due to the significant discretionary power given to States under Articles 192, 194, and 207 of UNCLOS, it is not easy to accuse a State of reneging on its responsibilities unless it is evident that the State clearly opposes the obligation of pollution prevention.<sup>6</sup>

Similarly, in a report published by the Policy Alternatives Research Institute (University of Tokyo), it is suggested that there are no explicit provisions in UNCLOS to ban the discharge of contaminated water from land. The report also says that only a general obligation exists, under Articles 192 and 194 of UNCLOS, to protect the marine environment, as long as no particular damage is inflicted on neighboring countries.<sup>7</sup>

### 2.3 Further Argument for Inadequacy of Control

A further argument for the inadequacy of the control of land-based pollution of the sea under the current legal framework is found in the *Oxford Handbook of the Law of the Sea*, which asserts that UNCLOS Articles 207 and 213 leave “a great deal of discretion to adopt stricter, or indeed weaker, national or regional provisions.”<sup>8</sup> Unquestionably, a review of the text of the provisions in UNCLOS does reveal the cautionary nature of this document’s approach to land-based pollution of the sea, as evidenced through its definition of “dumping” in Article 1(5)(a)(i), and the discretion is afforded to States in Article 207, para. 1. According to Article 1(5)(a), “dumping” means:

- (i) any deliberate disposal of wastes or other matter from vessels, aircraft, platforms, or other man-made structures at sea;
- (ii) any deliberate disposal of vessels, aircraft, platforms, or other man-made structures at sea

However, it should also be noted that UNCLOS includes a provision stating the general principles and obligations of pollution prevention in addition to specifying a particular obligation. States have expressed their

<sup>1</sup> Arnd BERNAERTS, “Bernaerts’ guide to the 1982 United Nations Convention of the Law of the Sea”, (Canada, Trafford Publishing, 2006)

<sup>2</sup> See, e.g., Yukari TAKAMURA, *Nuclear Accidents and International Law* [in Japanese] (Tokyo, Japan: Association of the Environmental Law Policy, 2013).

<sup>3</sup> K. NISHIMOTO, (Pari PI 11 No. 01) [International Law regarding the Release of Contaminated Water in the Fukushima Daiichi Nuclear Power Plant] [in Japanese] (11 April 2011), online: Policy Alternatives Research Institute, University of Tokyo <[http://pari.u-tokyo.ac.jp/policy/PI11\\_01\\_nishimoto.html](http://pari.u-tokyo.ac.jp/policy/PI11_01_nishimoto.html)>.

<sup>4</sup> Pierre-Marie DUPUY, Jorge E. VIÑUALES, *International Environmental Law* (Cambridge: Cambridge University Press, 2015) at 104.

<sup>5</sup> Takamura, *supra* note 9, Nishimoto, *supra* note 10

<sup>6</sup> Takamura, *supra* note 9.

<sup>7</sup> Nishimura, *supra* note 10

<sup>8</sup> Donald R. ROTHWELL, Alex G. OUDE ELFERINK, Karen N. SCOTT, and Tim STEPHENS, eds., *The Oxford Handbook of the Law of the Sea* (Oxford: Oxford University Press, 2015), Elizabeth A KIRK, “Historical Development of the Legal Regime In relation to Marine Pollution” at 526.

discretionary power and sovereignty in adopting UNCLOS. In some cases, they impose clear and direct obligations with little flexibility in the standard, although domestic process may be left to their discretion. It is not surprising that States retain discretionary power concerning the provisions of UNCLOS. Therefore, the additional conceptualizations and views of marine environmental protection that can be found in other settings are also worth examining. At the very least, such an examination provides a better understanding of their representations in UNCLOS, as explained below.

### 3. States' Obligations and Responsibilities under Environmental Principles

An alternative view of the adequacy of current international treaties is based on an interpretation of UNCLOS that allows for the incorporation of customary law in relation to the protection of the marine environment and the principles of environmental law in general.

#### 3.1 Customary Law

The protection of the marine environment is a part of environmental law, and, therefore, it is useful to consider the development of the law of the sea, which can be found in customary laws and treaties. The importance of customary laws in the area of the law of the sea was understated for many decades, until the influence of economic development on marine pollution increased. In the transboundary *Trail Smelter Arbitration (United States v. Canada)* (1938, 1941)<sup>1</sup> case in 1941, a general principle of customary law was established that "States must not permit their nationals to discharge into the sea matter that could cause harm to the nationals of other States."<sup>2</sup> This is the rule of *sic utere tuo ut alienum non laedas*, or that one must use one's own property in such a way that the use does not harm that of another – the so-called "no harm principle".

The customary law has proved rather valuable since then, with the *Torrey Canyon* oil tanker accident in 1967 applying it in the context of marine pollution and the protection of the marine environment. In a later case, the International Court of Justice reiterated its position. The existence of the general obligation of States to ensure that activities within their jurisdictions and control respect the environments of other States or of areas beyond national control is now part of the corpus of international law relating to the environment.<sup>3</sup>

#### 3.2 Due Diligence Obligation

Due diligence is the obligation imposed upon states to take measures to protect persons or activities inside or beyond their respective territories to prevent harmful events and outcomes (*Corfu Channel case (UK v Albania)*, Judgment, ICJ Reports 1949): "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States." The rights refer to "all unlawful acts that produce detrimental effects on another State." In the *Pulp Mills case on the River Uruguay (Argentina v Uruguay)*, Judgment, ICJ Reports 2010, the ICJ clarified the outlines of the obligation "due diligence", and the case states an obligation of co-operation for the implementation and application of appropriate measures for the preservation of the marine environment. Meanwhile, after a review of the international treaty, negotiations over UNCLOS commenced in 1973, and, after nine years, the Convention was adopted in 1982; it entered into force in 1994. UNCLOS is considered one of the few examples of the imposition of obligations on States in relation to the protection of the marine environment, as seen particularly in Part XII. The Convention has provisions that impose both general obligations and specific obligations. Article 207, para. 1 indicates that States shall adopt laws and regulations to prevent, reduce, and control pollution of the marine environment from land-based sources, taking into account internationally agreed rules, standards, and recommended practices and procedures. Article 207, para. 2 adds that States shall take other measures as may be necessary to prevent, reduce, and control such pollution. All States are obliged to apply these provisions because none is able to reverse the provisions in Part XII (Protection and Preservation of the Marine Environment, in particular, Article 213 as well as Articles 204-206 of UNCLOS).<sup>4</sup>

This means that the States have "due diligence" obligations, requiring them to adopt and enforce laws and regulations to ensure the fulfillment of their responsibilities.<sup>5</sup> A due diligence obligation has been developed to address the relationship between Article 194 (Measures to prevent, reduce and control pollution of the marine environment and Article 207 (Pollution from land based sources).

<sup>1</sup> III R.I.A.A. 1905, online: UN <[http://legal.un.org/riaa/cases/vol\\_III/1905-1982.pdf](http://legal.un.org/riaa/cases/vol_III/1905-1982.pdf)>.

<sup>2</sup> Robin R. CHURCHILL and Allan V. LOWE, *The Law of the Sea* (Manchester, England: Manchester University Press, 1999) at 332.

<sup>3</sup> *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, [1996] I.C.J. Rep. 1996 (I), at 241–2, para. 29.

<sup>4</sup> S. JAYAKUMAR, Tommy KOH, Robert BECKMAN, Hao Duy PHAN, eds., *Transboundary Pollution, Evolving Issues of International Law and Policy* (Cheltenham: Edward Elgar, 2015) at 138.

<sup>5</sup> *Case concerning Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, I.C.J. Rep. 2010 at 45, para. 197 [*Pulp Mills on the River Uruguay*].

### 3.3 Advisory Opinion

The 2011 Advisory Opinion from the Seabed Disputes Chamber of the ITLOS (concerning “responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area”)<sup>1</sup> provides critical guidance for the interpretation of the assertion that “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]” in the Convention. It emphasizes that the “responsibilities to ensure” are “due diligence” obligations, which means that a State must take all measures available to it within its legal system, such as the adoption of laws and regulations “appropriate to securing compliance by persons under their jurisdiction”.<sup>2</sup> In other words, as the ITLOS Advisory Opinion concludes, it is “an obligation to deploy adequate means, to exercise best efforts, to do the utmost, to obtain the result”.<sup>3</sup>

The same Advisory Opinion also referred to direct obligations to assist the relevant authority, apply a precautionary approach, apply best environmental practices, adopt measures to ensure the provisions of guarantees in the event of an emergency order by the authority for protection of the marine environment and to provide recourse for compensation with regard to damage caused by pollution. Moreover, the Seabed Disputes Chamber explicitly states that the application of the precautionary approach is a legal obligation as an established legal principle, if not a rule of customary law, and it calls attention to the link between the precautionary approach and due diligence obligations.<sup>4</sup>

### 3.4 Philippines v. China Case

The South China Sea Arbitration Award<sup>5</sup> revisits the obligation to protect the marine environment in submissions 11 and 12(b), i.e., China had violated its obligations to protect the marine environment under Articles 192 and 194 of UNCLOS. The Tribunal notes that “obligations in Part XII apply to all States with respect to the marine environment in all maritime areas, both inside the national jurisdiction of States and beyond it.”

Regarding the “general obligation” in Article 192, the Tribunal considers that “Article 192 imposes a duty on state parties, the content of which is informed by the other provisions of Part XII and other applicable rules of international law. With respect to the due diligence obligation, the Tribunal requires “due diligence”, and it extends its approach and requests the “high standard of due diligence more of a question of law”<sup>6</sup> in Part XII by adopting appropriate rules and measures, as well as a certain level of vigilance in the enforcement and exercise of administrative control.

### 3.5 Application of a Due Diligence Obligation

A due diligence obligation relates to the concept of “no harm” obligations under customary law, which has some flexibility from case to case, but it should be “appropriate and proportional to the degree of risk of transboundary harm in the particular instance”.<sup>7</sup> Regarding the discharge of land-based pollution, it is difficult to conclude that these obligations are “completely open ended” with respect to Article 194 of UNCLOS (general obligation to prevent, reduce and control pollution of the marine environment)<sup>8</sup>: the general provisions (in Part XII) appear to attempt to incorporate harmonized policies and regulations as well as international perspectives, whereas Article 207 of UNCLOS imposes a particular obligation of land-based pollution control.

Having considered the two Advisory Opinions rendered by the ITLOS (cases 17<sup>9</sup> and 21<sup>10</sup>) as well as the China v. Philippines case<sup>11</sup>, it can be concluded that the due diligence obligation can fill part of the gap left by the lack of implementation of Articles 207 to 213, which invite States to establish global and international

---

<sup>1</sup> ITLOS, *supra* note 4.

<sup>2</sup> James HARRISON, “Significant International Environmental Cases: 2010–11” (2011) 23 *Journal of Environmental Law* 517 at 518.

<sup>3</sup> ITLOS, *supra* note 4 at para. 110.

<sup>4</sup> Günther HANDL, “Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area: The International Tribunal of the Law of the Sea’s Recent Contribution to International Environmental Law” (2011) 20 *Review of European Community & International Environmental Law* 208 at 210.

<sup>5</sup> Philippines v. China, *supra* note 6.

<sup>6</sup> Makane Moise Mbengue, “The South China Sea Arbitration: Innovations in Marine Environmental Fact-Finding and Due Diligence Obligations”, Symposium on the South China Sea Arbitration, ASIL 2016.

<sup>7</sup> Catherin REDGWELL, “Transboundary Pollution: Principles, Policy and Practice”, in Jayakumar, Koh, Beckman, and Phan, eds., *supra* note 19 at 16.

<sup>8</sup> Elizabeth A. KIRK, “Science and the International Regulation of Marine Pollution” in Rothwell, Oude Elferink, Scott, and Stephens, eds., *supra* note 15 at 522.

<sup>9</sup> ITLOS (Responsibilities and Obligations), *supra* note 4.

<sup>10</sup> ITLOS (SRFC), *supra* note 5.

<sup>11</sup> Philippines v. China, *supra* note 6.

rules to prevent, reduce and control pollution from land-based sources and to prevent, reduce and control marine pollution in general.

#### 4. Considerations of Other Legal Instruments and Principles

There are several declarations that relate to the protection of marine environments from land based activities, including the Stockholm Declaration of 1972<sup>1</sup>, the Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-Based Sources of 1985<sup>2</sup>, the Washington Declaration on Protection of the Marine Environment from Land-Based Activities (1995)<sup>3</sup>, the Montreal Declaration of the Protection of the Marine Environment from Land-Based Activities (2001)<sup>4</sup>, and the Manila Declaration on Furthering the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities.<sup>5</sup>

The adoption of these declarations and of the Global Programme of Action can be seen as signifying that control of land-based activities is accelerating and that many States are concerned about the impact that land-based pollution is having on the marine environment.

##### 4.1 Precautions Approach

Principle 15 of the Rio Declaration on Environment and Development (Rio Declaration) at the 1992 United Nations Conference on Environment and Development<sup>6</sup> codified the precautionary approach for the first time and stated that lack of scientific certainty shall not be used as a reason to postpone action to prevent environmental degradation. Although the incorporation of the precautionary approach can be found in treaties such as the Convention on Biological Diversity and the Convention on Climate Change, the precautionary approach/ principle has been used in case law, and there has been discussion of whether it has become a principle of international law. Indeed, the precautionary approach has been considered a controversial aspect of international environmental law, with its legal status – and the requirement to apply it – directed by local courts and tribunals.<sup>7</sup> However, contrary to this modest approach found in customary law, the precautionary approach – as an important principle and obligation – does feature in some regional conventions, such as the OSPAR Convention (Article 2)<sup>8</sup> and the 1992 Helsinki Convention (Article 3(2)).<sup>9</sup> While its application may still be considered as leading to tensions between environmental protection and economic development for some regions, it is recognized as a useful implementation measure for use in pollution control through regional conventions, alongside reporting systems and environmental impact assessments.

The ITLOS notes, on a few occasions, that the States must “act with prudence and caution” to protect the environment (ITLOS Case Nos. 3 and 4, Order 27 August 1999, Southern Bluefin tuna, Para 77), and the Advisory Opinion, Responsibilities and Obligations of States sponsoring Persons and Entities with respect to

<sup>1</sup> UN, UN Doc. A/CONF.48/14/Rev.1 (1973), online: UNEP <<http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503>> [*Stockholm Declaration*], principles 7 and 21.

<sup>2</sup> UNEP Governing Council Decision 13/18/II, 24 May 1985, 13th Governing Council Session; *Environmental Law*, in GAOR 40th Session Supp. No. 25 (A/40/25), online: UNEP <<http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=59&ArticleID=427&l=en>> [*Montreal Guidelines*].

<sup>3</sup> *Washington Declaration on Protection of the Marine Environment from Land-Based Activities*, (1 November 1995), online: UNEP <<http://unep.org/gpa/documents/meetings/Washington/WashingtonDeclaration.pdf>> [*Washington Declaration*].

<sup>4</sup> *Montreal Declaration of the Protection of the Marine Environment from Land-Based Activities*, UN Doc. UNEP/GCSS.VII/4/Add.4 (30 January 2002), online: UNEP <<http://www.unep.org/gc/GCSS-VII/Documents/K0260101.doc>> [*Montreal Declaration*], annex I at 8.

<sup>5</sup> *Manila Declaration on Furthering the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities*, UN Doc./UNEP/WBRS.18/INF10 (12 August 2016) online:

UNEP, <[http://web.unep.org/regionalseas/sites/unep.org.regionalseas/files/documents/WBRS18\\_INF10\\_ManilaDeclaration.pdf](http://web.unep.org/regionalseas/sites/unep.org.regionalseas/files/documents/WBRS18_INF10_ManilaDeclaration.pdf)> [*Manila Declaration*]

<sup>6</sup> UN Doc. A/CONF.151/26 (Vol. I), 12 August 1992, online: UN <<http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm>> [*Rio Declaration*] at annex I.

<sup>7</sup> Duncan FRENCH, “From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor – the Seabed Disputes Chamber’s 2011 Advisory Opinion” (2011) 26 *The International Journal of Marine and Coastal Law* 525 at 549.

<sup>8</sup> *Convention for the Protection of the Marine Environment of the North-East Atlantic*, 22 September 1992 (entered into force 25 March 1998), online: OSPAR Commission <[http://www.ospar.org/site/assets/files/1290/ospar\\_convention\\_e\\_updated\\_text\\_in\\_2007\\_no\\_revs.pdf](http://www.ospar.org/site/assets/files/1290/ospar_convention_e_updated_text_in_2007_no_revs.pdf)> [*OSPAR Convention*].

<sup>9</sup> *Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992*, 9 April 1992 (entered into force 17 January 2000), online: Helsinki Commission <[http://www.helcom.fi/documents/about%20us/convention%20and%20commitments/helsinki%20convention/1992\\_convention\\_1108.pdf](http://www.helcom.fi/documents/about%20us/convention%20and%20commitments/helsinki%20convention/1992_convention_1108.pdf)> [*1992 Helsinki Convention*].

Activities in the Area (Case 17)<sup>1</sup>, 1 February 2011. In the case of South China Sea Arbitration<sup>2</sup>, there was no reference to the precautionary approach in the Award, although the Philippines claimed that China was obliged to apply the precautionary approach.

Regarding land-based pollution of the sea, having examined the definition of the Rio declaration and the above cases, it is possible to consider that the precautionary approach would apply if pollution could lead to irreversible harm, as in case of land-based pollution in particular. More importantly, the approach could be applied more widely, i.e., States should take precautionary measures to prevent and protect the marine environment in general.

#### 4.2 National Sovereignty Constrains

Due to national sovereignty over land-based activities, significant challenges exist regarding the creation of international legal frameworks for controlling marine pollution from land-based activities. For example, the imposition of international nuclear safety requirements could prove difficult because such an action might appear to infringe on national sovereignty.<sup>3</sup> Furthermore, the control of land-based activities can have direct social and economic impacts, and thus it becomes challenging for some States to exercise strict control under an international legal framework. States still have an obligation not to harm other States, as established in the Rio Declaration (Principle 2).<sup>4</sup> They also have general due diligence obligations under UNCLOS (Article 194)<sup>5</sup> and direct obligations as set out in the ITLOS Advisory Opinion<sup>6</sup> as well as by the South China Sea Award<sup>7</sup>.

Moreover, this limitation is consistent with the finding of the *Trail Smelter* transboundary pollution case<sup>8</sup> discussed above, which states that “States must not permit their nationals to discharge into the sea matter that could cause harm to the nationals of other States.”<sup>9</sup> We should be aware not only of the impact on neighboring countries but also of the impact on the global marine environment in general if contaminated water is released from land into the sea. Thus, such activity should not be permitted without limitations. Finding a balance among national sovereignty, marine environmental protection, and economic impact is clearly essential to resolving this issue.

### 5. Conclusion

Having thus reviewed the development of customary law, as well as the principles established in pertinent cases – such as due diligence obligations and the precautionary approach – it is difficult to exclude the applicability of land-based pollution of the sea, all of which falls under UNCLOS and the customary laws. Rather, it can be concluded that States have obligations of due diligence to prevent land-based pollution to the seas and oceans that could bring about serious transboundary environmental harm. As observed above, UNCLOS has provisions imposing general obligations as well as specific obligations, and thus it is not expected to have detailed provisions for each case to which it might apply. Rather, States have “obligations” to prevent marine pollution from land-based sources under UNCLOS. Indeed, it is clear that States have certain obligations to prevent marine pollution from land-based sources under Part XII of UNCLOS and customary law, and due diligence obligations could fill part of the gap left by the lack of implementation of Articles 207 and 213 of UNCLOS as well as Articles 194 and 207 of UNCLOS.

Additionally, this paper shows that it is necessary to consider the issues discussed in light of the apparently conflicting demands of the economic activities within a State, national sovereignty, and the principles of state responsibilities and obligations regarding marine environmental protection. Thus, it is a complex proposition to control land-based pollution into the sea because these economic, political, and social elements will differ from country to country, and between international and regional levels. Regardless of these difficulties, however, several declarations pertaining to land-based pollution of the sea have been adopted at the UN level to date. Additionally, global action plans and programs have been implemented, and the pace of the establishment of regional conventions has accelerated. Moreover, while declarations do not feature a binding obligation, States have agreed, in the process of preparing these declarations, upon the principles to be respected. These principles will offer useful guidelines to States in the future.

<sup>1</sup> ITLOS (Responsibilities and Obligations), *supra* note 4

<sup>2</sup> Philippines v. China, *supra* note 6

<sup>3</sup> Norbert PELZER, “Safer Nuclear Energy through a Higher Degree of Internationalisation? International Involvement versus National Sovereignty” (2013) 91 Nuclear Law Bulletin 43.

<sup>4</sup> UN, *supra* note 37.

<sup>5</sup> UN, *supra* note 3.

<sup>6</sup> ITLOS, *supra* note 4 and 5.

<sup>7</sup> Philippines v. China, *supra* note 6

<sup>8</sup> UN, *supra* note 16.

<sup>9</sup> Churchill and Lowe, *supra* note 17 at 332.

## References

- Pierre-Marie DUPUY, Jorge E. VIÑUALES, *International Environmental Law* (2015), Cambridge: Cambridge University Press
- Donald R. ROTHWELL, Alex G. OUDE ELFERINK, Karen N. SCOTT, and Tim STEPHENS, eds. (2015), *The Oxford Handbook of the Law of the Sea*, Oxford: Oxford University Press
- S. JAYAKUMAR, Tommy KOH, Robert BECKMAN, Hao Duy PHAN, eds.(2015), *Transboundary Pollution, Evolving Issues of International Law and Policy*, Cheltenham: Edward Elgar
- James HARRISON, “Significant International Environmental Cases: 2010–11” (2011), *Journal of Environmental Law* 23
- Günther HANDL, “Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area: The International Tribunal of the Law of the Sea’s Recent Contribution to International Environmental Law, *Review of European Community and International Environmental Law* 20(2) · July 2011
- Yoshifumi TANAKA, “Regulation of Land-Based Marine Pollution in International Law: A Comparative Analysis between Global and Regional Frameworks” (2006) 66 *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht* 535
- Yoshifumi TANAKA, *The International Law of the Sea*, 2nd ed. (2015), Cambridge: Cambridge University Press