

LOSI Conference Papers, 2012

**“Securing the Ocean for the Next Generation”**

*Papers from the Law of the Sea Institute, UC Berkeley–Korea Institute of Ocean Science and Technology Conference, held in Seoul, Korea, May 2012*

Proceedings edited by Prof. Harry N. Scheiber, LOSI  
and Director Moon Sang Kwon, KIOST  
Assistant Editor: Emily A. Gardner

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under International Marine  
Environmental Law**

**Adopting the Polluter Pays Principle to  
Control Marine Pollution under  
International Law from the Aspect of  
International Cooperation**

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This paper was presented at the tenth in a series of annual international conferences organized and sponsored or co-sponsored by the Law of the Sea Institute, School of Law, University of California, Berkeley, USA. The May 2012 conference was jointly sponsored and co-organized in collaboration with the Korea Institute of Ocean Science and Technology (KIOST, formerly KORDI), and hosted by KIOST on May 21-24, 2012 in Seoul, Korea. This was the third LOSI-KIOST collaboration in conferences and publications.

# **The Liability and Compensation Mechanism under International Marine Environmental Law**

## **Adopting the Polluter Pays Principle to Control Marine Pollution under International Law from the Aspect of International Cooperation**

**Chen-Ju Chen<sup>1</sup>**

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*Keywords:* Polluter Pays Principle, Liability and Compensation Mechanism, Marine Pollution, International Cooperation

**Abstract**

In order to enforce the environmental standards more effectively, especially in regard to marine pollution, the establishment of a liability and compensation mechanism has been provided under some significant international documents, particularly Principle 13 of the 1992 Rio Declaration and Principle 22 of the 1972 Stockholm Declaration. Based on this requirement, some multilateral environmental conventions have also adopted the enabling clauses to further develop this mechanism, which relies on the international cooperation among States. For instance, the UN Convention on the Law of the Sea incorporates into its framework, by rule-reference, the IMO instruments that establish the liability and compensation mechanism. However, in facing the extension and seriousness of marine pollution, the polluter pays principle when adopted into the liability and compensation mechanism is designated with more flexibility. Such circumstances constitute the limitations of the polluter pays principle. The polluter pays principle also gains its legal effects as a general principle of international environmental law. Moreover, this gain helps to enforce the environmental standards as well as the liability and compensation mechanism that is in need of, for further development and better integration with this principle. This article looks into the concepts of the polluter pays principle and the liability and compensation mechanism. Based on these concepts, this article analyses the international regime dealing with the vessel-source pollution problems. It finally suggests the international regime should deal with the pollution from seabed activities subject to national jurisdiction, drawing to a certain extent upon previous experience of the international regime as it has dealt with the vessel-source pollution.

## I. Introduction

The 1970s were a meaningful era to initiate the development of international marine environmental law. Its background is given as the fact that a series of pollution accidents and events since the late 1960s have changed the situation as the health of the marine environment was long neglected by the public prior. In 1967, the sinking of the Liberian oil tanker, the *Torrey Canyon*, woke the international community to devote attention to marine environmental protection. The following accidents, namely *Amoco Cadiz* off Brittany in 1978, *Exxon Valdez* off Alaska in 1989, *Sea Empress* off south-west Wales in 1996,<sup>2</sup> and on the other side of the world, *Amorgos* off south Taiwan in 2001,<sup>3</sup> accumulated public concerns for global marine environmental protection. Furthermore, the occurrences of offshore oil spills from oil wells in the *Ekofisk* field in the North Sea in 1977, *Ixtoc I* off Mexico in 1979,<sup>4</sup> and the most recent 2010 BP in Gulf of Mexico incident<sup>5</sup> and numerous oil spills accidents in North China's Bohai Sea<sup>6</sup> again drew further public attention to the adverse effects sea oil spills have on marine lives and environment. Other sources, such as pesticides, other hazardous chemicals and even wastes, into the sea have also deteriorated the marine environment. Obviously, the marine environment has been facing various challenges throughout these years. Therefore, the UN's Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), an advisory body in the UN system on the scientific perspective of marine environmental protection,<sup>7</sup> was established in 1969 and has conducted many marine scientific studies.<sup>8</sup> The GESAMP also published reports to cover the issues of air pollution and climate change resulted from shipping.<sup>9</sup>

From the aspect of law, the international regulations of marine pollution from ships are the most developed among those dealing with marine

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<sup>2</sup> Robin Churchill and Vaughan Lowe, *The Law of the Sea* (Manchester: Manchester University Press, 1999), p. 328.

<sup>3</sup> Taipei Times, "Taiwan seeks NT\$350m for 2001 'Amorgos' spill," January 10, 2003. Available at: <<http://www.taipetimes.com/News/taiwan/archives/2003/01/10/0000190400>> (last visited on March 10, 2012).

<sup>4</sup> Robin Churchill and Vaughan Lowe, op. cit., p. 328.

<sup>5</sup> Bryan Walsh, "The BP Oil Spill, One Year Later: How Healthy Is the Gulf Now?" Time, Science, April 19, 2011, available at <<http://www.time.com/time/health/article/0,8599,2066031,00.html>> (last visited on March 10, 2012).

<sup>6</sup> People's Daily Online, "Oil Spill Hits North China's Bohai Sea," October 16, 2011, available at: <<http://english.peopledaily.com.cn/90882/7618006.html>> (last visited on March 10, 2012).

<sup>7</sup> GESAMP, "About GESAMP," available at: <<http://www.gesamp.org/about>> (last visited on March 10, 2012).

<sup>8</sup> Ibid.

<sup>9</sup> GESAMP, Report of the Thirty-seventh Session of GESAMP, Bangkok, February 15-19, 2010.

pollutants.<sup>10</sup> Given this background, this article focuses on this set of regulations.<sup>11</sup> The emphasis in the development of these regulations in the 21<sup>st</sup> century has turned from legislation to enforcement. More specifically, the effectiveness of these regulations relies on the “liability and compensation mechanism,” which is deployed as a means to implement environmental standards or to supplement existing enforcement mechanisms.<sup>12</sup> This mechanism is mobilized not only restore any environmental damages, but also to function as a deterrent to prevent these damages from occurring in the first place.<sup>13</sup> The “polluter pays” principle, a main principle of environmental law now incorporated in numerous international environmental agreements and statements, embodies the concept of liability and compensation,<sup>14</sup> and, thereby plays a role in the efforts to improve the effectiveness of the implementation of international marine pollution regulations.

These regulations since the late 20<sup>th</sup> century have been developed on the basis of international cooperation. For instance, establishing the liability and compensation mechanism relies on international organizations or institutions, which of course are a mode of international cooperation. This impels us in this article, from a perspective of international cooperation, to examine, *first*, to what extent the polluter pays principle is adopted in the liability and compensation mechanism on the international regulations of marine pollution from ships and, *second*, to what extent this liability and compensation mechanism is established in this set of regulations for the enforcement of international marine environmental law based on the international institution. From the perspective of more public law to advance the function of this mechanism and principle, this article focuses on examining to what extent this mechanism and polluter pays principle may help to enforce the environmental standards of marine pollution. Thus, concerns for the risk-sharing by ownership interests of the shipping industries would be set aside then. Moreover, as long as the oil spill incidents in Gulf of Mexico and North China’s Bohai Sea are given greater public attention, the pollution from seabed activities subject to national jurisdiction then, which has not been much addressed by international regulations, have attracted public concern. This article, on the basis of the analysis on the international regulations of marine pollution from ships, concludes that there are lessons to be learned in dealing with the pollution from seabed activities subject to national jurisdiction.

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<sup>10</sup> Patricia Birnie, Alan Boyle, and Catherine Redgwell, *International Law & the Environment*, 3<sup>rd</sup> ed. (New York: Oxford University Press, 2009), p. 381.

<sup>11</sup> Pollution caused by nuclear activities, space objects, deep seabed mining and Antarctica are not included in the scope of this article.

<sup>12</sup> Peter Ehlers, “Origins and Compensation of Marine Pollution-A Survey,” Jürgen Basedow and Ulrich Magnus eds., *Pollution of the Sea-Prevention and Compensation* (Heidelberg: Springer-Verlag, 2007), p. 113; Rüdiger Wolfrum, “Maritime Pollution-Compensation or Enforcement?” Jürgen Basedow and Ulrich Magnus eds., op. cit., p. 129.

<sup>13</sup> Peter Ehlers, “Origins and Compensation of Marine Pollution-A Survey,” op. cit., p. 113.

<sup>14</sup> Ibid.

## II. International Cooperation under the Law of the Sea

### A. Concepts of International Cooperation

The term “international cooperation” or “law of cooperation” can be generally referred to, as suggested by Judge Wolfrum, as “the cooperation among States for the purposes of development to increase the social welfare of the world community.”<sup>15</sup> This principle is affirmed as one of the purposes of the UN.<sup>16</sup> Even though the specific concepts of international cooperation have not been clearly defined or described by international treaties or resolutions of international organizations, its importance has been emphasized in numerous international documents since the 1970s. For instance, UN General Assembly, Resolution 2849 (XXVI), Development and Environment,<sup>17</sup> which also took into account the marine pollution, recognized the importance of bilateral and multilateral cooperation to solve environmental problems.<sup>18</sup> Furthermore, it underlined “the primacy of independent economic and social development as the main and paramount objective of international cooperation, in the interests of the welfare of mankind and of peace and world security.<sup>19</sup>” The Charter of Economic Rights and Duties of States (CERDS)<sup>20</sup> also reaffirmed “the achievement of international cooperation in solving international problems in the economic and social fields”<sup>21</sup> and provided the principle of international cooperation for development as the shared goal and common duty of all States to govern the economic, political and other relations among them.<sup>22</sup> The CERDS thus encouraged the international cooperation on the basis of mutual advantage and equitable benefits for all States in the economic, trade, scientific and technical fields, regardless of their political, economic or social systems.<sup>23</sup> However, these wordings demonstrate the soft-law or voluntary nature of this principle, since these documents adopt a quite persuasive tone and lack of obligatory nature. International cooperation would be founded from bilateral or multilateral agreements and might be institutionalized as international organizations, in particular that international organizations are

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<sup>15</sup> Rüdiger Wolfrum, “International Law of Cooperation,” in Rüdiger Wolfrum ed., *Max Planck Encyclopedia of Public International Law*, (Oxford: Oxford University Press, forthcoming), <<http://www.mpepil.com>> (February 12, 2012).

<sup>16</sup> Article 1(3) of the UN Charter.

<sup>17</sup> UN General Assembly, Resolution 2849 (XXVI), Development and Environment, 10 December 1971.

<sup>18</sup> *Ibid.*

<sup>19</sup> *Ibid.*

<sup>20</sup> UN General Assembly, Resolution 3281 (XXIX), Charter of Economic Rights and Duties of States (hereinafter referred to as “CERDS”).

<sup>21</sup> Preamble to the CERDS.

<sup>22</sup> Chapter I and Article 17 of the CERDS. Other provision includes Article 19.

<sup>23</sup> Preamble to the CERDS.

established to manage such cooperation.<sup>24</sup> In addition, provided the phenomena of fragmentation of international law, the concepts of international cooperation also vary in different sections of international law.<sup>25</sup> The discussion with respect to international cooperation would then be specified in different sub-sections of international law.

## B. Illustrations of the Law of the Sea

In cases of the law of the sea, its major convention, the UN Convention on the Law of the Sea (LOS Convention),<sup>26</sup> a “framework agreement,” constitutes a mode of international cooperation promoted by the constructivists.<sup>27</sup>

The LOS Convention came as a result of the third UN Conference on the Law of the Sea between 1973 and 1982 and it was finally adopted on December 10, 1982 and enacted on December 14, 1994.<sup>28</sup> It is the most extensive and detailed product of codification activity, to date, that States have ever attempted, and successfully concluded, under the auspices of the UN. Furthermore, this convention represents the outcome of “an unprecedented, and so far never replicated, effort at codification and progressive development of international law.”<sup>29</sup> The LOS Convention, “A Constitution for the Oceans,” according to Tommy T.B. Koh,<sup>30</sup> sets forth the rights and obligations of States, and provides the international legal basis upon which to pursue the

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<sup>24</sup> Robert S. Jordan, *International Organizations: A Comparative Approach to the Management of Cooperation*, Greenwood Publishing Group, 2001, p. 10. See also Arthur A. Stein, *Why Nations Cooperate: Circumstance and Choice in International Relations*, Ithaca: Cornell University Press; Stein emphasizes that in order to coordinate and collaborate, States would choose to cooperate and international organizations would form a mode of cooperation.

<sup>25</sup> For the discussion on this principle in different sections of international law, see Rüdiger Wolfrum, “International Law of Cooperation,” in Rüdiger Wolfrum ed., *Max Planck Encyclopedia of Public International Law*, *op. cit.*

<sup>26</sup> United Nations, Division for Ocean Affairs and the Law of the Sea, United Nations Convention on the Law of the Sea (December 10, 1982), available at:

<[http://www.un.org/depts/los/convention\\_agreements/convention\\_overview\\_convention.htm](http://www.un.org/depts/los/convention_agreements/convention_overview_convention.htm)> (last visited on March 20, 2012).

<sup>27</sup> Such as Jetta Brunnee and Stephen J. Toope. Eyāl Benveniśtī, Moshe Hirsch, *The Impact of International Law on International Cooperation: Theoretical Perspectives* (Cambridge: Cambridge University Press, 2004), at 56.

<sup>28</sup> As of March 20, 2012, it has 157 signatories, 162 parties, according to UN Treaty Collection: Databases, available at:

<[http://treaties.un.org/Pages/ViewDetailsIII.aspx?&src=TREATY&mtdsg\\_no=XXI~6&chapter=21&Temp=mtdsg3&lang=en#1](http://treaties.un.org/Pages/ViewDetailsIII.aspx?&src=TREATY&mtdsg_no=XXI~6&chapter=21&Temp=mtdsg3&lang=en#1)> (last visited on March 20, 2012).

<sup>29</sup> Tullio Treves, *United Nations Convention on the Law of the Sea*, United Nations Audiovisual Library of International Law (2008), available at: <<http://untreaty.un.org/cod/avl/ha/uncls/uncls.html>> (last visited on March 20, 2012).

<sup>30</sup> Tommy T.B. Koh, *A Constitution for the Oceans* (1982), available at:

<[http://www.un.org/depts/los/convention\\_agreements/texts/koh\\_english.pdf](http://www.un.org/depts/los/convention_agreements/texts/koh_english.pdf)> (last visited on March 20, 2012).

protection and sustainable development of the marine and coastal environment and its resources. Its preamble explicitly emphasized the principle of cooperation and the convention's role in strengthening the cooperation between States.<sup>31</sup> Similarly, some fifty articles among its 320 articles and 9 annexes are related to international cooperation. Among these articles or provisions, the modes of international cooperation within the LOS Convention with relevance to the maritime zones can be classified into four pillars: (1) relevant States to cooperate to establish international organizations;<sup>32</sup> (2) relevant States to cooperate in formulating proposals and measures through competent and appropriate international organizations or in consultation with these organizations;<sup>33</sup> (3) relevant States to cooperate among themselves or through consultation;<sup>34</sup> (4) with respect to the Area<sup>35</sup> and its resources as the Common Heritage of Mankind (CHM)<sup>36</sup> as well as the International Seabed Authority (ISA).<sup>37</sup> Without relevance to the maritime zones, the international cooperation is provided in Part XII (Protection and Preservation of the Marine Environment), Part XIII (Marine Scientific Research) and Part XIV (Development and Transfer of Marine Technology), and more specifically, in each Part's respective Section II. In Part XII, the practice of international cooperation exists as to cooperate globally or regionally directly or through competent international organizations to formulate and elaborate "international rules, standards and recommended practices and procedures"<sup>38</sup> as well as scientific criteria;<sup>39</sup> to notify imminent or actual damage;<sup>40</sup> to adopt contingency plans against pollution;<sup>41</sup> to develop procedures for inspection of vessels at sea;<sup>42</sup> to implement existing international law and to further develop the responsibility and liability mechanism;<sup>43</sup> to provide scientific and technical assistance and preferential treatment for developing States.<sup>44</sup>

These concepts, to a certain extent, rely on the practice of international organizations and institutions established either inside or outside the scope of the LOS Convention framework. The former consists of the ISA,<sup>45</sup> the dispute

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<sup>31</sup> Paras. 1 and 7 of the Preamble to the LOS Convention.

<sup>32</sup> Article 64(1) of the LOS Convention.

<sup>33</sup> Articles 41(5), 61(2), 64(1) of the LOS Convention.

<sup>34</sup> Articles 43, 65, 66(3), 69(3), 70(4), 74(3), 83(3), 94(7), 98(2), 100, 108, 109, 117, 118 of the LOS Convention.

<sup>35</sup> According to Article 1.1(1) of the LOS Convention, "Area" means the "seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction."

<sup>36</sup> Article 136 of the LOS Convention.

<sup>37</sup> Articles 138, 143(3), 144(2), 150, 151(1) & (10), 160(i), 165(2), 169 of the LOS Convention.

<sup>38</sup> Article 197 of the LOS Convention.

<sup>39</sup> Article 201 of the LOS Convention.

<sup>40</sup> Article 198 of the LOS Convention.

<sup>41</sup> Article 199 of the LOS Convention.

<sup>42</sup> Article 226(2) of the LOS Convention.

<sup>43</sup> Article 235(3) of the LOS Convention.

<sup>44</sup> Articles 202-3 of the LOS Convention.

<sup>45</sup> Article 153(1) of the LOS Convention.

settlement mechanism-International Tribunal for the Law of the Sea,<sup>46</sup> and the Commission on the Limits of the Continental Shelf;<sup>47</sup> the latter includes the International Maritime Organization (IMO),<sup>48</sup> the UN Food and Agriculture Organizations (UNFAO) as well as regional fisheries management organizations,<sup>49</sup> etc.

This development illustrates that a framework agreement such as the LOS Convention relies on international cooperation to further develop and establish a more comprehensive set of rules. As far as the mechanism to control marine pollution is concerned, the importance of international cooperation under the LOS Convention would be a source of further development of the principles applicable to protecting the marine environment and conserving the marine resources. In the following sections, this article examines the polluter pays principle and the liability and compensation mechanism that is prevalent in international marine environmental law.

### **III. Polluter Pays Principle and the Liability and Compensation Mechanism in International Marine Environmental Law**

#### **A. Polluter Pays Principle**

##### **1. Concepts of Polluter Pays Principle**

The polluter pays principle, as an element of the modern approaches of environmental protection,<sup>50</sup> was firstly formally articulated, in 1972, by the Council of the Organization for Economic Co-operation and Development (OECD). According to the OECD Recommendations,<sup>51</sup> the polluter pays principle is an “economic policy and principle used for allocating or

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<sup>46</sup> Article 287(1) and Annex 6 of the LOS Convention.

<sup>47</sup> Article 76(8) and Annex 2 of the LOS Convention.

<sup>48</sup> List of IMO Conventions, available at <http://www.imo.org/About/Conventions/ListOfConventions/Pages/Default.aspx> (last visited on April 16, 2012).

<sup>49</sup> So far, more than 40 regional fisheries management organizations have been established. UNFAO, Fisheries and Aquaculture Department, “Search Fishery Governance Fact Sheets, Regional Fishery Bodies (RFB),” further information available: <<http://www.fao.org/fishery/rfb/search/en>> (last visited on April 16, 2012).

<sup>50</sup> Malgosia A. Fitzmaurice, *International Protection of the Environment*, Martinus Nijhoff Publishers, 2002, pp. 285-287, stating that other elements include the precautionary principle, environmental impact assessment and due diligence.

<sup>51</sup> UN Doc. A/ CN.4/SER.A/1995/Add.1 (Part 1), Yearbook of the International Law Commission, Volume II, Part One, Documents of the forty-seventh session, 1995, p. 80, citing OECD and the Environment (Paris, 1986), i.e. OECD Recommendation on Guiding Principles concerning International Economic Aspects on Environmental Policies (May 26, 1972); OECD Recommendation on the Implementation of the Polluter Pays Principle (November 14, 1974); OECD Recommendation on the Application of the Polluter Pays Principle to Accidental Pollution (July 23, 1989).

internalizing ‘economic costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment’ by subsidizing the environmental costs.”<sup>52</sup> This principle means that the polluter, those “who directly or indirectly damages the environment or those who creates conditions leading to such damage should bear the expenses of carrying out the measures decided by public authorities to ensure that the environment is in an acceptable state.”<sup>53</sup> In other words, the cost of these public measures should be reflected in the price of goods and services which results from pollution occurring in the process of production and/or consumption.<sup>54</sup>

The polluter pays principle consists of two component elements, namely the right to equal access and civil liability.<sup>55</sup> Equal access to national remedies has been considered as one method of implementing the polluter pay principle, as it aims to “afford equivalent treatment in the country of origin to transboundary and domestic victims of pollution damage, or to those likely to be affected by such a principle.”<sup>56</sup> The equal right of access may involve “access to information, participation in administrative hearings and legal proceedings and the application of non-discriminatory standards for determining the illegality of domestic and transboundary pollution.”<sup>57</sup> Moreover, what should be emphasized is that civil liability regimes have been considered as another method to implement the polluter pays principle. Civil liability regimes have been used in dealing with the pollutions resulting from nuclear power and oil spills.<sup>58</sup> Of further note, it has been argued that “the civil liability conventions do not necessarily implement the polluter pays principle, since States and voluntary contributions from other sources pay for the polluter.”<sup>59</sup> While this may be true, considering that the payment made by the public sectors, e.g. States, for the costs of pollution may constitute a form of subsidy and distort international trade and investment; therefore, the civil liability conventions should still take into consideration the implementation of the polluter pays principle.<sup>60</sup> Besides, making the real polluter pay can have a deterrent effect and help to avoid such consequences from illegal acts, in addition to contributing to the better enforcement of environmental regulations. The polluter pays principle, hence, should be taken into consideration in civil liability conventions.

## **2. Legal Status under International Law**

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<sup>52</sup> UN Doc. A/ CN.4/SER.A/1995/Add.1 (Part 1), Yearbook of the International Law Commission, Volume II, Part One, op. cit., paras. 102-117.

<sup>53</sup> Ibid.

<sup>54</sup> Ibid.

<sup>55</sup> Ibid., paras. 118-130.

<sup>56</sup> Ibid., para. 118.

<sup>57</sup> Ibid.

<sup>58</sup> Ibid.

<sup>59</sup> Ibid., para. 130.

<sup>60</sup> Ibid., paras. 102, 103, 105, and 113.

One may argue that the polluter pays principle is only an economic policy, not constituting (at least not yet) a general principle of international environmental law.<sup>61</sup> However, the following analysis by investigating relevant international documents demonstrates that this principle has already gained some certain legal influence.

#### a. Agenda 21

Agenda 21 was adopted in the 1992 UN Conference on the Environment and Development (UNCED), held in Rio de Janeiro.<sup>62</sup> Chapter 17 of Agenda 21,<sup>63</sup> titled “Protection of the Oceans,” also called the “Oceans Chapter,” holds that the unity of the ocean would be a starting point for a new approach to international law of the sea.<sup>64</sup> It initially emphasizes that “[t]he marine environment – including the oceans and all seas and adjacent coastal areas – forms an integrated whole that is an essential component of the global life-support system and a positive asset that presents opportunities for sustainable development.”<sup>65</sup> Chapter 17 also requires the adoption of the approach to marine environmental protection as one of the new programme areas in the marine and coastal area management.<sup>66</sup> Moreover, this decree is aware of the fact that “land-based sources contribute 70 per cent of marine pollution, while maritime transport and dumping-at-sea activities contribute 10 per cent each.”<sup>67</sup> In addition, in order to comply with the States’ responsibility under Part XII of the LOS Convention, Chapter 17 also recognizes the

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<sup>61</sup> Anthony Aust, *Handbook of International Law* (Cambridge: Cambridge University Press, 2005), pp. 331-332.

<sup>62</sup> United Nations Conference on Environment and Development, Rio de Janeiro, Braz., June 3-14, 1992, Agenda 21, UN Doc. A/CONF.151/26 (Vol. II) (August 13, 1992).

<sup>63</sup> *Ibid.* at Chapter 17.

<sup>64</sup> Yoshifumi Tanaka, “Zonal and Integrated Management Approaches to Ocean Governance: Reflections on a Dual Approach in International Law of the Sea,” 19 *INT’L J. OF MARINE & COASTAL L.* 4, 16 (2004).

<sup>65</sup> Chapter 17 of Agenda 21, para. 17.1.

<sup>66</sup> Chapter 17 of Agenda 21, para. 17.1. Its programme areas as follows:

- (a) Integrated management and sustainable development of coastal areas, including exclusive economic zones;
- (b) Marine environmental protection;
- (c) Sustainable use and conservation of marine living resources of the high seas;
- (d) Sustainable use and conservation of marine living resources under national jurisdiction;
- (e) Addressing critical uncertainties for the management of the marine environment and climate change;
- (f) Strengthening international, including regional, cooperation and coordination;
- (g) Sustainable development of small islands.

<sup>67</sup> Chapter 17 of Agenda 21, para. 17.18.

necessity to apply certain principles under international environmental law,<sup>68</sup> among which, polluter pays principle is included.<sup>69</sup>

Still, in order to prevent, reduce and control the degradation of the marine environment from sea-based activities, States should assess the need for additional measures from shipping, e.g. by “supporting the ongoing activities of the International Maritime Organization (IMO) in developing an international regime governing the transportation of hazardous and noxious substances carried by ships and further by considering whether the compensation funds similar to the ones established under the Fund Convention would be appropriate in respect of pollution damage caused by substances other than oil.”<sup>70</sup> Moreover, each programme area of Chapter 17 focuses on management activities and implementation means. It has not only emphasized the polluter pays principle but also to certain degree acknowledged the function of the compensation fund as it can play a significant role in improving the enforcement of rules. In fact, the following documents may serve to further support the status of the polluter pays principle in the liability and compensation mechanism.

#### **b. Rio Declaration on Environment and Development**

Also adopted in the UNCED, Principle 16 of the 1992 Rio Declaration on Environment and Development provides that “[n]ational authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.” This wording, reflecting the definition provided by the OECD Recommendations, is rather soft than absolute and obligatory.<sup>71</sup>

Moreover, according to the International Law Commission, the polluter pays principle may be seen as a general principle of international environmental law designed to ensure that victims who suffer harm resulting from incidents involving hazardous activities are able to obtain “prompt and

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<sup>68</sup> Chapter 17 of Agenda 21, para. 17.22, the principles include (a) preventive, precautionary and anticipatory approaches, (b) impact assessment, (c) integrated protection, (d) polluter pays principle, (e) improvement of the living standards.

<sup>69</sup> *Ibid.*, stating that it is necessary to “develop economic incentives, where appropriate, to apply clean technologies and other means consistent with the internalization of environmental costs, such as the polluter pays principle, so as to avoid degradation of the marine environment.”

<sup>70</sup> Chapter 17 of Agenda 21, para. 17.30(a)(xii).

<sup>71</sup> Alan Boyle, “Polluter Pays,” in Rüdiger Wolfrum ed., *Max Planck Encyclopedia of Public International Law*, op. cit., paras. 5-6.

adequate compensation.”<sup>72</sup> This principle has thus been incorporated into certain environmental treaties, in particular those on marine pollution.<sup>73</sup>

### c. Other Conventions and Documents

Some global and regional environmental conventions, in particular to those which focus on the European region, have explicitly identified the polluter pays principle as a general principle of international environmental law with a more fundamental and obligatory nature.<sup>74</sup>

For instance, the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention) was firstly adopted in 1974 and enacted in 1980. Due to the political changes and developments in international environmental and maritime law throughout that era, a new version was adopted in 1992 and enacted in 2000.<sup>75</sup> Under the 1992 Helsinki Convention, the polluter pays principle is strengthened as one of the fundamental principles and obligations that the Contracting Parties shall apply.<sup>76</sup>

The International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), adopted in 1990 by the IMO and came into force in 1995, as a convention dealing with the prevention of marine pollution aims to “preserve the human environment in general and the marine environment in particular.”<sup>77</sup> The OPRC Convention, in its preamble, considers the polluter pays principle as a general principle of international environmental law on the one hand, and on the other hand, takes account of other IMO conventions covering liability and compensation.<sup>78</sup>

The Convention on the Transboundary Effects of Industrial Accidents, adopted by the United Nations Economic Commission for Europe (UNECE) in 1992 and came into force in 2000, aims to protect human beings and the environment against the effects of industrial accidents.<sup>79</sup> Similar in this respect to the OPRC Convention, it also acknowledges its consideration of “the polluter pays principle as a general principle of international environmental law.”<sup>80</sup>

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<sup>72</sup> International Law Commission, Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities, with Commentaries, *Yearbook of the International Law Commission*, Vol. II, Part Two, 2006, p. 115.

<sup>73</sup> Alan Boyle, “Polluter Pays,” op. cit., paras. 5-6.

<sup>74</sup> Rüdiger Wolfrum, “Transboundary Pollution,” in Fred Morrison and Rüdiger Wolfrum (eds.), *International, Regional, and National Environmental Law*, Springer (2000).

<sup>75</sup> The Helsinki Convention, latest amendments entered into force on November 15, 2008, available at: <<http://www.helcom.fi/stc/files/Convention/Conv1108.pdf>> (last visited on March 10, 2012).

<sup>76</sup> Article 3(4) of the 1992 Helsinki Convention.

<sup>77</sup> Preamble to the OPRC Convention.

<sup>78</sup> Ibid.

<sup>79</sup> Preamble to the Convention on the Transboundary Effects of Industrial Accidents.

<sup>80</sup> Ibid.

Furthermore, the principle is found in the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), which was opened for signature at the Ministerial Meeting of the Oslo and Paris Commissions in Paris in 1992 and entered into force in 1998. Under the OSPAR Convention, one of the two general obligatory principles that the Contracting Parties shall apply is the polluter pays principle, by virtue of which the costs of pollution prevention, control and reduction measures are to be borne by the polluter.<sup>81</sup>

However, these conventions do not provide more significant details on the definition and specific elements of this principle. Two issues should be raised: firstly, whether this principle is universally applicable; secondly, whether this principle constitutes customary international law. Birnie and Boyle have considered that this principle can neither be treated as a “rigid rule of universal application” nor be implemented in the same way in all cases.<sup>82</sup> They both recognized the existence of the flexibility in the application of this principle, as differences reveal in the nature of the risk and in the capacity of the industries which have various economic feasibilities.<sup>83</sup> Furthermore, the legal status of the polluter pays principle as customary international law would be doubtful; in relation to States in the EC, the UNECE, and the OECD, such doubt can be reduced as demonstrated by the regional environmental conventions and recommendations.<sup>84</sup> Nonetheless, it is said that the practice of the United States does not fully sustain the polluter pays principle.<sup>85</sup> Obviously, this principle does not form universally applicable customary international law.

Another example used to describe the legal status of the polluter pays principle is the case of the Convention on the Transboundary Effects of Industrial Accidents. In the other paragraph of convention’s preamble, it also emphasizes “the principles of international law and custom, in particular the principles of good-neighbourliness, reciprocity, non-discrimination and good faith.”<sup>86</sup> Not listing together with these “principles of international law,” the polluter pays principle did not seem to be receiving the same legal standing as the “general principles of international law.” The polluter pays principle, however, can be considered as “a general principle of international

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<sup>81</sup> Article 2(2)(b) of the OSPAR Convention. The other general obligatory principle is the precautionary principle, “by virtue of which preventive measures are to be taken when there are reasonable grounds for concern that substances or energy introduced, directly or indirectly, into the marine environment may bring about hazards to human health, harm living resources and marine ecosystems, damage amenities or interfere with other legitimate uses of the sea, even when there is no conclusive evidence of a causal relationship between the inputs and the effects.”

<sup>82</sup> Birnie and Boyle, *International Law*, pp. 94-95.

<sup>83</sup> *Ibid.*, p. 95.

<sup>84</sup> Rüdiger Wolfrum, “Transboundary Pollution,” in Fred Morrison and Rüdiger Wolfrum (eds.), *International, Regional, and National Environmental Law*, *op. cit.*

<sup>85</sup> Birnie and Boyle, *International Law and the Environment*, pp. 94-95.

<sup>86</sup> Preamble to the Convention on the Transboundary Effects of Industrial Accidents.

environmental law,” as it has been underlined in numerous international and regional environmental conventions.

In other words, the polluter pays principle on the basis of these conventions gains certain legal influence as “a general principle of international environmental law.” Nonetheless, since these conventions do not provide a clear scope and coverage of the principle and the application of these conventions has not been universally practiced by States, this principle has not formed customary international law and general principle of international law. In the most recent informal documents prepared by the UNEP, this principle again received some attention. For example, in the Draft Guidelines for the Development of National Legislation on Liability, Response Action and Compensation for Damage Caused by Activities Dangerous to the Environment noted in the fourth programme for the Development and Periodic Review of Environmental Law at the Governing Council of the UNEP in 2008,<sup>87</sup> the polluter pays principle had been emphasized to be taken into account when establishing an effective regime on environmental liability, redress and compensation.<sup>88</sup> Additionally, a commentary prepared by UNEP Consultants and Secretariat also expressed that a national and/or domestic law should make explicit references to the polluter pays principle as a basic organizational concept for environmental liability, redress and compensation.<sup>89</sup>

If one does not argue the effectiveness and the universal application of these international documents, it can be principally found that there has been a trend since the 1992 Rio Declaration to accept the polluter pays principle. Such effect emphasizes the implementation of the polluter pays principle through the establishment of the liability and compensation mechanism on marine pollution.

### **3. Limitations of Polluter Pays Principle**

The uncertainties and flexibilities of polluter pays principle are grounded in various limitations of the principle, which include; the burden of proof, the coverage of long-term damage on the victims, the limits in amount when the strict liability is adopted, and the narrow definition of damage excluding environmental losses.<sup>90</sup>

A unique illustration, therefore, should be discussed: the 1993 Lugano Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (Lugano Convention), adopted by the Council

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<sup>87</sup> UN Doc. UNEP/GC/25/INF/15/Add.3, Draft Guidelines for the Development of National Legislation on Liability, Response Action and Compensation for Damage Caused by Activities Dangerous to the Environment, Governing Council of the United Nations Environment Programme, Nov. 26, 2008.

<sup>88</sup> *Ibid.*, p. 14.

<sup>89</sup> *Ibid.*, p. 20.

<sup>90</sup> Birnie and Boyle, *International Law and the Environment* pp. 93-94.

of Europe.<sup>91</sup> This convention has been viewed as an embodiment of the polluter pays principle,<sup>92</sup> as it establishes a common mechanism of strict liability for damage caused by dangerous activities or dangerous substances on the operator of the activity in question.<sup>93</sup> In its preamble, it has expressed the regards for “the desirability of providing for strict liability in this field taking into account the polluter pays principle.”<sup>94</sup> Within its liability mechanism, the liability is not limited in amount and to that extent reflects the polluter pays principle.<sup>95</sup> This is unlike other treaties developed under the IMO under which the loss is spread about.<sup>96</sup> Moreover, without any provision on additional compensation funds, this unlimited liability would be assured by compulsory insurance or other types of financial security.<sup>97</sup> The wide definition of “damage” covers not only injury to persons and property but also damage caused by impairment of the environment and the costs of preventive measures and further loss or damage caused by the preventive measures.<sup>98</sup> By the definition of “measures of reinstatement,”<sup>99</sup> the Lugano Convention paves the way for compensation of damage to the environment *per se*.<sup>100</sup> Even though this convention seems to establish an environmentally friendly liability mechanism, it is not welcome among European States and this thereby forms its weakness.<sup>101</sup> Consequently, such a liability mechanism has not come into force and this development gives a sign that breaking the limitations is not optimistic.

## **B. Liability and Compensation Mechanism on Marine Pollution under International Law**

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<sup>91</sup> Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, European Treaty Series-No. 150, Lugano, 21.VI.1993.

<sup>92</sup> Alan Boyle, “Globalising Environmental Liability: the Interplay of National and International Law,” *J. Env. L.* 2005, 17(1), 3-26, p. 8.

<sup>93</sup> *Ibid.*

<sup>94</sup> Preamble to the Lugano Convention.

<sup>95</sup> Alan Boyle, “Globalising Environmental Liability: the Interplay of National and International Law,” *op. cit.*, p. 8.

<sup>96</sup> See *infra* Section III.B.2 for the IMO Conventions.

<sup>97</sup> Alan Boyle, “Globalising Environmental Liability: the Interplay of National and International Law,” *op. cit.*, p. 8.

<sup>98</sup> Article 2.7 of the Lugano Convention.

<sup>99</sup> Article 2.8 of the Lugano Convention states “[m]easures of reinstatement” means any reasonable measures aiming to reinstate or restore damaged or destroyed components of the environment damaged or destroyed components of the environment, or to introduce, where reasonable, the equivalent of these components into the environment. Internal law may indicate who will be entitled to take such measures.

<sup>100</sup> Peter Ehlers, “Origins and Compensation of Marine Pollution-A Survey,” *op. cit.*, p. 120.

<sup>101</sup> Alan Boyle, “Globalising Environmental Liability: the Interplay of National and International Law,” p. 8, noting that due to certain changes in national tort law in the 1990s, European States hesitated to ratify this convention.

Since the 1970s, international legal system has reacted to the problem of marine pollution via two aspects: international environmental law and law of the sea. These two regimes both contain the concepts of establishing the liability and compensation mechanism. This section looks into the relevant provisions on establishing the liability and compensation mechanism under international law to view to what extent this mechanism is required under international law and how it reflects to the polluter pays principle.

## **1. International Environmental Law**

First of all, the regime of international environmental law does not explicitly deal with ocean issues. However, it contains some important principles under international declarations which impact the further development of the liability and compensation mechanism. Furthermore, by adopting enabling clauses, a number of multilateral environmental conventions on the basis of these principles require States to establish relevant national legislations and through cooperating to develop international law on the liability and compensation mechanism.

### **a. Principles in International Declarations**

The 1972 UN Conference on the Human Environment (UNCHE) in Stockholm and the 1992 UNCED in Rio de Janeiro established the milestone in developing international environmental law. The 1972 Stockholm Declaration on the Human Environment (Stockholm Declaration),<sup>102</sup> approved in the UNCHE, adopted important principles that are related to the subject of the environment. Similarly, the 1992 Rio Declaration on Environment and Development (Rio Declaration)<sup>103</sup> was adopted by consensus in the UNCED. It balances the priorities between developed and developing States with respect to the protection of the international environment which places greater legal significance than the Stockholm Declaration.<sup>104</sup> These two major international documents serve as the fundamental documents to discuss the liability and compensation mechanism on marine pollution.

Principle 22 of the 1972 Stockholm Declaration provides that the “States shall cooperate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction.”<sup>105</sup> As an implication, several

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<sup>102</sup> 1972 Stockholm Declaration on the Human Environment, UN Doc. A/CONF.48/14/Rev.1 (1972), 11 ILM 1416 (1972).

<sup>103</sup> 1992 Rio Declaration on Environment and Development, UN Doc. A/CONF.151/5/Rev.1 (1992), 31 ILM 874 (1992).

<sup>104</sup> Louis B. Sohn and John E. Noyes, *Cases and Materials on the Law of the Sea* (New York: Transnational Publishers, 2004), p. 670.

<sup>105</sup> Principle 22 of the 1972 Stockholm Declaration.

recommendations as its action plan were made to act in the area of marine pollution and several conventions in addressing marine pollution, e.g. 1973 International Convention for the Prevention of Pollution from Ships (MARPOL) were, therefore, adopted.<sup>106</sup> Furthermore, Principle 13 of the 1992 Rio Declaration reaffirms Principle 22 of the 1972 Stockholm Declaration and provides that “States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage” and that “States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.”<sup>107</sup> These two provisions urge States to legislate the liability and compensation mechanism for environmental damage both through (1) developing national law and (2) cooperating to develop international law.

### **b. Concepts under Customary International Law**

The question may be asked whether this requirement of building the liability and compensation mechanism is expressed in customary international law. In the 2006 Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities adopted by the International Law Commission (ILC),<sup>108</sup> the UN General Assembly reaffirms Principle 13 of the Rio Declaration,<sup>109</sup> and requires that efforts should be made to conclude specific global, regional or bilateral agreements in order to provide effective arrangements concerning compensation, response measures and international and domestic remedies.<sup>110</sup> The ILC still

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<sup>106</sup> For further discussion, see Rosalie P. Balkin, Some Future Developments in Liability and Compensation for Environmental Damage at Sea, in Myron H. Nordquist, John Norton Moore & Said Mahmoudi, *The Stockholm Declaration and Law of the Marine Environment* (The Hague: Kluwer Law International, 2003), pp. 437-454.

<sup>107</sup> Principle 13 of the 1992 Rio Declaration.

<sup>108</sup> In the late 1970s, the ILC already noticed the issues on State responsibility for harm to the environment, and began to study the topic of “International Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law.” In 1997, the ILC shifted the focus of its work on transboundary environmental harm, from the issues of international liability to the matters of prevention and cooperation. In 2001, a Draft Convention on the Prevention of Transboundary Harm from Hazardous Activities was adopted by the ILC. Louis B. Sohn and John E. Noyes, *Cases and Materials on the Law of the Sea*, op. cit., pp. 682-3.

<sup>109</sup> Preamble to the Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities.

<sup>110</sup> Principle 7 (Development of Specific International Regimes) of the Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities, states that:

“1. Where, in respect of particular categories of hazardous activities, specific global, regional or bilateral agreements would provide effective arrangements concerning compensation, response measures and international and domestic remedies, all efforts should be made to conclude such specific agreements. 2. Such agreements should, as appropriate, include

commented that the Stockholm Declaration and Rio Declaration, although both are not intended to have legally binding forces, they nonetheless express the aspirations and preferences of the international community.<sup>111</sup> It is also considered that these Declarations, being nonbinding soft-law instruments, contain very few principles which are, on the basis of customary international law, legally binding.<sup>112</sup> Only the principle of the prohibition of transboundary environmental harm to other States and in the areas outside the States' jurisdiction, based on Principle 21 of the Stockholm Declaration and Principle 2 of the Rio Declaration,<sup>113</sup> forms such acknowledged status of customary international law.<sup>114</sup> Indeed, there are still legal uncertainty existing in terms of the detailed and specific elements of building the liability and compensation mechanism. Thus, it is then deemed necessary to investigate whether or not international conventions provide more specific regulations.

### c. Enabling Clauses under International Conventions

In spite of the emphasis on the Stockholm Declaration and Rio Declaration, there are still no significant developments in the legal norms governing international liability and redress for environmental damage.<sup>115</sup> The concept of liability and compensation in the conventional provisions is hence built merely as an enabling clause.

For instance, with the objectives of the conservation of biological diversity, the sustainable use of the components of biological diversity and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources,<sup>116</sup> the Convention on Biological Diversity (CBD) was adopted in 1992 and entered into force in 1993. Although the issue of liability and redress, with regard to transboundary damage to biological diversity, was also one of the themes on the CBD negotiations, the negotiators were unable

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arrangements for industry and/or State funds to provide supplementary compensation in the event that the financial resources of the operator, including financial security measures, are insufficient to cover the damage suffered as a result of an incident. Any such funds may be designed to supplement or replace national industry-based funds.”

<sup>111</sup> Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities, with Commentaries, 2006, p. 142.

<sup>112</sup> Malgosia Fitzmaurice, *Contemporary Issues in International Environmental Law* (Glos: Edward Elgar Publishing 2009), p. 177; Alena Douhan, “Liability for Environmental Damage,” in Rüdiger Wolfrum ed., *Max Planck Encyclopedia of Public International Law* (Oxford: Oxford University Press, forthcoming), available at: <<http://www.mpepil.com>> (February 12, 2012), para. 9.

<sup>113</sup> It is derived from the Trail Smelter Case.

<sup>114</sup> Malgosia Fitzmaurice, *Contemporary Issues in International Environmental Law*, *op. cit.*, p. 177; Alena Douhan, “Liability for Environmental Damage,” *op. cit.*, para. 9; ICJ Advisory Opinion, Legality of the Threat or Use of Nuclear Weapons, 8 July 1996, ICJ Rep. 226, at 241-2, para. 29.

<sup>115</sup> CBD, “Programmes & Issues, Liability and Redress: About Introduction,” available at: <<http://www.cbd.int/liability/introduction.shtml>> (last visited on March 20, 2012).

<sup>116</sup> Article 1 of the CBD.

to reach any consensus on the details of the liability regime under the CBD and thereby postponed the consideration of such issue to a future date.<sup>117</sup> Consequently, Article 14.2 of the CBD merely states that “[t]he Conference of the Parties shall examine, on the basis of studies to be carried out, the issue of liability and redress, including restoration and compensation, for damage to biological diversity, except where such liability is a purely internal matter.”<sup>118</sup> This provision provides very little guidance regarding the issue of liability and redress. The progress of the Convention’s work on liability and redress continues, however, and Parties are still examining the issue.

Similarly, as a supplementary agreement to the CBD, the Cartagena Protocol on Biosafety to the CBD, adopted in 2000 and entered into force in 2003, is an international treaty regulating the movement of living modified organisms (LMOs) resulting from the movements of modern biotechnology from one country to another.<sup>119</sup> The negotiators were aware of the critical nature and urgency of the issue of liability and redress for damage that resulted from the transboundary movements of LMOs.<sup>120</sup> However, they were unable to reach any consensus regarding the details of a liability regime under the Cartagena Protocol.<sup>121</sup> Therefore, an enabling clause to this effect was included in the final text of the Protocol. Article 27 of the Protocol provides that “[t]he Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first meeting, adopt a process with respect to the appropriate elaboration of international rules and procedures in the field of liability and redress for damage resulting from transboundary movements of living modified organisms, analysing and taking due account of the ongoing processes in international law on these matters, and shall endeavour to complete this process within four years.”<sup>122</sup> On the basis of this provision, the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety (N-KL Supplementary Protocol) after six year of negotiations was adopted in 2010 and closed for signature with 51 signatories on March 8, 2012.

The N-KL Supplementary Protocol adopts an administrative approach to addressing appropriate response measures where there is damage or sufficient likelihood of damage to the conservation and sustainable use of biological diversity resulting from the transboundary movements of LMOs. Like its parent treaty, the Cartagena Protocol on Biosafety, the adoption of the N-KL Supplementary Protocol is seen as a function of preventing damage and as a measure of further confidence-building in the development and application of modern biotechnology. It advances the enabling environment

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<sup>117</sup> CBD, “Programmes & Issues, Liability and Redress: About Introduction,” op. cit.

<sup>118</sup> Article 14.2 of the CBD.

<sup>119</sup> CBD, “The Cartagena Protocol: About the Protocol,” available at: <<http://bch.cbd.int/protocol/background/>> (last visited on March 20, 2012).

<sup>120</sup> Ibid.

<sup>121</sup> Ibid.

<sup>122</sup> Article 27 of the Cartagena Protocol on Biosafety to the CBD.

for deriving maximum benefit from the potential of LMOs by providing rules for redress or response where there is damage or sufficient likelihood of damage, according to the precautionary approach.<sup>123</sup> It, taking into account Principle 13 of the Rio Declaration, also requires Contracting Parties to provide, in their respective domestic laws, for rules and procedures that address damage; to continue to apply relevant rules on civil liability and to address the elements of the civil liability, including damage, standard of liability, channelling of liability and right to bring claims.<sup>124</sup> This new environmental treaty can be considered of making significant contribution to developing a detailed set of rules on the liability and compensation mechanism.

Another example is the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention). In the 1980s, due to tightened environmental regulations, there were attempts to deposit hazardous wastes originating from industrialized countries in Africa and other parts of the developing world in lieu of proper waste disposal in the place of origin.<sup>125</sup> In response to a public protest, the Basel Convention was adopted in 1989 and entered into force in 1992.<sup>126</sup> It is the most comprehensive global environmental treaty on hazardous and other wastes with the objectives to protect human health and the environment against the adverse effects resulting from the generation, management, transboundary movements and disposal of hazardous and other wastes.<sup>127</sup> Regarding the liability and compensation mechanism, Article 12 of the Basel Convention states that “[t]he Parties shall co-operate with a view to adopting, as soon as practicable, a protocol setting out appropriate rules and procedures in the field of liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes and other wastes.”<sup>128</sup> In response, the Ad Hoc Working Group of Legal and Technical Experts was established and the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes

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<sup>123</sup> UN Secretariat of the Convention on Biological Diversity, Montreal, Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety, 2011, p. 1.

<sup>124</sup> Article 12 of the N-KL Supplementary Protocol.

<sup>125</sup> Ulrich Beyerlin and Jenny Grote Stoutenburg, “International Protection of Environment,” in Rüdiger Wolfrum ed., *Max Planck Encyclopedia of Public International Law*, op. cit., para. 63.

<sup>126</sup> UNEP, “Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Protocol on Liability and Compensation form Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal, Texts and Annexes,” 2011, available at:

<<http://www.basel.int/Portals/4/Basel%20Convention/docs/text/BaselConventionText-e.pdf>>

(last visited on March 20, 2012).

<sup>127</sup> UNEP and Basel Convention Secretariat, “The Basel Convention at a Glance...,” 2009, available at:

<<http://www.basel.int/TheConvention/Overview/20thAnniversary/tabid/1531/Default.aspx>>

(last visited on March 20, 2012).

<sup>128</sup> Article 12 of the Basel Convention.

and their Disposal (Basel Protocol) was adopted in the 5<sup>th</sup> Conference of the Parties (COP) in 1999. An interim arrangement to cover emergency situations until the entry into force of the Basel Protocol was also agreed on.<sup>129</sup> The Basel Protocol has been considered as one of the essential elements for the environmental sound management of hazardous wastes.<sup>130</sup> Based on Principle 13 of the Rio Declaration,<sup>131</sup> the Basel Protocol provides a comprehensive regime for civil liability as well as adequate and prompt compensation for damage resulting from the transboundary movement of hazardous wastes and other wastes, including incidents occurring as a result of illegal traffic.<sup>132</sup> The scope of “damage” in the Basel Protocol is wide.<sup>133</sup> The Basel Protocol applies strict liability with certain financial limits for the liability,<sup>134</sup> and fault-based liability without financial limit on liability.<sup>135</sup> However, as of March 20, 2012, the Basel Protocol has not yet entered into force.

Furthermore, as one of the first global conventions to protect the marine environment from human activities, the London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) was adopted in 1972 and entered into force in 1975.<sup>136</sup> It aims to promote the effective control of all sources of marine pollution and to take all practicable measures to prevent marine pollution by dumping of wastes and other matters.<sup>137</sup> Article X of the London Convention requires Contracting Parties to develop rules governing liability and dispute settlement.<sup>138</sup>

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<sup>129</sup> UNEP, “Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Protocol on Liability and Compensation form Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal, Texts and Annexes,” op. cit., p. 6.

<sup>130</sup> UNEP, *The Basel Convention: A Global Solution for Controlling Hazardous Wastes* (Geneva: UNEP, 1997), p. 19.

<sup>131</sup> Preamble to the Basel Protocol.

<sup>132</sup> UNEP, “Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Protocol on Liability and Compensation form Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal, Texts and Annexes,” op. cit., p. 6.

<sup>133</sup> Article 2.2(c) of the Basel Protocol.

<sup>134</sup> Articles 4 and 12.1 of the Basel Protocol.

<sup>135</sup> Articles 5 and 12.2 of the Basel Protocol.

<sup>136</sup> As of March 20, 2012, it has 87 Contracting States/Parties, according to IMO, “Status of Conventions Summary,”

<http://www.imo.org/About/Conventions/StatusOfConventions/Pages/Default.aspx> (last visited on March 20, 2012).

<sup>137</sup> IMO, “Out Work, Marine Environment, Special Programmes and Initiatives: London Convention and Protocol,” available at:

<http://www.imo.org/OurWork/Environment/SpecialProgrammesAndInitiatives/Pages/London-Convention-and-Protocol.aspx> (last visited on March 20, 2012).

<sup>138</sup> Philippe Sands and Paolo Galizzi eds., *Documents in International Environmental Law*, 2<sup>nd</sup> ed., Cambridge: Cambridge University Press, 2004), p. 243.

Two decades later, in order to further modernize the London Convention, the Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Protocol),<sup>139</sup> adopted in 1996 and entered into force in 2006, thereby replaced the London Convention with more restrictive provisions. The London Protocol represents a major change of approach to regulating the ocean dumping, as under the London Protocol, all dumping is prohibited, except for possibly acceptable wastes on the approved “reverse list.”<sup>140</sup> Article 15 of the London Protocol, regarding responsibility and liability, states that “[i]n accordance with the principles of international law regarding State responsibility for damage to the environment of other States or to any other area of the environment, the Contracting Parties undertake to develop procedures regarding liability arising from the dumping or incineration at sea of wastes or other matter.”<sup>141</sup> However, since in principle all dumping of hazardous materials are prohibited, Contracting Parties have decided that no responsibility and liability mechanism is necessary.<sup>142</sup>

Based on these examples, we can conclude that even though the need of the liability and compensation mechanism has been explicitly recognized in the drafting of multilateral environmental conventions, commitments to develop a more detailed mechanism has often been postponed to a later date,<sup>143</sup> e.g., to be considered in the drafting of protocols to a convention. Even though to negotiate this kind of protocol takes a long time, we still need to emphasize that a liability and compensation mechanism is essential for many reasons. For instance, this mechanism can promote compliance with international environmental standards and regulations. As it can repair the damage by shifting the external costs of environmental damage to the polluter, the liability and compensation mechanism can also serve as an instrument to implement the polluter pays principle.<sup>144</sup> As a result, this mechanism can also deter environmentally harmful activities and lead to greater investment in preventive measures.<sup>145</sup> Moreover, the liability and compensation mechanism is established to enforce the environmental standards and regulations more

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<sup>139</sup> As of March 20, 2012, it has 41 Contracting States/Parties, according to IMO, “Status of Conventions Summary,” op. cit.

<sup>140</sup> Annex 1 (Wastes or other matter that may be considered for dumping) to the London Protocol, Philippe Sands and Paolo Galizzi eds., *Documents in International Environmental Law*, op. cit., p. 267.

<sup>141</sup> Philippe Sands and Paolo Galizzi eds., *Documents in International Environmental Law*, op. cit., pp. 259-260.

<sup>142</sup> Louise Angélique de La Fayette, “Compensation for Environmental Damage in Maritime Liability Regimes,” in Andree Kirchner ed., *International Marine Environmental Law: Institutions, Implementation and Innovations* (The Hague: Kluwer Law International, 2003), pp. 231-235, at 232.

<sup>143</sup> CBD, “Programmes & Issues, Liability and Redress, About: Introduction,” available at: <<http://www.cbd.int/liability/introduction.shtml>> (last visited on March 20, 2012).

<sup>144</sup> Ibid.

<sup>145</sup> Ibid.

effectively via a protocol. On the contrary, some of these protocols may adopt strict liability with financial limits of the compensation, e.g. the Basel Protocol, which does not fully reflect the polluter pays principle and has not entered into force; some are not even adopted, e.g. the London Protocol.

## **2. International Law of the Sea**

Regarding the regime of international law of the sea, international norms are developed in both the UN Convention on the Law of the Sea and treaties developed under the auspices of the IMO.

### **a. UN Convention on the Law of the Sea**

The most comprehensive legal instrument in the regime of the law of the sea is the LOS Convention. Part XII of the LOS Convention, going far beyond the 1958 Geneva Conventions on the Law of the Sea,<sup>146</sup> is the first thorough framework of rules on the protection and preservation of the marine environment.<sup>147</sup> Under the LOS Convention, the “pollution of the marine environment” is defined as 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 follows:

- (1) harm to living resources and marine life,
- (2) hazards to human health,
- (3) hindrance to marine activities, including fishing and other legitimate uses of the sea,
- (4) impairment of quality for use of sea water and
- (5) reduction of amenities.<sup>148</sup>

This provision adopts an open definition, including all sources of marine pollution, from vessel-source pollution, pollution from land-based activities and from the atmosphere.<sup>149</sup> Furthermore, Part XII of the LOS Convention provides the rather generic provisions relating to cooperation on matters of marine environmental protection.<sup>150</sup> It is supplemented, based on different sources of marine pollution, by more specific articles addressing pollution from land-based sources,<sup>151</sup> pollution from seabed activities subject

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<sup>146</sup> The 1958 Geneva Conventions on the Law of the Sea include the Convention on the Territorial Sea and the Contiguous Zone, the Convention on the High Seas, the Convention on Fishing and Conservation of the Living Resources of the High Seas and the Convention on the Continental Shelf.

<sup>147</sup> Articles 192-237 of the LOS Convention.

<sup>148</sup> Article 1(4) of the LOS Convention.

<sup>149</sup> Donald R. Rothwell and Tim Stephens, *The International Law of the Sea* (Oxford: Hart Publishing, 2010), p. 342.

<sup>150</sup> Part XII, Section 2 of the LOS Convention (Global and Regional Cooperation).

<sup>151</sup> Article 207 of the LOS Convention.

to national jurisdiction,<sup>152</sup> pollution from activities in the deep seabed (the ‘Area’),<sup>153</sup> pollution by dumping,<sup>154</sup> pollution from vessels,<sup>155</sup> and pollution from or through the atmosphere.<sup>156</sup>

The foregoing articles, adopting the enabling clause, require States to adopt international rules and national legislation to prevent, reduce and control marine pollution.<sup>157</sup> This reflects the fact that the LOS Convention has a framework nature as an “umbrella convention” and that its provisions are of general nature and its implementation, hence, depends on specific operative regulations in other international agreements.<sup>158</sup> Therefore, the drafting of the LOS Convention incorporates by rule-reference the latest “generally accepted international rules, standards and recommended practices and procedures” established through the “competent international organizations” or general diplomatic conferences. In the cases of marine pollution, these are references to the international rules and standards adopted through global pollution control conventions and soft-law instruments under the auspices of the IMO and other competent international organizations.<sup>159</sup> Furthermore, various provisions of the LOS Convention<sup>160</sup> require States to “take account of,” “conform to,” “give effect to” or “implement” the relevant international rules and standards developed by or through the “competent international organization.”<sup>161</sup> These so-called international rules and standards are extensively referred to as “applicable international rules and standards,” “internationally agreed rules, standards, and recommended practices and procedures,” “generally accepted international rules and standards,” “generally accepted international regulations,” “applicable international instruments” or “generally accepted international regulations, procedures and practices” under the LOS Convention.<sup>162</sup>

More specifically, Article 210(4) of the LOS Convention requires States, acting especially through “competent international organizations or

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<sup>152</sup> Article 208 of the LOS Convention.

<sup>153</sup> Article 209 of the LOS Convention.

<sup>154</sup> Article 210 of the LOS Convention.

<sup>155</sup> Article 211 of the LOS Convention.

<sup>156</sup> Article 212 of the LOS Convention.

<sup>157</sup> Part XII, Section 5 of the LOS Convention (International Rules and National Legislation to Prevent, Reduce and Control Pollution of the Marine Environment).

<sup>158</sup> IMO Doc. LEG/MISC.6, “Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization,” op. cit., p. 8.

<sup>159</sup> Donald R. Rothwell and Tim Stephens, *The International Law of the Sea*, op. cit., pp. 343-4. Other competent international organizations are such as the International Atomic Energy Agency (IAEA). Regarding the relationship between the LOS Convention and IMO instruments, see infra Section II.B.2.

<sup>160</sup> Namely, Articles 21(4), 22(3), 23, 39(2), 41(4), 53(9), 60(5), 80, 94(3)-(5), 210(4), (6), 211(7), 216(1), 217(1)-(3), 218(1), (3), 219, 220(1), (2), (3), and 216(1) of the LOS Convention.

<sup>161</sup> IMO Doc. LEG/MISC.6, “Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization,” op. cit., p. 8.

<sup>162</sup> Ibid.

diplomatic conference,” to make effort to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control the pollution by dumping.<sup>163</sup> Article 211(5) of the LOS Convention provides that Coastal States, for the purpose of enforcement, may in respect of their exclusive economic zones (EEZ) adopt laws and regulations to prevent, reduce and control vessel-source pollution conforming to and give effects to “generally accepted international rules and standards established through the competent international organization or general diplomatic conference.”<sup>164</sup>

In order to safeguard against the excessive or inappropriate exercise of enforcement powers, Article 232 requires States to be liable for damage or loss attributable to them resulting from enforcement measures in cases that “such measures are unlawful or exceed those reasonably required in the light of available information.”<sup>165</sup> It also requires States to provide for recourse in their courts for actions in respect of such damage or loss.<sup>166</sup> Under Article 235, the provision on responsibility and liability, States bear the responsibility for “the fulfilment of their international obligations concerning the protection and preservation of the marine environment” and the liability “in accordance with international law.”<sup>167</sup> In order to deliver and ensure prompt and adequate compensation or other relief, States, on the one hand, are obliged to provide legal mechanisms relating to damage caused by marine pollution resulting from natural or juridical persons under their jurisdiction.<sup>168</sup> On the other hand, the LOS Convention also requires States to cooperate for enforcing existing international law and for further development of international law with respect to “responsibility and liability for the assessment of and compensation for damage and the settlement of related disputes, as well as, where appropriate, development of criteria and procedures for payment of adequate compensation, such as compulsory insurance or compensation funds.”<sup>169</sup> In other words, these provisions to a certain degree reflect the provisions of Principle 22 of the 1972 Stockholm Declaration and Principle 13 of the 1992 Rio Declaration.

However, among all sources of marine pollution, only the liability regime of vessel-source pollution has been established and considered as the only regime benefiting from this set of the LOS provisions.<sup>170</sup> The liability regime of vessel-source pollution has been mostly developed under the auspices of the IMO as analyzed below.

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<sup>163</sup> Article 210(4) of the LOS Convention.

<sup>164</sup> Article 211(5) of the LOS Convention.

<sup>165</sup> Article 232 of the LOS Convention.

<sup>166</sup> *Ibid.*

<sup>167</sup> Article 235(1) of the LOS Convention.

<sup>168</sup> Article 235(2) of the LOS Convention.

<sup>169</sup> Article 235(3) of the LOS Convention.

<sup>170</sup> Louise Angélique de La Fayette, “Compensation for Environmental Damage in Maritime Liability Regimes,” *op. cit.*, at 232.

## **b. Treaties Developed under the Auspices of the International Maritime Organization**

### **(1) Relationship between the LOS Convention and the International Maritime Organization**

The IMO<sup>171</sup> was established in 1948 by the Convention on the International Maritime Organization (Convention on the IMO).<sup>172</sup> It is the UN specialized agency with responsibility for the safety and security of shipping and prevention of maritime pollution.<sup>173</sup> Its tasks are carried out by its main bodies, including two main organs, the Assembly and Council, and the five main specialized Committees, namely the Maritime Safety Committee, Marine Environment Protection Committee (MEPC), Legal Committee, Technical Cooperation Committee and the Facilitation Committee.<sup>174</sup> In special reference to the marine environment, the MEPC, with the goal to prevent and control vessel-source pollution, was established in 1973 to act as IMO's senior technical body to coordinate the IMO's activities in dealing with relevant issues.<sup>175</sup>

IMO, on the basis of this structure, has adopted some fifty conventions and protocols and more than one thousand codes and recommendations.<sup>176</sup> This has two major meanings. First, only through this kind of world-wide applicable international legislation under the IMO can the conflicts between flag, coastal and port State jurisdictions be harmonized to promote the sea-borne international trade, in particular, those based on shipping.<sup>177</sup> Second, it reflects the trend that, after the Second World War, the power to elaborate and adopt treaties has been transferred to specialized UN agencies.<sup>178</sup>

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<sup>171</sup> The original name of the IMO was the Inter-Governmental Maritime Consultative Organization or IMCO, but the name was changed to IMO in 1982. IMO, "Brief History of IMO," available at: <<http://www.imo.org/About/HistoryOfIMO/Pages/Default.aspx>> (last visited on March 10, 2012).

<sup>172</sup> As of March 20, 2012, it has 170 Contracting States/Parties, according to IMO, "Status of Conventions Summary," op. cit.

<sup>173</sup> IMO, "Introduction to IMO," available at: <<http://www.imo.org/About/Pages/Default.aspx>> (last visited on March 10, 2012).

<sup>174</sup> IMO, "Structure of IMO," available at: <<http://www.imo.org/About/Pages/Structure.aspx>> (last visited on March 10, 2012).

<sup>175</sup> IMO, "Our Work: Marine Environment," available at: <<http://www.imo.org/OurWork/Environment/Pages/Default.aspx>> (last visited on March 10, 2012).

<sup>176</sup> IMO, "IMO, What it is" (London: IMO, 2009), p. 7.

<sup>177</sup> Agustín Blanco-Bazán, The Environmental UNCLOS and the Work of IMO in the Field of Prevention of Pollution from Vessels, in Andree Kirchner ed., *International Marine Environmental Law: Institutions, Implementation and Innovations* (The Hague: Kluwer Law International, 2003), pp. 31-47, at 32.

<sup>178</sup> *Ibid.*, p. 37.

On the basis of its objective provided under Article 1 of the Convention on the IMO,<sup>179</sup> the most important IMO conventions are International Convention for the Safety of Life at Sea (SOLAS), MARPOL, International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) and other major IMO conventions and protocols can be categorized into three groups as follows:<sup>180</sup> (1) conventions concerned with maritime safety;<sup>181</sup> (2) conventions concerned with the prevention of maritime pollution;<sup>182</sup> and (3) conventions concerned with

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<sup>179</sup> Article 1 of the Convention on the IMO states that the purposes of the IMO are:

“(a) To provide machinery for co-operation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning the maritime safety, efficiency of navigation and prevention and control of marine pollution from ships; and to deal with administrative and legal matters related to the purposes set out in this Article;

(b) To encourage the removal of discriminatory action and unnecessary restrictions by Governments affecting shipping engaged in international trade so as to promote the availability of shipping services to the commerce of the world without discrimination; assistance and encouragement given by a Government for the development of its national shipping and for purposes of security does not in itself constitute discrimination, provided that such assistance and encouragement is not based on measures designed to restrict the freedom of shipping of all flags to take part in international trade;

(c) To provide for the consideration by the Organization of matters concerning unfair restrictive practices by shipping concerns in accordance with Part II;

(d) To provide for the consideration by the Organization of any matters concerning shipping and the effect of shipping on the marine environment that may be referred to it by any organ or specialized agency of the United Nations;

(e) To provide for the exchange of information among Governments on matters under consideration by the Organization.”

<sup>180</sup> Other than the mentioned conventions, there are also conventions outside these major groups dealing with facilitation, tonnage measurement, unlawful acts against shipping and salvage, etc. IMO, “About IMO: Conventions,” available at: <http://www.imo.org/About/Conventions/Pages/Home.aspx> (last visited on March 10, 2012).

<sup>181</sup> This category consists of the following conventions and protocols: 1972 Convention on the International Regulations for Preventing Collisions at Sea (COLREG), 1965 Convention on Facilitation of International Maritime Traffic (FAL), 1966 International Convention on Load Lines (LL), 1979 International Convention on Maritime Search and Rescue (SAR), 1988 Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation (SUA) and Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms located on the Continental Shelf (and the 2005 Protocols), 1972 International Convention for Safe Containers (CSC), 1976 Convention on the International Maritime Satellite Organization (IMSO C), 1977 The Torremolinos International Convention for the Safety of Fishing Vessels (SFV), 1995 International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F), 1971 Special Trade Passenger Ships Agreement (STP) and 1973 Protocol on Space Requirements for Special Trade Passenger Ships.

<sup>182</sup> This category consists of the following conventions and protocols: 1969 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (INTERVENTION), 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LC) (and the 1996 London Protocol), 1990 International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), 2000

liability and compensation, in particular some regarding damage caused by pollution.<sup>183</sup>

This classification mainly reflects the relationship between the LOS Convention and IMO instruments,<sup>184</sup> as the LOS Convention incorporates, by rule-reference, the IMO instruments into its framework. Furthermore, the IMO as an institution of international cooperation is a platform to develop the liability and compensation mechanism. The following investigates the liability and compensation mechanism in the treaties relating to maritime pollution developed under the auspices of the IMO, most of which deals with oil pollution and other pollutants.

## **(2) Liability and Compensation for Damage from Oil Pollution and Hazardous and Noxious Substances**

This consists of four IMO Conventions, two of which are the treaty precedents of Articles 235(2) and (3) of the LOS Convention.<sup>185</sup> This means that during the third UN Conference on the Law of the Sea between 1973 and 1982, there were certain provisions in the IMO Conventions regulating States' obligations. These conventions require States to cooperate in the enforcement of the polluter pays principle in the field of liability and compensation for the loss, damage and the preventive measures.<sup>186</sup> These conventions also develop criteria and procedures for payment of adequate compensation and make

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Protocol on Preparedness, Response and Co-operation to pollution Incidents by Hazardous and Noxious Substances (OPRC-HNS Protocol), 2001 International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS), 2004 International Convention for the Control and Management of Ships' Ballast Water and Sediments and 2009 The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships.

<sup>183</sup> This category consists of the following conventions and protocols: 1969 International Convention on Civil Liability for Oil Pollution Damage (CLC), 1992 Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND 1992), 1971 Convention relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material (NUCLEAR), 1974 Athens Convention relating to the Carriage of Passengers and their Luggage by Sea (PAL), 1976 Convention on Limitation of Liability for Maritime Claims (LLMC), 1996 International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS) (and its 2010 Protocol), 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage (Bunkers Convention) and 2007 Nairobi International Convention on the Removal of Wrecks.

<sup>184</sup> The relationship between the LOS Convention and IMO instruments covers the following areas: safety of navigation, prevention and control of marine pollution, liability and compensation, technical cooperation and assistance for developing countries. IMO Doc. LEG/MISC.6, "Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization," Study by the Secretariat of the International Maritime Organization (IMO), September 10, 2008.

<sup>185</sup> International Convention on Civil Liability for Oil Pollution Damage and International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage.

<sup>186</sup> See *infra* paragraphs regarding the scope of the "pollution damage."

concrete reference to mechanisms of implementation, such as compulsory insurance and compensation funds.

### **(a) International Convention on Civil Liability for Oil Pollution Damage**

In order to ensure that adequate compensation is available to persons who suffer oil pollution damage resulting from maritime casualties involving oil-carrying ships, i.e., tankers, the International Convention on Civil Liability for Oil Pollution Damage (CLC Convention) was adopted in 1969 and enacted in 1975.<sup>187</sup> It was later replaced by 1992 Protocol, which was adopted in 1992 and enacted in 1996.<sup>188</sup>

The CLC Convention places the strict liability, subject to a number of specific exceptions, on the owner of the ship for the loss or damage from which the polluting oil escaped or was discharged and the costs of preventive measures and further loss or damage caused by preventive measures.<sup>189</sup> The owner, in principle the registered owner,<sup>190</sup> has the duty to prove in each case that any of the exceptions should in fact operate.<sup>191</sup> Nonetheless, its liability is limited, except the incident result from the actual fault or privity of the owner.<sup>192</sup> The CLC Convention also requires ships covered by it to maintain insurance or other financial security in sums equivalent to the owner's total liability for pollution damage.<sup>193</sup> Each Contracting State shall ensure its courts to consider actions for compensation.<sup>194</sup> In order to raise the compensation limits, several amendments were adopted in 1976, which entered into force in 1981, adopted in 1992, which entered into force in 1996, and then recently adopted in 2000, which entered into force in 2003.<sup>195</sup> The CLC Convention and Protocol provide the liability and compensation mechanism to ensure the payment of compensation for oil pollution damage. However, certain questions remained and the following convention is established.

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<sup>187</sup> IMO, International Convention on Civil Liability for Oil Pollution Damage, available at: <[http://www.imo.org/About/Conventions/ListOfConventions/Pages/International-Convention-on-Civil-Liability-for-Oil-Pollution-Damage-\(CLC\).aspx](http://www.imo.org/About/Conventions/ListOfConventions/Pages/International-Convention-on-Civil-Liability-for-Oil-Pollution-Damage-(CLC).aspx)> (last visited on March 10, 2012). As of March 20, 2012, it has 38 Contracting States/Parties, according to IMO, "Status of Conventions Summary," op. cit.

<sup>188</sup> As of March 20, 2012, the 1992 CLC Protocol has 127 Contracting States/Parties, according to IMO, "Status of Conventions Summary," op. cit.

<sup>189</sup> Articles I.6 and III.1 of the CLC Convention.

<sup>190</sup> Article I.3 of the CLC Convention.

<sup>191</sup> Article III.2 of the CLC Convention.

<sup>192</sup> Article V of the CLC Convention.

<sup>193</sup> Article VII of the CLC Convention.

<sup>194</sup> Article IX of the CLC Convention.

<sup>195</sup> IMO, "About IMO, Conventions, List of Conventions: International Convention on Civil Liability for Oil Pollution Damage (CLC)," available at: <[http://www.imo.org/About/Conventions/ListOfConventions/Pages/International-Convention-on-Civil-Liability-for-Oil-Pollution-Damage-\(CLC\).aspx](http://www.imo.org/About/Conventions/ListOfConventions/Pages/International-Convention-on-Civil-Liability-for-Oil-Pollution-Damage-(CLC).aspx)> (last visited on March 20, 2012).

**(b) International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage**

In order to relieve the burden of the owner of the ship placed by the CLC Convention and to provide additional compensation to the victims of pollution (damage in cases in which compensation under the CLC Convention was either inadequate or unobtainable), the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention) was adopted in 1971 and entered into force in 1978. It was later superseded by the 1992 Protocol, entered into force in 1996.<sup>196</sup>

The Fund is obliged to pay compensation to States and persons who suffer pollution damage. The Fund Convention is supplementary to the CLC Convention. These two conventions form the two-tier international compensation regime. The 1992 Protocol increased compensation amounts and established a separate 1992 International Oil Pollution Compensation (IOPC) Fund.<sup>197</sup> Later, in order to raise the maximum amount of compensation payable from the IOPC Fund for a single incident, the Amendments were adopted in 2000 and entered into force in 2003. In order to establish a supplementary fund, the new protocol was adopted in 2003 and entered into force in 2005.<sup>198</sup> This supplementary fund constitutes an additional, third tier of compensation. In addition, the International Group of P&I Clubs<sup>199</sup> has also introduced, on a voluntary basis, a compensation package consisting of two agreements, the Small Tanker Oil Pollution Indemnification Agreement (STOPIA) 2006 (STOPIA 2006), and the Tanker Oil Pollution Indemnification Agreement (TOPIA) 2006 (TOPIA 2006).<sup>200</sup>

In other words, the now so-called IOPC Funds, including three governing bodies, i.e. the 1971 Fund, 1992 Fund and the Supplementary Fund, provide compensation for oil pollution damage resulting from oil spills from tankers. Until 2011, there have been thirteen incidents involving the IOPC Funds, including *Vistabella*, 1991; *Aegean Sea*, 1992; *Iliad*, 1993; *Nissos Amorgos*, 1997; *Plate Princess*, 1997 under the 1971 Fund and *Erika*, 1999; *Prestige*, 2002; *Solar I*, 2006; *Volgoneft*, 2007; *Hebei Spirit*, 2007; *Incident in*

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<sup>196</sup> As of March 20, 2012, the 1992 Fund Protocol has 109 Contracting States/Parties, according to IMO, "Status of Conventions Summary," op. cit.

<sup>197</sup> For more information on the IOPC Funds, please refer to the website available at: <<http://www.iopcfund.org/>> (last visited on March 20, 2012). The IOPC Funds, Annual Report 2010 (London: IOPC Funds, 2010).

<sup>198</sup> As of March 20, 2012, the 2003 Fund Protocol has 28 Contracting States/Parties, according to IMO, "Status of Conventions Summary," op. cit.

<sup>199</sup> Explanatory note prepared by the Secretariat of the International Oil Pollution Compensation Funds, The International Regime for Compensation for Oil Pollution Damage, April 2012. A group of 13 mutual insurers that between them provide liability insurance for about 98% of the world's tanker tonnage.

<sup>200</sup> *Ibid.*, these contractually-binding agreements entered into force on 20 February 2006.

*Argentina*, 2007; *King Darwin*, 2008; *JS Amazing*, 2009 under the 1992 IOPC Fund.<sup>201</sup>

**(c) International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea**

The International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS Convention) was adopted in 1996.<sup>202</sup> Due to an insufficient number of ratifications of the HNS Convention, a Protocol was adopted in 2010 to address practical problems that had prevented States from ratifying the original Convention.<sup>203</sup> The HNS Convention regulates the compensation for damage caused by the carriage of hazardous and noxious substances (HNS) by sea and aims to provide adequate, prompt and effective compensation for loss or damage to persons, property and the environment arising from the carriage of HNS by sea. It applies to damage by contamination of the environment caused in the territorial sea and EEZ,<sup>204</sup> to death, injury and damage to property irrespective of the place where they occur and to the costs of preventive measures and further loss or damage caused by preventive measures.<sup>205</sup> Likewise, referring to the model established in the CLC Convention and Fund Convention, the HNS Convention also established a compensation Fund (the HNS Fund) as a supplementary mechanism.<sup>206</sup>

**(d) International Convention on Civil Liability for Bunker Oil Pollution Damage**

In order to ensure that the availability of adequate, prompt, and effective compensation to persons who suffer pollution damage caused by spills of oil, when carried as fuel in ships' bunkers, the International Convention on Civil Liability for Bunker Oil Pollution Damage (Bunkers

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<sup>201</sup> IOPC Funds, Incidents Involving the IOPC Funds 2011 (London: IOPC Fund, 2011).

<sup>202</sup> IMO, "Our Work, Legal Affairs: HNS Convention," available at: <<http://www.imo.org/OurWork/Legal/HNS/Pages/HNSConvention.aspx>> (last visited on March 20, 2012).

<sup>203</sup> Ibid. As of March 20, 2012, the HNS Convention and HNS Protocol have not yet been into force, according to IMO, "Status of Conventions Summary," op. cit.

<sup>204</sup> Article 3 of the 2010 HNS Convention.

<sup>205</sup> Article 1(6) of the 2010 HNS Convention.

<sup>206</sup> IMO, An Overview of the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 2010 (The 2010 HNS Convention), available at:

<<http://www.imo.org/OurWork/Legal/HNS/Documents/HNS%20Overview.pdf>> (last visited on March 20, 2012).

Convention) was adopted in 2001 and entered into force in 2008.<sup>207</sup> What should be clarified is that the CLC Convention and Protocol deals with the spills of oil carried as cargo.<sup>208</sup> The Bunkers Convention extends this scope to cover pollution damage caused by oil carried as fuel on ships; thus, leads to contamination of the environment resulting from the escape or discharge of bunker oil from the ship as well as the costs of preventive measures and further loss or damage caused by preventive measures.<sup>209</sup>

The Bunkers Convention also imposes the strict liability on the owner of the ship,<sup>210</sup> while the scope of the owner of the ship is extended from only the registered owner to “the registered owner, bareboat charterer, manager and operator of the ship.”<sup>211</sup> It also sets limits of liability whose extent relies on the Convention on Limitation of Liability for Maritime Claims.<sup>212</sup> The registered owner of the ship is also required to maintain compulsory insurance or other financial security to cover liability under the Bunkers Convention.<sup>213</sup>

### **(3) Liability for Other Pollution Damage**

In order to require States to remove shipwrecks that may have the potentially adverse effects on the safety of lives, goods and property at sea, as well as the marine environment, the Nairobi International Convention on the Removal of Wrecks was adopted in 2007.<sup>214</sup> The Convention requires the owner of ship to be liable for the costs of locating, marking and removing ships and wrecks, as well as maintaining compulsory insurance or other financial security to cover liability under the convention.<sup>215</sup>

#### **c. Analysis**

These conventions and protocols on marine pollution establish the liability and compensation mechanism that mostly deals with the vessel-source pollution. What we have observed is that the efforts of IMO as a practice of international cooperation to legislate and establish this mechanism are significant. Yet, such efforts are mainly limited to pollution from vessels and not to other pollutants which may cause more adverse effects on the marine environment. This would result from the function and objective of the IMO to

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<sup>207</sup> As of March 20, 2012, the Bunkers Convention has 64 Contracting States/Parties, according to IMO, “Status of Conventions Summary,” op. cit.

<sup>208</sup> Article 1(1) of the CLC Convention and Article 1(1) of the CLC Protocol.

<sup>209</sup> Article 1.9 of the Bunkers Convention.

<sup>210</sup> Article 3 of the Bunkers Convention.

<sup>211</sup> Article 1.3 of the Bunkers Convention.

<sup>212</sup> Article 6 of the Bunkers Convention.

<sup>213</sup> Article 7 of the Bunkers Convention.

<sup>214</sup> As of March 20, 2012, the Draft Wreck Removal Convention has only obtained five signatories and has not yet been into force, according to IMO, “Status of Conventions Summary,” op. cit.

<sup>215</sup> Articles 10 and 12 of the Nairobi International Convention on the Removal of Wrecks.

ensure the safety and security of shipping and to prevent marine pollution by ships.

Nonetheless, other problems still exist. First, the acceptance of these provisions on liability and compensation mechanism still highly depends on the States' will. This can be demonstrated in the cases of the HNS Convention and Protocol as well as the Nairobi International Convention on the Removal of Wrecks. Also, the liability and compensation mechanisms mentioned above have three features:<sup>216</sup> (1) adopt the non-fault liability, i.e. strict liability;<sup>217</sup> (2) channel the liability to the owner of the ship; (3) limit the liability at relatively low levels meaning that the owner of ship cannot realistically be held liable for the full costs of the accident, as the costs would be shared by the industry and States through insurance.<sup>218</sup> This third feature is not common amongst all environmental liability mechanisms.<sup>219</sup> Hence, this leads to the questions of whether (1) this type of mechanism still complies with the polluter pays principle and (2) the scope and specific concepts of the polluter pays principle should have diverse applications to different regimes.

As we now can recognize that implementing the polluter pays principle helps improve the effectiveness of environmental standards, the questions regarding the third feature should also be considered from this aspect. It means the amount of the limits of liability is not the central consideration. Also, the liability and compensation mechanism is a means to implement the polluter pays principle. As long as this mechanism can help enforce the environmental standards, to what extent it implements the polluter pays principle should not be viewed rigorously then. This, nevertheless, finally raises the question once again of the non-legally-binding feature of the polluter pays principle.

What needs to be emphasized is that, on the basis of Principle 22 of the Stockholm Declaration, Principle 13 of the Rio Declaration and Article 235(3) of the LOS Convention, States are required not only to cooperate to develop the liability and compensation mechanism for marine pollution under international law, but also to develop national law to deal with this issue.

Moreover, the pollution from seabed activities subject to national jurisdiction which is the major public concerns for the marine pollution has not been much addressed by international regulations and mostly been relying

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<sup>216</sup> Alan Boyle, *Globalising Environmental Liability: the Interplay of National and International Law*, op. cit., pp. 6-8.

<sup>217</sup> Ibid., noting the reasons to adopt the non-fault liability as follow: "(1) It relieves courts of the difficult task of setting appropriate standards of reasonable care and plaintiffs of the burden of proving breach of those standards in relatively complex and technical industrial processes or installations. (2) It would be unjust and inappropriate to make plaintiffs shoulder a heavy burden of proof where risks of an activity are acceptable only because of its social utility. This argument is particularly strong in cases where the injured victims are in countries which derive no benefit from the activity which causes the damage. (3) The risk of very serious or widespread damage, despite its low probability, places most of the activities covered by these conventions in the ultra-hazardous category."

<sup>218</sup> Ibid., p. 8.

<sup>219</sup> Ibid.

on the national laws, even though Article 208(5) of the LOS Convention has required States to “establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment” through “competent international organizations or diplomatic conference” and to re-examine these rules, standards and recommended practices and procedures from time to time as deemed necessary.<sup>220</sup> Unlike the international regime to deal with the vessel-source pollution, which at least has adopted certain conventions and mechanisms through the IMO, the international regime to deal with the pollution from seabed activities subject to national jurisdiction is still absent and can learn from the experiences of the international regime of the vessel-source pollution to develop “rules, standards and recommended practices and procedures” through diplomatic conference. In this case, the concepts of the polluter pays principle and the liability and compensation mechanism can be taken into account in the international regime to deal with the pollution from seabed activities subject to national jurisdiction.

#### **IV. Conclusion**

In order to enforce environmental standards, particularly in regards to marine pollution, the establishment of the liability and compensation mechanism is provided under some significant international documents, in particular Principle 13 of the 1992 Rio Declaration and Principle 22 of the 1972 Stockholm Declaration. Based on this requirement, some multilateral environmental conventions also adopt the enabling clauses to further develop this mechanism which relies on the international cooperation among States. For instance, the LOS Convention incorporates into its framework by rule-reference the IMO instruments that establish the liability and compensation mechanism. This mechanism is also one of the components of the polluter pays principle endorsed by Principle 16 of the 1992 Rio Declaration. This development in international law demonstrates that both the polluter pays principle and the liability and compensation mechanism have gained certain legal effects.

On the contrary, in facing the extension and seriousness of marine pollution, the polluter pays principle, when adopted as part of the liability and compensation mechanism, has some inherent flexibility. These constitute the limitations of the polluter pays principle. If, in the future, the polluter pays principle also gains legal effectiveness as a general principle of international environmental law, and helps to enforce environmental standards, the liability and compensation mechanism should then better integrate this principle into the general law’s further development.

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<sup>220</sup> Article 208(5) of the LOS Convention.

Moreover, unlike the vessel-source pollution, the pollution from seabed activities subject to national jurisdiction lacks international regulations. In order to preserve the marine environment, the development of international regime to deal with vessel-source pollution can be referred to as a model, in certain respects, in efforts to address the problem of the pollution from seabed activities subject to national jurisdiction—especially so, as the LOS Convention requires States to establish international rules in this regard. It may therefore be concluded that the function of the polluter pays principle and the liability and compensation mechanism should be incorporated so far as feasible into the regime that regulates the pollution from seabed activities subject to national jurisdiction.