# Towards a harmonised European Regime of Civil Liability for Damage arising from Marine Pollution

# Béatrice SCHÜTTE<sup>1</sup>

#### Résumé

Les activités humaines en mer peuvent causer des dommages non seulement à l'environnement mais aussi aux tiers. La responsabilité civile en cas de pollution marine au niveau de l'Union européenne n'est prévue dans son cadre juridique que dans de rares cas. Les concepts traditionnels du droit de la responsabilité ne sont pas suffisants, spécifiquement, pour déterminer la loi nationale applicable au titre des règles de droit international privé. La recherche de la loi applicable peut échouer car il n'est pas certain que le droit privé soit applicable au-delà des eaux territoriales. La directive sur la responsabilité environnementale élaborée en réaction aux accidents des navires pétroliers Prestige et Erika est en fait un régime administratif, plutôt qu'un cadre juridique propre de responsabilité civile. Compte tenu de la critique faite sur cette directive, il convient d'examiner les perspectives d'établissement d'un cadre juridique quant à la responsabilité civile, et s'il y a déjà des règles qui pourraient d'ores et déjà servir de bases de réflexion. D'une part, il faut considérer la directive européenne consacrée à la responsabilité civile, et de l'autre l'application du principe pollueur-payeur. Les conventions internationales dédiées à la pollution de l'environnement marin, et le principe de responsabilité civile qui s'y rattache viennent compléter le cadre applicable à de telles situations.

#### Abstract

Human activities can cause damage not only to the environment itself but also to third parties. Liability for marine environmental pollution incidents and damage arising therefrom is only scarcely regulated on EU level. Traditional tort law concepts are insufficient and even the determination of an applicable national law by means of the conflict of law rules might fail as the applicability of private law beyond territorial waters is not clear. The Environmental Liability Directive which was meant to be the EU's legislative reaction to the accidents of the oil tankers Prestige and Erika is in fact an administrative regime rather than a civil liability framework. Given the criticism that was brought forward against the directive, it is worth examining what an actual framework on civil liability could look like and if there are already existing rules one could build upon. To be considered are the Environmental Liability Directive as it is, the Polluter Pays Principle as well as international conventions addressing marine pollution and liability.

## 1. Introduction

The increasing exploitation of the seas in different ways bears the danger of causing damage not only to the marine environment per se but also to individuals and legal entities. The protection of the marine environment made its way on the international agendas from the 1960s onwards. Accidents of ships carrying oil as cargo and the pollution of the sea resulting therefrom got international attention. One important milestone was the 1972 Stockholm Declaration on the Human Environment: States agreed on fostering further development of international law regarding liability and compensation for the victims of pollution and other environmental damage. Still, a set of generally binding applicable rules on environmental liability could never be established. Instead, sectoral and regional agreements as well as national laws and court decisions evolved.<sup>2</sup>

Nowadays, liability for pollution damage is treated in several international conventions, in the EU Environmental Liability Directive (ELD) as well as in national laws. Particularly the international

<sup>&</sup>lt;sup>1</sup> Doctor of law (Aarhus University, Denmark), visiting postdoctoral researcher at the ERC Human Sea Program, Université de Nantes.

<sup>&</sup>lt;sup>2</sup> Orlando, Emanuela *From Domestic to Global? Recent Trends in Environmental Liability from a Multi-level and Comparative Law Perspective* Review of European, Comparative and International Environmental Law Vol. 24 (2015), p. 289.

frameworks lack provisions on civil liability in relation to individuals and legal entities suffering damage as a consequence of pollution of the marine environment. The number of frameworks makes regulation also very fragmented.

As regards liability for pollution of the maritime environment in particular, respectively the environment in general, different legal frameworks already exist both on EU level as well as on international level. Relevant in this field are also general principles of international law. The EU is party to more than 40 multilateral environmental agreements.

Talking about harmonizing civil liability for damage arising from marine pollution, one must consider the EU Environmental Liability Directive and question whether it already sufficiently harmonises this legal matter. Civil liability in this context does not mean state liability, but it refers primarily to the responsibility of private and commercial actors.

A harmonised regime on EU level can also help to achieve the "good environmental status" of EU marine waters as envisaged in the Marine Strategy Framework Directive and to meet the objectives of the EU Integrated Maritime Policy which include the promotion of economic development while ensuring coexistence of concurring uses as well as the health of the marine ecosystems.<sup>3</sup>

Classical tort law concepts are not appropriate for damage arising from pollution. With regard to damage to the environment, the question is who can claim damages and to which extent. Another problem is the assessment of damages, i.e. the cost of marine creatures, plants or biodiversity. The Environment is not a protected interest in national tort laws, even though the European Court of Human Rights acknowledged in several decisions a right to a healthy and protected environment.<sup>4</sup>

For consequential damage caused to persons and property, differing national tort laws do not necessarily offer a fair and just solution, particularly in cases of transboundary pollution damage. Furthermore, it can be difficult for the injured party to prove particularly the chain of causation, i.e. that the damage suffered is an actual consequence of the pollution of the marine environment. In many cases, the damage is also purely economic, yet many national tort laws are reluctant when it comes to the recoverability of pure economic loss.

# 2. Principles and Frameworks on Environmental Liability

In this section, the most relevant international frameworks and principles will be examined with regard to questions on environmental liability. On EU level, worth mentioning are the Environmental Liability Directive, the Ship-source Pollution Directive, the Marine Strategy Framework Directive and the Offshore Safety Directive. One must furthermore consider the Polluter-Pays Principle as well as several international conventions such as UNCLOS, the IMO Conventions and regional agreements like the OSPAR Convention or the Barcelona Convention.

# 2.1. The Polluter-Pays Principle

An overarching principle of environmental liability is the Polluter-Pays Principle (PPP). Originally, the PPP was an economic principle dealing with the internalisation of the costs of pollution.<sup>5</sup> It has its origins in the early 1970s and was for the first time completely formulated by the OECD Council in 1972. Some earlier conventions already showed ambitions to create principles of liability for hazardous activities. The PPP was implemented into the EU Treaties in 1986 in the course of the Single European Act and is nowadays enshrined in article 191 (2) TFEU as a pillar of EU environmental policy. For the purpose of EU law, the PPP was never precisely defined and there are various definitions in international environmental law<sup>6</sup>.

<sup>&</sup>lt;sup>3</sup> Koivurova, Timo A Note on the EU's Integrated Maritime Policy Ocean Development & International Law, Vol. 40 (2009), p. 176.

<sup>&</sup>lt;sup>4</sup> Trébulle, François-Guy *Quelle prise en compte pour le préjudice écologique après l'Erika?* Environnement n° 3, Mars 2013, p. 20.

<sup>&</sup>lt;sup>5</sup> Cohendet et al *Droit de l'Environnement*, p. 197; De Sadeleer, Nicolas *Environmental Principles – From Political Slogans to Legal Rules*, p. 22.

<sup>&</sup>lt;sup>6</sup> De Sadeleer, Nicolas *The Polluter Pays Principle in EU law – Bold Case Law and Poor Harmonization*, p. 407.

The principle as such as well as 'polluter' and 'pollution' are formulated and defined in different ways. For instance, according to the 1992 Rio Declaration, the polluter should 'in principle' bear the cost of pollution. Yet, the Rio Declaration addresses the states regarding the creation of liability rules protecting the victims of pollution and does not contain specific rules. 8

Polluters have been defined as those who directly or indirectly damage the environment or those who create conditions leading to such damage.9 They are liable bear the costs of the measures necessary to restore the environment. In the 1970s, the OECD defined polluters as people who engaged in activities that contaminated the environment. In this regard, it was indifferent whether pollution was induced by industrial emissions surpassing legally binding thresholds or other – legal or illegal – polluting activities. 10 Back then, it referred more to preventive measures and the question whether and to what extent it should be used for cases of pollution damage was just emerging. 11 Under the scope of the third EC Environmental Action Programme, the principle was seen as an incentive to reduce pollution. 12 According to the ECJ in Mesquer, polluters are those who contribute to the risk of pollution by means of the activity they engaged in.<sup>13</sup> Still, it may be difficult to identify the actual polluter, both in cases of diffuse pollution and when a specific installation is involved. In case of pollution from a specific installation, it can be either the operator, the licensee and his representatives or even the manufacturer if the installation is defective. Diffuse pollution describes cases where either different sources contribute to the pollution or one source causes different kinds of pollution.<sup>14</sup> As regards the definition of pollution, there are different approaches. According to one approach, emissions are to be considered as pollution when thresholds are surpassed. The other approach considers the actual presence of environmental damage as pollution. The latter is thus based on actual, measurable impacts.15

The meaning of the PPP as such is open to interpretation especially with regard to the scope of application and the nature and extent of costs included. And exactly for leaving a margin of discretion, the principle has been criticised. Back in 1972, according to an OECD recommendation, the PPP is meant to help allocating the costs of pollution prevention. The OECD further recommends not to assist polluters in bearing the costs of pollution control. Under the scope of EU law, the principle empowers the institutions to implement rules and measures according to which natural or legal persons causing pollution are liable to compensation. In a recommendation from 1991, the OECD Council stated that "sustainable and economically efficient development of environmental resources required not only the internalisation of the costs of pollution prevention and control but also of the damage itself".

The Polluter-Pays Principle is not a liability rule. But it has been used to justify the implementation of strict liability rules in terms of to environmental liability, for instance in the proposal for a directive on

<sup>&</sup>lt;sup>7</sup> Schwartz, Priscilla *The Polluter Pays Principle* in Fitzmaurice, Malgosia; Ong, David M.; Merkouris, Panos (eds.) *Research Handbook on International Environmental Law*, Elgar 2010, p. 243.

<sup>&</sup>lt;sup>8</sup> Viñuales, Jorge E. *The Rio Declaration on Environment and Development: A Commentary*, principle 13.

<sup>&</sup>lt;sup>9</sup> De Sadeleer, Nicolas Environmental Principles – From Political Slogans to Legal Rules, p. 28.

<sup>&</sup>lt;sup>10</sup> Schwartz, Priscilla *The Polluter Pays Principle* in Fitzmaurice, Malgosia; Ong, David M.; Merkouris, Panos (eds.) *Research Handbook on International Environmental Law*, Elgar 2010, p. 247.

<sup>&</sup>lt;sup>11</sup> The Polluter Pays Principle: OECD Analyses and Recommendations, Paris 1992, pp. 6/7.

http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=OCDE/GD(92)81&docLanguage=En

<sup>&</sup>lt;sup>12</sup> De Sadeleer, Nicolas *Environmental Principles – From Political Slogans to Legal Rules*, p.35.

<sup>&</sup>lt;sup>13</sup> Mossoux, Youri *L'application du principe du pollueur-payeur à la gestion du risque environnemental et à la mutualisation des couts de la pollution* Lex Electronica Vol. 17 (2012), p. 2 ; See ECJ Commune de Mesquer, C-188/07.

<sup>&</sup>lt;sup>14</sup> De Sadeleer, Nicolas *Environmental Principles – From Political Slogans to Legal Rules*, p. 41.

<sup>&</sup>lt;sup>15</sup> De Sadeleer, Nicolas Environmental Principles – From Political Slogans to Legal Rules, pp. 38, 39.

<sup>&</sup>lt;sup>16</sup> De Sadeleer, Nicolas Environmental Principles – From Political Slogans to Legal Rules, p. 25.

<sup>&</sup>lt;sup>17</sup> De Sadeleer, Nicolas *The Polluter Pays Principle in EU law – Bold Case Law and Poor Harmonization*, p. 412.

<sup>&</sup>lt;sup>18</sup> De Sadeleer, Nicolas *Environmental Principles – From Political Slogans to Legal Rules*, p. 37.

liability for damage caused by waste, the 1993 Green Paper on remedying environmental damage and 2000 White Paper on Environmental Liability.<sup>19</sup>

Liability rules can be seen as a mean of implementing the Polluter-Pays Principle.<sup>20</sup>

# 2.2. The EU Environmental Liability Directive

The ELD entered into force in 2004. In 2013, with the adoption of the Offshore Safety Directive, its scope of application was extended to marine waters. The fact that the original version did not apply to marine waters is surprising since it was also meant to be a reaction on oil spills like that of the Erika and Prestige. Member States are responsible to prevent damage to water, land and biodiversity by appropriate measures or to restore it effectively if the impairment has already occurred. The title of the directive suggests at first sight that questions concerning liability for environmental pollution are sufficiently covered.

The ELD contains legal terms that are reminiscent of civil liability frameworks but it is primarily an administrative law regime.<sup>22</sup> It implements the PPP but without mentioning details as regards the "how". According to article 1 it is the purpose to establish a framework of environmental liability based on the polluter-pays principle, but without clarifying it further.

The directive also contains a number of reservations and defences. Furthermore, it lacks a remedy for individuals to file a damages claim, it is explicitly excluded in article 3. Instead, according to article 12 of the directive, natural or legal persons are only entitled to submit requests to the competent authority to take actions. Thus, injured parties are depending on the respective national laws. This may result in questions regarding jurisdiction and the law applicable. Several points in the directive have been subject to criticism. It was questioned whether the framework was an effective harmonisation at all. As opposed to the Directive, the White Paper still contained a civil liability regime.<sup>23</sup>

According to criticism brought forward against the directive, it does not even effectively harmonize environmental liability throughout the EU as several elements of the liability regime have been left to be decided by the Member States such as the scope or defences. That means that the Member states could either implement stricter rules or take advantage of their discretion in order to give it less impact as it only establishes minimum harmonization. The lack of a claim for individuals has been criticized for being incompatible with the provisions of the Aarhus Convention concerning access to justice.<sup>24</sup>

Another deficit of the ELD is that the polluter is not liable in case damage was caused by an event authorized by applicable national laws. In this context, it would have to be clearly defined, which infringements to environment may be authorized. In addition to that, the ELD is subsidiary to international law, which poses an obstacle to further harmonization of the rules and going beyond the limited compensation systems provided by international treaties.

The drafting of the ELD was obviously influenced by the similar US framework CERCLA<sup>25</sup>.<sup>26</sup> Regarding liability for damage caused by pollution of the marine environment, the notions of water damage and biodiversity damage regulated in the ELD are of particular relevance.

Another problematic point is the option given to the Member States in article 8, section 4 to exempt operators from liability for emissions or events that have been explicitly authorised. If a Member State implements this option, the operator is only liable for accidents.<sup>27</sup>

<sup>&</sup>lt;sup>19</sup> Cohendet et al *Droit de l'Environnement*, p. 197; De Sadeleer, Nicolas *Environmental Principles – From Political Slogans to Legal Rules*, p. 30.

<sup>&</sup>lt;sup>20</sup> De Sadeleer, Nicolas *Environmental Principles – From Political Slogans to Legal Rules*, p. 30.

<sup>&</sup>lt;sup>21</sup> http://ec.europa.eu/environment/legal/liability/white paper.htm.

Bergkamp, Lucas; Goldsmith, Barbara *The EU Environmental Liability Directive – A Commentary*, pp. 37/38.

<sup>&</sup>lt;sup>23</sup> Betlem, Gerrit *Torts, a European Ius Commune and the Private Enforcement of Community Law* Cambridge Law Journal Vol 64 (2005), p. 127.

<sup>&</sup>lt;sup>24</sup> Betlem, Gerrit *Torts, a European Ius Commune and the Private Enforcement of Community Law* Cambridge Law Journal Vol 64 (2005), p. 127.

<sup>&</sup>lt;sup>25</sup> Comprehensive Environmental Response, Compensation, and Liability Act, enacted in 1980.

<sup>&</sup>lt;sup>26</sup> Orlando, Emanuela *From Domestic to Global? Recent Trends in Environmental Liability from a Multi-level and Comparative Law Perspective* Review of European, Comparative and International Environmental Law Vol. 24 (2015) p. 295

Wennerås, Pål A progressive interpretation of the Environmental Liability Directive JEEP 2005, p. 262.

Furthermore, the narrow scope of the directive has been criticised. Environmental damage includes only damage to protected species and natural habitats, water damage and land damage.<sup>28</sup> It only applies to a limited number of professional activities pointed out in Annex III, among them the handling of dangerous substances, discharge of substances into inland surface water and into groundwater or transport of dangerous or polluting goods.<sup>29</sup> For the purpose of liability for marine environmental pollution, most relevant are water damage and damage to protected species and natural habitats. According to the Directive, water damage is "any damage that significantly adversely affects the ecological, chemical and/or quantitative status and/or ecological potential, as defined in the Water Framework Directive 2000/60, of the waters concerned".<sup>30</sup> Protected species and natural habitats are further defined in the Birds Directive and the Habitats Directive.<sup>31</sup>

Recent reports made by the EU Commission and the Parliament criticise a lack of certainty in key definitions and the narrowness of the scope.<sup>32</sup> Several Member States transposed the directive in a "patchy and superficial way".<sup>33</sup>

Another point of criticism was the so-called significance threshold. This means that under the scope of the ELD, incidents are only being qualified as serious when they cause death or serious injuries, with no reference to the effects on the environment. This is paradox particularly because injured parties, i.e. individuals and legal entities, have no claim under the scope of the directive.<sup>34</sup>

It is interpreted and applied differently in the Member States and impairs a uniform application of the Directive as a whole throughout the EU.<sup>35</sup>

In a resolution from 2017, the EU Parliament observes that the effectiveness of the ELD strongly varies from Member State to Member State.<sup>36</sup> In the same resolution, the Parliament called for a thorough review of the Directive also with regard to the notion of environmental damage and the relating criteria.<sup>37</sup>

## 2.3. Other EU Directives

Other EU Directives to mention with regard to marine pollution the Marine Strategy Framework Directive, the Offshore Safety Directive and the Directive on Ship-Source Pollution and on the Introduction of Penalties for Infringements.

The Marine Strategy Framework Directive aims at achieving good environmental status for EU marine waters by 2020.<sup>38</sup> Its ecosystem-based approach shall help protecting habitats, resources and biodiversity.<sup>39</sup> Good environmental status means that ecosystems are fully functioning and resilient to environmental change caused by human activity, biodiversity does not decline as a consequence of human activity and the discharge of substances into marine waters as a consequence of human activities does not cause pollution effects.<sup>40</sup> As the marine environment keeps being exposed to pollution from different sources, it is questionable whether the good environmental status will indeed be achieved by 2020.

32 https://www.globalelr.com/2017/11/european-parliament-calls-for-tougher-environmental-liability-rules/

5

<sup>&</sup>lt;sup>28</sup> Bergkamp, Lucas; Goldsmith, Barbara *The EU Environmental Liability Directive – A Commentary*, p. 57.

http://www.europarl.europa.eu/cmsdata/116969/juri-envi-hearing-environmental-liability-cassotta-speech.pdf,

p. 2. http://ec.europa.eu/environment/legal/liability/pdf/Summary%20ELD.pdf

<sup>&</sup>lt;sup>31</sup> Directives 92/43/EEC and 79/409/EEC.

<sup>&</sup>lt;sup>33</sup> Report on the application of Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (the 'ELD') 11 October 2017, p. 9.

<sup>34</sup> http://ec.europa.eu/environment/legal/liability/pdf/eld-2018/EP's%20ELD%20Resolution.pdf, p. 4.

<sup>35</sup> http://ec.europa.eu/environment/legal/liability/pdf/eld-2018/EP's%20ELD%20Resolution.pdf, p. 10.

<sup>&</sup>lt;sup>36</sup> http://ec.europa.eu/environment/legal/liability/pdf/eld-2018/EP's%20ELD%20Resolution.pdf, p. 10.

<sup>&</sup>lt;sup>37</sup> http://ec.europa.eu/environment/legal/liability/pdf/eld-2018/EP's%20ELD%20Resolution.pdf, p. 12.

<sup>&</sup>lt;sup>38</sup> http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index en.htm

<sup>&</sup>lt;sup>39</sup> Borja, Angel; Elliot, Mike; Carstensen, Jacob; Heiskanen, Anna-Stiina; van de Bund, Wouter Marine management – Towards an integrated implementation of the European Marine Strategy Framework and the Water Framework Directives Marine Pollution Bulletin Vol. 60 (2010), p. 2175.

 $<sup>^{40}\,</sup>http://ec.europa.eu/environment/marine/good-environmental-status/index\_en.htm$ 

The Offshore Safety Directive was enacted in 2013 as a reaction on the Deepwater Horizon blowout.<sup>41</sup> In its article 7, liability is addressed by making reference to the ELD and by stating that Member states must ensure the financial liability of the licensee. As stated above, the ELD does not contain an actual civil liability framework, and thus neither does the OSD.

The Directive on Ship-Source Pollution<sup>42</sup> was first enacted in 2005 and amended in 2009 and it implements international standards on vessel-source pollution into EU law. Member States are free to enact stricter standards though. The Ship-Source-Pollution Directive applies to any kind of ship, except war ships, irrespective of its flag. The territorial scope covers the Member States' territorial seas and EEZ and the High Seas. Any discharge performed intentionally, recklessly or negligently are considered infringements.<sup>43</sup> Yet, none of these directives contains actual liability rules.

## 2.4. UNCLOS

The United Nations Convention on the Law of the Sea (UNCLOS) is the overarching framework concerning the seas. At the same time, it is one of the most influential environmental agreements that have been concluded, counting more than 160 contracting parties.<sup>44</sup> A significant part of what had been customary law for most of the time has been codified in the convention<sup>45</sup>.

As regards marine pollution, part XII of the convention deals with the protection and preservation of the marine environment. According to art. 192, states are obliged to protect and to preserve the marine environment. Further on, art. 194 obliges the contracting parties to prevent, reduce and control pollution of the marine environment from any source, and they are also obliged to cooperate on this matter and to elaborate international rules and standards<sup>46</sup>. The obligation to prevent, reduce and control pollution of the marine environment is elaborated in a more detailed way concerning different sources of pollution, including the obligation to elaborate corresponding laws.<sup>47</sup> Article 235 refers to the state parties' responsibility to fulfil their international obligations regarding the protection and preservation of the marine environment and states that they shall be liable in accordance with international law. Furthermore, they must, according to the national legal systems, ensure the availability of compensation for damage caused by the pollution of the marine environment by individuals and legal entities. However, liability for pollution damage is not regulated in detail in the convention. Individuals and legal entities are in art. 235 referred to as polluters but not as potential injured parties. In general, the addressees of the framework are the state parties and not individuals or legal entities. The fact that people hardly play any role in the Convention also gave rise to criticism.<sup>48</sup>

## 2.5. IMO Conventions

The International Maritime Organisation (IMO) has adopted a number of conventions dealing with marine pollution, such as the CLC Convention, the Bunker Oil Convention, MARPOL and the HNS Convention.

# 2.5.1. CLC/IOPC Fund Convention

The CLC Convention was adopted in 1969 in the wake of the Torrey Canyon<sup>49</sup> disaster. Parallel to the CLC Convention, the Convention on the IOPC Fund was adopted, establishing a fund to pay compensation to victims when under the CLC scheme the available compensation is not sufficient. A compulsory insurance system allows damages claims to be raised directly against the insurer.<sup>50</sup>

<sup>47</sup> See articles 207-212 UNCLOS.

6

<sup>&</sup>lt;sup>41</sup> Consideration 5 of the Directive.

<sup>&</sup>lt;sup>42</sup> Directive 2005/35/EC of the European Parliament and of the Council of 7 September 2005 on ship-source pollution and on the introduction of penalties for infringements

<sup>&</sup>lt;sup>43</sup> Farmer, A. M. (ed.) Manual of European Environmental Policy, p. 4.

<sup>44</sup> Sands, Philippe/Peel, Jacqueline *Principles of International Environmental Law*, p. 350.

<sup>&</sup>lt;sup>45</sup> Beurier, Jean-Pierre (ed.) *Droits Maritimes*, p. 81.

<sup>&</sup>lt;sup>46</sup> See art. 197 UNCLOS.

<sup>&</sup>lt;sup>48</sup> Papanicolopulu, Irini *The Law of the Sea Convention: No Place for Persons?* The International Journal of Marine and Coastal Law, Vol 27 (2012), p. 868.

<sup>&</sup>lt;sup>49</sup> The Torrey Canyon, a Liberian oil tanker, broke in two off the coast of Cornwall in 1967, spilling more than 100,000 tons of crude oil into the sea and polluting both the British and the French coast. See Oil Spill, Encyclopaedia Britannica via https://www.britannica.com/science/oil-spill#ref1085819

<sup>&</sup>lt;sup>50</sup> Maes, Frank (ed.) Marine Resource Damage Assessment, pp. 59, 60.

Article 3 of the convention, places strict liability upon the ship owner for damage caused by the escape of oil.<sup>51</sup> Liability is capped in relation to the tonnage of the ship. For the current 2000 Protocol, the caps have been raised as compared to the 1969 and 1992 version. Following the repeated raise of the liability caps, it has also been questioned whether liability should be capped at all. The ship owners may have less incentives to take measures of accident prevention.<sup>52</sup>

The convention applies to damage caused on the territory, the territorial sea and the EEZ of state parties. Pursuant to the 1992 Protocol, the polluter may be held liable for ecological damage, however, their liability is limited to "reasonable costs". Since there is no market price for the components of the environment, it will be difficult to assess, to which extent restoration costs are reasonable. The Fund has in some cases refused to pay for environmental damage. <sup>53</sup> The Convention as such does not cover pure economic loss, but under the scope of the IOPC Funds Executive it has become common practice to pay compensation for it.<sup>54</sup>

## **2.5.2.** MARPOL

MARPOL is the main international convention concerning vessel-source pollution. The framework aims at combatting intentional pollution of the marine environment as well as accidental discharges of oil and other harmful substances. The notion of harmful substances is very wide and includes "any substance which, if introduced into the sea, is likely to create hazards to human health to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea". Yet, some substances are further specified in the six annexes to the convention and include oil, noxious liquid substances in bulk, harmful substances carried in packaged form, sewage and garbage, and annex VI refers to air pollution from ships. The term of discharge is to be understood in a wide context. Contracting parties are obliged to prohibit and sanction violations of the rules of the convention and its annexes.

However, sanction in this context is to be understood in a punitive sense so that no liability regime can be derived from MARPOL.

## 2.5.3. HNS Convention

The 1996 HNS Convention is now valid in the 2010 protocol. The convention is not yet in force, as the required 12 ratifications have not been achieved.

The EU council encourages and authorizes the Member States to access the convention in a decision from 2017 – except for the aspects concerning judicial cooperation in civil matters.<sup>55</sup> Five EU Member States have ratified the HNS Convention, and three non-EU countries.

The HNS Convention regulates pollution resulting from the transport of hazardous and noxious substances by sea. It is based on the concept of the CLC Convention. Hazardous and noxious substances are determined in accordance with other conventions and frameworks, for instance MARPOL, the International Maritime Dangerous Goods Code or the Code of Safe Practice for Dangerous Goods. The ship owner is strictly liable for any damage caused related to the carriage of hazardous and noxious substances.

## 2.5.4. Bunker Oil Convention

<sup>51</sup> Sands, Philippe/Peel, Jacqueline *Principles of International Environmental Law*, p. 746.

<sup>&</sup>lt;sup>52</sup> Faure, Michael; Wang, Hui *The International Regimes for the Compensation of Oil-Pollution Damage: Are they Effective?* Review of European, Comparative and International Environmental Law, Vol.12 (2003), p. 249.

Faure, Michael; Wang, Hui The International Regimes for the Compensation of Oil-Pollution Damage: Are they Effective? Review of European, Comparative and International Environmental Law, Vol.12 (2003), p. 246.

<sup>&</sup>lt;sup>54</sup> Soyer, Baris; Trettenborn, Andrew (eds.) *Pollution at Sea: Law and Liability*, p. 6.

<sup>55</sup> Council Decision (EU) 2017/769 on the ratification and accession by Member States, in the interest of the European Union, to the Protocol of 2010 to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, with the exception of the aspects related to judicial cooperation in civil matters

http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0769&from=EN

<sup>&</sup>lt;sup>56</sup> Soyer, Baris; Trettenborn, Andrew (eds.) *Pollution at Sea: Law and Liability*, p. 26.

The Bunker Oil Convention from 2001 is almost identical to the CLC Convention in its 1992 Protocol. Before its implementation, there was a legal lacuna concerning marine pollution through oil spills from ship's bunkers other than tankers.<sup>57</sup> The ship owner is strictly liable for pollution damage caused by bunker oil on board or originating from the ship. However, the notion of a ship is wider under the Bunker Oil Convention than it is under the scope of the CLC regime.

## 2.5.5. The 1992 London Convention

The London Convention was adopted in 1992 and deals with the prevention of marine pollution through dumping of waste and other matter at sea. It was one of the first international conventions concerning the protection of the marine environment from human activities. The convention implements a system of black list and grey list as classifying the types of waste. The disposal of waste on the black list is forbidden whilst the disposal of grey-list waste requires a special permit.<sup>58</sup>

## 2.6. Regional frameworks

In addition to the international conventions, there are a number of conventions applying to delimited maritime areas and addressing the problem of marine environmental pollution. Worth mentioning in this context are the OSPAR Convention, the Barcelona Convention, the Helsinki Convention.

#### 2.6.1. OSPAR Convention

The OSPAR Convention on the Protection of the Marine Environment of the North-East Atlantic aims at preventing and eliminating pollution in order to protect marine ecosystems and human health.<sup>59</sup> The framework attempts to regulate all sources of marine pollution, namely pollution from land-based sources, dumping and incineration, and offshore sources. Pollution shall be eliminated and impaired marine environment shall be restored.<sup>60</sup>

## 2.6.2. Barcelona Convention

The Barcelona Convention was adopted under the scope of the UNEP Regional Seas Programme and applies to the Mediterranean Sea. The aims of the convention include, among others, the assessment and control of marine pollution, fostering sustainable management of natural marine and coastal resources, the protection of the marine environment and coastal zones, prevention and reduction of pollution, and elimination of both land-based and sea-based pollution. The framework includes different protocols on dumping, offshore activities, hazardous wastes and pollution from land-based sources. In article 27 of the offshore protocol, state parties are obliged to cooperate with the aim of establishing an appropriate framework on civil liability for damage caused by offshore activities.

### 2.6.3. Helsinki Convention

The Helsinki Convention deals with the protection of the marine environment of the Baltic Sea. Contracting parties are the Baltic Sea coastal states and the European Union. The framework applies to the sea as such, the seabed and also to inland waters, the latter aiming at the reduction of land-based pollution. The Helsinki Convention is supplemented by the HELCOM Baltic Sea Action Plan, which, among others, shall ensure the regional implementation of the Marine Strategy Framework Directive. The convention contains some fundamental principles and obligations, for instance concerning notification and consultation, environmental impact assessment and reporting and exchange of information. Contracting parties are also obliged to implement the precautionary principle and the Polluter Pays Principle. In art. 2 of the Helsinki Convention, important terms like pollution, ship, dumping, incident, harmful substances or hazardous substances are defined. Questions

<sup>&</sup>lt;sup>57</sup> Sands, Philippe/Peel, Jacqueline *Principles of International Environmental Law* p. 755.

<sup>58</sup> http://www.imo.org/en/ourwork/environment/lclp/pages/default.aspx

<sup>59</sup> http://ec.europa.eu/environment/marine/international-cooperation/regional-sea-conventions/ospar/index en.htm

<sup>60</sup> Sands, Philippe/Peel, Jacqueline *Principles of International Environmental Law*, pp. 360/361.

 $<sup>^{61}\</sup> http://ec.europa.eu/environment/marine/international-cooperation/regional-sea-conventions/barcelona-convention/index\_en.htm$ 

<sup>62</sup> http://ec.europa.eu/environment/marine/international-cooperation/regional-sea-conventions/helcom/index\_en.htm

<sup>&</sup>lt;sup>63</sup> http://ec.europa.eu/environment/marine/international-cooperation/regional-sea-conventions/helcom/index\_en.htm.

<sup>&</sup>lt;sup>64</sup> Sands, Philippe/Peel, Jacqueline *Principles of International Environmental Law*, p. 363.

concerning liability are not treated in the convention, the framework is of rather preventive character. The closest point to liability is the parties' obligation to implement the Polluter Pays Principle.

## 2.7. Lugano Convention

The Lugano Convention was adopted by the Council of Europe in 1993.

It implements a strict liability regime for so-called dangerous activities and applies to both environmental and third-party damage. As opposed to the ELD, the Lugano Convention grants broader access to justice, not only for individuals but also to environmental groups provided that they operate in accordance with the respective national laws. To enter into force, at least three states must ratify the convention, which has not happened yet. Some academics doubt whether it ever will enter into force arguing that after the enactment of the ELD it has become obsolete. The latter is questionable as the ELD does not implement an actual liability regime like the Lugano convention does, covering both third-party damage and damage to the environment and giving individuals a claim which the ELD does not.

Criticism regarding the Lugano Convention referred to its provisions as having a too wide scope and the notion of environmental damage being too unspecific.<sup>68</sup>

## 2.8. Private International Law – Applicability of Rome II Regulation

On EU level, the Rome II Regulation applies to transnational torts and helps to determine the law applicable to such cases, provided that no international convention is applicable.<sup>69</sup> Pollution of the marine environment can constitute a so-called maritime tort. Maritime torts differ from classical torts as at sea it is more probable to have also an already existing contractual relationship between the parties involved (internal tort) than a noxious event without any previous relationship (external tort).<sup>70</sup> Yet, marine pollution is one of the cases where an external tort is more likely.

Environmental damage is regulated by article 7 of the Rome II Regulation. The provision then redirects to the general rule of article 4 according to which the law applicable is that of the country in which the damage occurs. Article 7 allows the injured party to choose also the law of the country where the event giving rise to the damage occurred.

The difficult point about maritime torts, particularly when vessels are involved, is to determine the place where the harmful event occurred as a vessel is a moving object. And the determination of the law applicable becomes even more complicated, when the tort is committed outside the territorial waters, i.e. within the EEZ or on the continental shelf as it is rather unclear if and to what extent private law is applicable in those areas.<sup>71</sup> Thus, Rome II might not help determining a law applicable to damage caused as a consequence of an oil spill or a discharge of other harmful substances from a vessel. Furthermore when the place of the event giving rise to the damage occurred is hard, or even impossible, to determine, the injured party actually has no choice of law.

A follow-up question to ask is whether it may be a suitable alternative at least for the cases of vessel-source pollution to apply the law of the flag state. However, many of the most risk-prone vessels are registered under flags of convenience, i.e. flags of states with very low standards in general which are not very likely to help an injured party to obtain adequate compensation.

Thus, the Rome II Regulation can only be of use when an incident occurs in territorial waters.

# 2.9. Summary

The only international frameworks that take consequential damage suffered by individuals and legal entities into consideration are the CLC Convention, the 1993 Lugano Convention and the HNS

<sup>65</sup> Bergkamp, Lucas Liability and Environment: Private and Public Aspects of Civil Liability, p. 29.

<sup>66</sup> Bergkamp, Lucas Liability and Environment: Private and Public Aspects of Civil Liability, pp. 31/32.

<sup>&</sup>lt;sup>67</sup> Hedemann-Robinson, Martin Enforcement of European Union Environmental Law: Legal Issues and Challenges, p. 594.

<sup>&</sup>lt;sup>68</sup> Hedemann-Robinson, Martin Enforcement of European Union Environmental Law: Legal Issues and Challenges, p. 594.

<sup>&</sup>lt;sup>69</sup> Siehr, Kurt The Rome II Regulation and Specific Maritime Torts: Product Liability, Environmental Damage, Industrial Action RabelsZ Vol. 74 (2010), p. 146.

<sup>&</sup>lt;sup>70</sup> Basedow, Jürgen Rome II at Sea – General Aspects of Maritime Torts, RabelsZ Vol. 74 (2010), pp. 119, 120.

<sup>&</sup>lt;sup>71</sup> Basedow, Jürgen Rome II at Sea – General Aspects of Maritime Torts, RabelsZ Vol. 74 (2010), p. 120.

Convention, yet the two latter ones are not in force. In this context, one could ask whether and to what extent these conventions could serve as an example for an overarching European regime.

The Environmental Liability Directive and the Offshore Safety Directive address liability but without containing an actual liability framework. The addressees of these directives are Member States or competent authorities. Most of the international conventions examined also address mostly the state parties and either oblige them to implement rules on civil liability or the Polluter Pays Principle. Enactment of rules by contracting parties or Member States will not automatically ensure that these rules will be harmonised and thus grant the same level of protection for potentially injured parties.

# 3. Properties of a harmonised regime

When thinking of harmonised rules on pollution damage and consequential damage, the main question is what such a regime should or could include. This ranges from the sources of pollution to be covered, whether liability should be strict or fault-based, which kinds of damage should be recoverable and who should bear the burden of proof. One must also consider different implementation options, for instance, whether it is favourable to have regional frameworks or an overarching one for the EU or whether there should be one comprehensive regime or separated corresponding ones according to the types of pollution.

## 3.1. EU-regime vs regional regimes

Another question to deal with is whether it is favourable to enact a framework covering the entire EU or whether one should establish rules according to the regions. The advantage of the latter would be the possibility to take into account the natural and geographical particularities of the respective regions, as for instance for the Mediterranean Sea there will be different factors to take into account than there are for the Baltic Sea or the EU territorial waters in the Atlantic Ocean. But also in a directive one could implement provisions concerning particular regions only. Furthermore, regional agreements seem most appropriate for bodies of water that are almost closed and have only little exchange of water with other marine areas. An argument brought forward in favour of regional agreements is that the further conventions reach with regard to their territorial scope, the weaker they are concerning

compliance and effectiveness.<sup>72</sup> Frameworks covering smaller regions may be used as basis for a corresponding more global one if they prove successful, thus one might take a bottom-up approach. A global approach has the advantage that it increases legal certainty on international level, which can be particularly relevant for multinational companies.

# 3.2. Strict Liability or Fault Liability

An important point is whether a harmonised framework should feature strict liability or fault liability. An argument often brought forward in favour of strict liability is that its deterrent effect is stronger and thus there are more incentives for a potential wrongdoer to prevent damage from occurring. Within a strict liability regime, costs of pollution will become a kind of production costs which may motivate the operator to optimise any processes.<sup>73</sup>

A fault liability system would have the effect that polluters only pay when they have violated certain standards of care. And in general, fault must be proven by the claimant which can be hard, if not impossible. In addition to that, under a fault liability system the operator would not be responsible for damage caused for instance by accidental discharge of a substance when all legal standards have been met. In addition to that, it has been argued that the Polluter Pays Principle calls for a strict liability regime.<sup>74</sup>

## 3.3. Recoverable damages

<sup>72</sup> Balsiger, Jörg; Vandeveer, Stacy D., *Navigating Regional Environmental Governance* Global Environmental PoliticsVol. 12 (2012), p. 3.

<sup>73</sup> Wilde, Mark *The EC Commission's White Paper on Environmental Liability: Issues and Implications* Journal of Environmental Law Vol. 13 (2001), pp. 27/28.

<sup>74</sup> De Sadeleer, Nicolas *Environmental Principles – From Political Slogans to Legal Rules*, p. 51.

With regard to a European liability regime, one must also consider the question which kinds of damage should be recoverable under its scope. Two questions are particularly relevant in this context: The assessment of damages and the question if and to what extent pure economic loss should be recoverable.

# 3.3.1. Assessment of damages

Considering damage to the environment, the difficult point will be the assessment of damages.

The polluter himself will usually not able to restitute the status quo ante, i.e. restore the impaired environment as if the damage had never occurred, so he will most likely be held liable to pay the costs of restoration. Here, the key point will be how to determine the price of lost biodiversity which has no market price. In this context, the CLC Convention for instance refers to "reasonable cost". However; the definition of "reasonable" is about as difficult as the determination of a monetary value of impaired environment. Following the tort liability principle of *resitutio in integrum* which would also best correspond to the purpose of protection and restoration of the environment, only the full or best possible restoration seems reasonable.

# 3.3.2. Recoverability of pure economic loss

General tort law is rather reluctant when it comes to the recoverability of pure economic loss. Pure economic loss is a financial disadvantage suffered without the prior infringement of one of the protected interests, i.e. life, body, health, freedom, personality rights or property, in tort law.<sup>75</sup> In most legal systems, there must either be a pre-existing special relationship between the tortfeasor and the injured party, or the tortfeasor must act intentionally or immorally for the victim to have a damages claim in this regard.

Pure economic loss is not uncommon as a consequence of a pollution incident. Impaired fish stocks can lead to a loss of income among fishermen and polluted coastal waters and beaches can disturb tourism and thus cause pure economic loss to those involved in the business. The earnings and livelihood of those people can be at risk. There are some relevant rules for the establishment of liability for pure economic loss. Having regard to marine pollution, one must particularly consider dangerousness and obviousness and knowledge. Dangerousness refers to the fact that the more dangerous an activity, the more diligence is required. These considerations have been made referring to statements<sup>76</sup>, but nevertheless one can easily transfer this to hazardous – or potentially hazardous – activities such as exploration and exploitation of resources in the seabed and its subsoil or the transport of oil and other hazardous and noxious substances. As regards the obviousness and knowledge, 'liability for pure economic loss is more acceptable if the financial interest was known by the defendant'. 77 For the purpose of pollution of the marine environment, one may say those engaging in activities that are likely to endanger the environment are aware of the possible consequences, since in the past there have been enough harmful incidents. Finally, 'liability for pure economic loss is more reasonable the more clearly the defendant acted in his own economic interest<sup>78</sup>. This is obviously the case for all commercial actors engaging in activities that are potentially dangerous to the marine environment. According to the practice under the scope of the IOPC fund, such loss is recoverable under certain conditions like a sufficiently close link.

# 3.4. Burden of proof

When dealing with questions concerning liability, one must also refer to the burden of proof. As a general rule, the claimant must prove the points he raises against the defendant which is usually damage, causation and – depending on whether liability is strict or not – fault. In the field of damage

<sup>&</sup>lt;sup>75</sup> Van Dam, Cees European Tort Law, p. 208; Koziol, Helmut Recovery for Economic Loss in the European Union, Arizona Law Review Vol. 48, p. 872.

<sup>&</sup>lt;sup>76</sup> Koziol, Helmut *Recovery for Economic Loss in the European Union*, Arizona Law Review Vol. 48, pp. 883/884.

<sup>&</sup>lt;sup>77</sup> Koziol, Helmut Recovery for Economic Loss in the European Union, Arizona Law Review Vol. 48, p. 884.

<sup>&</sup>lt;sup>78</sup> Koziol, Helmut *Recovery for Economic Loss in the European Union*, Arizona Law Review Vol. 48, p. 885.

arising from marine environmental pollution, it will be usually very difficult for the injured party to prove the tortfeasor's fault and sometimes even the chain of causation.

Thus, one should consider a reversed burden of proof in order to protect the victim being the weaker party at the same time.

# 4. Concluding Remarks

As opposed to what might be suggested by the Environmental Liability Directive, liability for damage arising from marine environmental pollution is not harmonised on EU level. Therefore, it is still considerable to implement a regime that actually harmonises civil liability in this context. Some of the frameworks presented above contain basics that can be further elaborated to be part of such a framework. Particularly the Polluter Pays Principle is a good starting point. It has been constantly developed further throughout the decades but requires further clarification.

Also international frameworks such as the CLC convention or the HNS Convention and the Lugano Convention – even if the two latter ones are not in force contain rules that one can build upon. Individuals and legal entities suffering damage must have a claim against the polluter. Important components are strict liability as well as the recoverability of pure economic loss which was developed in the practice of the IOPC Fund. One should reconsider the EU Commission White Paper on Environmental Liability as adopted in 2000 which contained civil liability rules. A liability framework as envisaged in this article should not only be applicable to territorial waters but at least also to the EEZ and the continental shelf.

The EU has 68000 kilometres of coast line – three times as long as the coast of the United States. Almost half of the population of the EU lives less than 50 km from the coast. More than 70 million people live less than 500 metres from the shore. Over 60% of people going on vacation choose destinations at the coast. The number of potential injured parties and the potential economic loss that could happen in case of a major pollution incident should be an incentive for the responsible parties to work towards an actual civil liability framework for damage arising from pollution of the marine environment.

## References

Balsiger, Jörg; Vandeveer, Stacy D., *Navigating Regional Environmental Governance*, Global Environmental Politics Vol. 12 (2012), pp. 1-17

Basedow, Jürgen, Rome II at Sea – General Aspects of Maritime Torts, RabelsZ Vol. 74 (2010), pp. 118-138

Bergkamp, Lucas; Goldsmith, Barbara, *The EU Environmental Liability Directive – A Commentary* Oxford 2013 Bergkamp, Lucas, *Liability and Environment: Private and Public Aspects of Civil Liability*, Oxford 2001

Betlem, Gerrit, Torts, a European Ius Commune and the Private Enforcement of Community Law Cambridge Law Journal Vol 64 (2005), pp 126-148

Beurier, Jean-Pierre (ed.) Droits Maritimes 3rd. Ed. Dalloz 2015

Borja, Angel; Elliot, Mike; Carstensen, Jacob; Heiskanen, Anna-Stiina; van de Bund, Wouter, *Marine management – Towards an integrated implementation of the European Marine Strategy Framework and the Water Framework Directives* Marine Pollution Bulletin Vol. 60 (2010), pp. 2175-2186

Cohendet, Marie-Anne; Prieur, Michel; Makowiak, Jessica; Bétaille, Julien; Delzangles, Hubert; Steichen, Pascale, *Droit de l'environnement* 7th ed. Dalloz 2016

De Sadeleer, Nicolas, *The Polluter Pays Principle in EU law – Bold Case Law and Poor Harmonization*, Pro Natura: Festskrift Til H. C. Bugge, Oslo, Universitetsforlaget, pp. 405-419, 2012

De Sadeleer, Nicolas, Environmental Principles – From Political Slogans to Legal Rules, Oxford 2002

Farmer, A. M. (ed.), Manual of European Environmental Policy Routledge, London 2012

Faure, Michael; Wang, Hui, *The International Regimes for the Compensation of Oil-Pollution Damage: Are they Effective?* Review of European, Comparative and International Environmental Law, Vol.12 (2003), pp. 242-253 Hedemann-Robinson, Martin, *Enforcement of European Union Environmental Law: Legal Issues and Challenges*, Oxford 2006

Koivurova, Timo, A Note on the EU's Integrated Maritime Policy Ocean Development & International Law, Vol. 40 (2009), pp. 171-183

\_

<sup>&</sup>lt;sup>79</sup> https://www.eea.europa.eu/de/themes/coast sea/intro.

Koziol, Helmut, Recovery for Economic Loss in the European Union, Arizona Law Review Vol. 48, (2006), pp. 871-895

Lindhout, Petra E./van den Broek, Berthy, The Polluter Pays Principle: Guidelines for Cost Recovery and Burden Sharing in the Case Law of the European Court of Justice Utrecht Law Review Vol. 10 (2014), pp. 46-59

Maes, Frank (ed.), Marine Resource Damage Assessment – Liability and Compensation for Environmental Damage, Springer 2005

Mossoux, Youri, L'application du principe du pollueur-payeur à la gestion du risque environemental et à la mutualisation des couts de la pollution Lex Electronica Vol. 17 (2012), available at https://www.lex-electronica.org/articles/vol17/num1/lapplication-du-principe-du-pollueur-payeur-a-la-gestion-du-risque-environnemental-et-a-la-mutualisation-des-couts-de-la-pollution/

Orlando, Emanuela, From Domestic to Global? Recent Trends in Environmental Liability from a Multi-level and Comparative Law Perspective Review of European, Comparative and International Environmental Law, Vol. 24 (2015), pp. 254-263

Papanicolopulu, Irini, *The Law of the Sea Convention: No Place for Persons?* The International Journal of Marine and Coastal Law, Vol 27 (2012) pp. 867-874

Sands, Philippe/Peel, Jacqueline, Principles of International Environmental Law 3rd ed. Cambridge 2012

Schwartz, Priscilla, *The Polluter Pays Principle* in Fitzmaurice, Malgosia; Ong, David M.; Merkouris, Panos (eds.) *Research Handbook on International Environmental Law*, Elgar 2010

Siehr, Kurt, The Rome II Regulation and Specific Maritime Torts: Product Liability, Environmental Damage, Industrial Action RabelsZ Vol. 74 (2010), pp. 139-153

Soyer, Baris; Trettenborn, Andrew (eds.), Pollution at Sea: Law and Liability London 2012

Stoczkiewicz, Marcin, *The polluter pays principle and State aid for environmental protection* Journal of European Environmental & Planning Law Vol. 6 (2009), pp. 171-196

Trébulle, François-Guy, Quelle prise en compte pour le préjudice écologique après l'Erika? Environnement n° 3, Mars 2013 pp. 19-25.

Van Dam, Cees, European Tort Law, 2<sup>nd</sup> ed. Oxford 2013

Van der Zwaag, David L/Powers, Ann, *The Protection of the Marine Environment from Land-Based Pollution and Activities: Gauging the Tides of Global and Regional Governance* The International Journal of Marine and Coastal Law Vol. 23 (2008), pp. 423-452

Viñuales, Jorge E., The Rio Declaration on Environment and Development: A Commentary Oxford 2015

Wennerås, Pål, A progressive interpretation of the Environmental Liability Directive JEEP 2005, pp. 257-267

Wilde, Mark, The EC Commission's White Paper on Environmental Liability: Issues and Implications Journal of Environmental Law Vol. 13 (2001), pp. 21-37