Sustainable Development of the Oceans: Closing the Gaps in the International Legal Framework

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Abstract The world's oceans are critical providers of ecosystem services and they are under increasing pressure from expanding and intensifying human activities. A range of international instruments and institutions aim to regulate maritime activities, though some legal gaps in the international framework remain. In particular, areas beyond national jurisdiction (ABNJ) lack an overarching regulatory framework, with no provisions for marine protected areas, environmental impact assessment, or access and benefit sharing in relation to marine genetic resources. There are also gaps and weakness in the international framework for the exploitation of offshore oil and gas resources. In this chapter, we highlight these gaps, outline relevant ongoing processes to fill them, and propose ways forward.

Keywords Areas beyond national jurisdiction · Marine protected areas · Environmental impact assessment · Access and benefit sharing · Marine genetic resources · Offshore oil and gas

1 Introduction

A growing population and appetite for resources, coupled with innovation and rapid technological advancement, is driving unprecedented exploitation of the marine environment. This is driving a new 'industrial revolution' of the oceans (Charter 2007; Salcido 2008), encouraged by a growing policy focus on 'Blue Growth', i.e.

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development of policy aimed at leveraging the natural resources of the marine environment to achieve economic growth (European Commission 2012).

Traditional maritime activities such as fishing, navigation, or offshore oil and gas drilling are intensifying: fishing vessels target deeper as less fish remains in shallower waters; ship traffic is increasing, fuelled by booming world trade; and oil and gas drilling is moving ever deeper and further from shore. In addition, new activities are in varying stages of implementation: aquaculture is developing rapidly to ensure food security in the context of declining fish stocks (FAO Fisheries and Aquaculture Department 2014); marine genetic resources (MGRs) are attracting the interest of researchers and developers due to their unique biochemical properties (Leary 2011; Broggiato 2013); various options for offshore renewable energy (REN21 2013; Wright 2015) and geoengineering (Rayfuse et al. 2008; Boyd 2013) are being developed in pursuit of carbon reduction goals; and seabed mining is on the brink of becoming a commercial reality after a long gestation period.[1] Climate change, ocean acidification and various forms of pollution also threaten the oceans.

The more that we learn about marine ecosystems, the more apparent their importance becomes. The world's oceans are critical providers of the ecosystem services on which humanity depends. Given this importance, there exist a great number of international instruments and institutions aimed at regulating many maritime activities, though some legal gaps in the international framework still remain.

2 Sustainable Development, Implementation Gaps and Legal Gaps

The outcome document of the United Nations Conference on Sustainable Development 2012 ('Rio + 20'), *The Future We Want* (UN 2012), recognised that "oceans, seas and coastal areas form an integrated and essential component of the Earth's ecosystem and are critical to sustaining it, and that international law, as reflected in the United Nations Convention on the Law of the Sea, provides the legal framework for the conservation and sustainable use of the oceans and their resources".

Indeed, the United Nations Convention on the Law of the Sea (UNCLOS 1982) is generally considered to be the 'Constitution of the Sea' setting out "the legal framework within which all activities in the oceans and seas must be carried out" (UNGA 2010). As such, it does institute some specific obligations and responsibilities in relation to the marine environment. PART XII contains a general obligation to "protect and preserve the marine environment",[2] an obligation to take

[1] See The International Seabed Authority (ISA) has entered into 26 exploration contracts in the Atlantic, Indian and Pacific Oceans and is currently in the process of developing regulations regarding the exploitation of deepsea mineral resources.

[2] Article 192.

measures to prevent, reduce and control pollution,[3] and an obligation to assess the potential effects of activities that may "cause substantial pollution of or significant and harmful changes to the marine environment".[4]

In addition to the UNCLOS (1982) environmental provisions, a range of international instruments and institutions has been developed, including: the Convention on Biological Diversity (CBD 1992), which provides a framework for the conservation and sustainable use of biodiversity in both terrestrial and marine environments; the UN Fish Stocks Agreement (UN 2001), which regulates migratory fish stocks; and the International Convention for the Prevention of Pollution from Ships (MARPOL 1973) and London Convention (1972), which regulate pollution from ships and dumping respectively.

States have also recently agreed to develop a set of Sustainable Development Goals (SDGs) (UNGA 2014) building upon the previously agreed Millennium Development Goals (MDGs). The SDGs will incorporate the MDGs' primary aim of alleviating poverty, but will also focus more concretely on environmental concerns. The proposed goal 14 on oceans is to: "Conserve and sustainably use the oceans, seas and marine resources for sustainable development" (UNGA 2014).

A number of discrete targets are proposed, to be met by 2020, including to: "sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans"; and "conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information" (UNGA 2014).

The proposed oceans goal also calls on states to "ensure the full implementation of international law, as reflected in UNCLOS (1982) for States parties thereto, including, where applicable, existing regional and international regimes for the conservation and sustainable use of oceans and their resources by their parties" (UNGA 2014). This implies an increased focus on, and role for, existing regional arrangements, as well as better implementation of existing international and sectoral measures.

The plethora of existing international legal instruments suggests that, in general, efforts to ensure sustainable development of the oceans are hampered by weaknesses in implementation, rather than a lack of legal coverage. The international community has expended a huge amount of time and effort on establishing policy commitments that aim to protect the oceans, but there is still a considerable difference between the commitments formally expressed by States in these policy documents and their subsequent willingness or capacity to fully implement them.

To take only one example, the 2002 World Summit on Sustainable Development committed States to establish representative networks of marine protected areas (MPAs) by 2012. At the 2012 Rio + 20 conference, it was clear that little progress had been made towards meeting this target, which had subsequently been recast

[3] Article 194.

[4] Article 206.

under the auspices of the CBD as one of the 'Aichi Targets'. Aichi Target 11 now foresees that "at least (…) 10 % of coastal and marine areas (…) are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures" by 2020. As of today, less than 3 % of the ocean has been designated as MPAs, and only around 0.5 % of Areas Beyond National Jurisdiction (ABNJ) are protected (IUCN and UNEP-WCMC 2013), despite these commitments. Extrapolations made in the Global Biodiversity Outlook 4 therefore suggest that the marine target is still not on course to be met (CBD Secretariat 2014, p. 83).

While implementation of existing agreements and commitments must be accorded a high priority, it should not be forgotten that there remain some significant gaps in the international legal framework for sustainable development in the oceans. Firstly, in relation to ABNJ, there is no coherent and comprehensive framework for the implementation of important conservation tools or for the regulation of research and development on MGRs. Secondly, there is currently no legally binding agreement regulating liability and compensation for pollution damage resulting from offshore oil and gas activities.

3 Conservation and Sustainable Use of Marine Biodiversity in ABNJ

Marine areas beyond national jurisdiction represent approximately half of the planet's surface. Consisting of both the 'high seas',[5] and the 'Area' (UNCLOS 1982[6]), ABNJ host a significant proportion of the earth's biodiversity (Census of Marine Life 2011, p. 16). As with the oceans at large, pressure on ecosystems in ABNJ has been mounting, and further pressure is on the horizon as scientific discoveries and technological developments now make it possible to exploit new resources, particularly marine generic resources and deep-sea minerals.

3.1 A New International Legally Binding Instrument on Marine Biodiversity in ABNJ

Current discussions on marine biodiversity in ABNJ have their origins in the Ad Hoc *Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national*

[5]The High Seas cover the water column beyond the Economic Exclusive Zone of Coastal States.
[6]Defined as 'the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction'. Art. 1(1).

jurisdiction ("BBNJ Working Group") established by the UNGA in 2004 (see Druel et al. 2013).

Since 2011, States have worked on a 'Package Deal' of issues, specifically: (i) marine genetic resources (MGRs), including questions on the sharing of benefits; (ii) area-based management tools (ABMTs), including marine protected areas (MPAs); (iii) environmental impact assessments (EIA); and (iv) capacity-building and the transfer of marine technology.

At the Rio + 20 conference, States committed to urgently address the issue of the conservation and sustainable use of marine biological diversity in ABNJ, including by taking a decision on the development of an international instrument under UNCLOS (UN 2012, para. 162). Between 2014 and 2015, three meetings of the BBNJ Working Group were held in order to discuss whether or not negotiations should commence. This process culminated in January 2015 with the historic step of States agreeing to open negotiations for a new international legally binding instrument under UNCLOS (Rochette et al. 2015). This will presumably take the form of an implementing agreement (IA) to UNCLOS (1982) on the conservation and sustainable use of marine biodiversity in ABNJ.

We briefly discuss below the key challenges and options for the development of such an IA in relation to three of the four Package Deal areas: MPAs, MGRs and EIA.[7]

3.2 Elements of a New UNCLOS IA

3.2.1 Marine Protected Areas

There is no universally agreed definition of 'marine protected area', though various organisations and institutions have developed a number of definitions (Druel 2011). The basic idea shared between all definitions is that MPAs will have "a special status in comparison with the surrounding area due to their more stringent regulation of one or more human activities […] by one or more measures […] for one or more purposes" (Molenaar and Elferink 2009, p. 6).

In MPAs, the level of protection may vary depending on the pressures on the area to be protected and on the needs for conservation. Some MPAs may be entirely or partly marine reserves, including so-called 'no-take' zones, while in others only

[7]Technology transfer and capacity building are undoubtedly a crucial part of the overall sustainable development framework, though the legal gaps are arguably less pronounced than in the other areas. Article 144 of UNCLOS (1982) outlines the principles of technology transfer in relation to the Area—these could be extended to all of ABNJ—while the Intergovernmental Oceanographic Commission (IOC) has developed non-legally binding Criteria and Guidelines on Transfer of Marine Technology (2003). UNCLOS (1982) also promotes the strengthening and establishment of national and regional centres for marine science and technology (Articles 275 and 276).

certain activities such as fishing or tourism will be regulated and not necessarily prohibited.

There is currently strong interest in the establishment of multi-purpose MPAs in ABNJ, i.e. MPAs which aim to regulate a large variety of human activities with the ultimate objective to address different, cumulative pressures on marine biodiversity. However, there is no global mechanism for the establishment of such multi-purpose or multi-sectoral MPAs. Instead, the prevailing approach to conservation and sustainable use at the international level is sectoral.

Several international and regional organisations are already able to establish what can be called 'sectoral MPAs' or 'area-based management tools' in ABNJ, e.g.:

- The International Maritime Organization (IMO) can designate Particularly Sensitive Sea Areas (PSSA) to protect areas that, for recognised ecological, socio-economic or scientific reasons, may be vulnerable to damage by international shipping activities (IMO 2005). No PSSAs have been designated in ABNJ to date.
- The International Seabed Authority (ISA) can designate Areas of Particular Environmental Interest (APEI) and preservation reference zones to address impacts from deep seabed mining activities (ISA 2013). The ISA has declared 9 APEIs in the Clarion-Clipperton Zone (North Central Pacific) (ISA 2012).
- Regional Fisheries Management Organisations (RFMOs) can designate closures of certain fisheries to protect or restore the stocks they manage, or to protect the vulnerable marine ecosystems (VMEs) located on the seabed (pursuant to relevant UNGA resolutions, in particular UN 2006). Approximately 30 such closures have been made in the North-East Atlantic, North-West Atlantic, and South-East Atlantic (Wright et al. 2014a, b).

In parallel, a scientific process has been ongoing under the auspices of the CBD to identify ecologically or biologically significant marine areas (EBSAs). However identification of an EBSA does not have any immediate legal effect, and the management of these marine areas remains in the hands of the competent authorities.

While a number of international agreements and institutions thus have mandates to establish area-based management measures in ABNJ, there is currently no institution with an explicit mandate to establish cross-sectoral MPAs, nor a global procedure to bring together the various organisations and coordinate their activities in order to achieve this. The need to establish an international framework for the creation and management of multi-sectoral, well connected and internationally-recognised MPAs in ABNJ has been considered in detail within the BBNJ Working Group (Druel et al. 2013).

In order to consider what the substantive content of a new UNCLOS IA may be in relation to MPAs, it is helpful to think of the establishment of an MPA as a process requiring a number of steps to be taken. These include: (i) the description of a suitable area according to determined scientific criteria; (ii) the proposal of an MPA; (iii) official designation by a competent authority; and (iv) the adoption of a

management plan and management measures aimed at meeting the objectives of the MPA.

A number of sets of scientific criteria for identifying MPAs, or similar areas, have already been developed, such as EBSAs, VMEs, and PSSAs, mentioned above. A new IA could utilise any one of these approaches, establish a new set of criteria inspired by them, or both. There is even the possibility that the criteria could go beyond merely scientific factors so as to include areas of socio-economic, cultural, and educational importance.

This is already the case for PSSAs. The IMO criteria for identification of PSSAs lists 'social, cultural, and economic criteria' and 'scientific and educational criteria' as two of the three categories for designation of a PSSA. An area can be designated as a PSSA on the basis of one criterion alone (IMO 2005 Sect. 44).

As to the manner in which an MPA might be proposed, options include proposal by one or a number of States, by a specific body convened under the auspices of the IA, or by NGOs or organisations with State support. Provision may be needed to ensure that a dedicated scientific body considers proposals and that they are officially endorsed by a Conference of the Parties (COP) or relevant organisational meeting.

There are also many potential structures that could be implemented for the adoption of management plans and management measures for meeting the objectives of an MPA. Indeed, adoption of a management plan may not even be necessary; the focus being placed instead on the adoption of specific management measures. Alternatively, a proponent may be required to submit a management plan when proposing an MPA, or one could be subsequently developed and adopted by an organ of the IA, or a regional organization.

In any event, management measures will be an essential part of ensuring the effectiveness of the MPA and mechanisms for their adoption will be needed. Such mechanisms could include proposal along with the MPA, or development by States cooperating directly and through competent international, regional, and sectoral organisations. To this end, regional working groups or advisory bodies could be established to bring together States, competent organisations, scientists, and other stakeholders in order to consider the management of MPAs in a given region.

3.2.2 Marine Genetic Resources

The use of MGRs found in ABNJ is currently not specifically regulated by an international legal instrument. The international regime for access to genetic resources and the sharing of benefits from their utilization (ABS) established by the CBD and its Nagoya Protocol is limited to genetic resources over which States have sovereign rights, thus not applicable to MGRs from ABNJ.[8] MGRs are also not

[8]Article 15.1 of the CBD and Article 3 of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (Nagoya Protocol).

mentioned in UNCLOS (1982), and the 'resources' regulated by Part XI are explicitly defined as mineral (non-living) resources, thus excluding MGRs.[9]

This leaves a situation where either full implementation of UNGA Resolution 2749 is still pending, according to which all resources from the Area including also MGRs should be considered as Common Heritage of Mankind (CHM);[10] or where the freedom of the high seas principle applies to MGRs.[11] Regardless of the approach taken, and the possible monetary benefit-sharing obligations this may or may not entail, use of MGRs remains subject to provisions on Marine Scientific Research (MSR). While these MSR provisions already include non-monetary benefit-sharing obligations,[12] no mechanism currently exists to ensure their complete and coherent implementation.

Again there are several potential structures that could be implemented for the adoption of an ABS regime for ABNJ. For example, the existing multilateral ABS approach under the FAO International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) provides some ideas that could be adjusted to ABNJ. The ITPGRFA establishes a common pool of resources designed to facilitate access to genetic resources (and thereby further research), and to ensure the benefits derived from their use are fairly and equitably shared based on previously agreed terms.

A common pool could also be created comprising MGRs from ABNJ, drawing on established elements of the ITPGRFA's multilateral ABS process; in particular the development of standard material transfer agreements, differentiated and flexible access rights and benefit-sharing obligations, and the regulation of intellectual property rights. Regardless of the particular structure, approach and ideas followed, an ABS regime will have to be based on three main pillars: access to the resources, fair and equitable sharing of benefits, and compliance.

In terms of regulating access to MGRs, a distinction is generally made between in situ, ex situ, and in silico access. In situ refers to samples of MGRs collected in their natural setting, while ex situ *refers* to samples previously collected in ABNJ and subsequently stored in 'biorepositories'. In silico refers to access to any knowledge associated with the MGRs, such as observational or experimental data and other findings.

The regulation of in situ access raises questions of geographic scope, as well as sustainability: sampling takes place in both the 'Area' but also in the water column. Some of the resources are even 'transboundary', i.e. existing in and migrating between both maritime areas. To avoid loopholes MGRs from both spaces should be covered by an ABS system. Furthermore, the question of sustainability of access

[9]Article 133(a) UNCLOS.

[10]Resolution 2749 (XXV): Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction, 12 December 1970, A/RES/25/2749. In contrast to the Part XI regime of UNCLOS, Resolution 2749 does not define the term 'resources of the Area' and thus does not limit it only to minerals/non-living resources.

[11]Article 87–88 UNCLOS.

[12]Articles 242, 244 and Articles 143.3, 144.2 UNCLOS.

should not be neglected. While the environmental impacts of collecting MGRs are most of the time minimal or non-existing, ultimately this is highly site-specific, depending on the fragility of the area, the amount of resources taken and the frequency of taking, as well as the sampling techniques used and the standards applied by the scientists.

In contrast, the regulation of ex situ and in silico access will become a question to be addressed in the context of benefit-sharing, as facilitating such access will provide a clear benefit for the international scientific community, while also promoting further scientific research. Two broad categories of benefits are usually distinguished: monetary and non-monetary.[13] The high cost of obtaining MGRs in ABNJ and the long route to developing a commercial product (Broggiato et al. 2014, p. 177) mean that the most secure and direct benefits that can be shared are non-monetary. As mentioned before, the UNCLOS (1982) provisions related to MSR already envisage international cooperation in MSR,[14] publication and dissemination of results,[15] and promoting data flow and knowledge transfer.[16] These basic provisions under UNCLOS (1982) could provide the starting point for the further development of non-monetary benefit-sharing obligations.

Though less common, monetary benefits may also flow from the development of MGRs into commercially viable products, and in particular developing states will be keen to ensure that these benefits are distributed appropriately. Key questions here concern the trigger for monetary benefit sharing, and the blurred distinction between commercial and non-commercial research and development. An upfront payment for access could be appropriate where there is a clear commercial intent, but it would further increase the costs of non-commercial research and thus create a financial problem for such activities. In practice, sampling cruises in ABNJ tend to be non-commercial, or at least their objectives are not solely or primarily commercial. This makes them difficult to distinguish and therefore difficult to ensure that the appropriate remunerations are sought at the point of access.

As an alternative to upfront payments, a multilateral ABS system under a new UNCLOS IA could provide for payments at various stages along the chain of MGR research and development. Payment could become due upon reaching certain milestones (e.g. an exclusivity fee when an intellectual property right is granted), or when a commercial product is created and sold. At the same time, fees could be charged to acquire MGR samples from ex situ collections, or for access to in silico knowledge.

Some form of trust fund for ABNJ could be established to administer the monetary benefits on behalf of the international community. These resources could be used to support further non-monetary benefit-sharing (e.g. capacity-building and

[13]See also the Annex to the Nagoya Protocol and its indicative lists of monetary and non-monetary benefits.

[14]Articles 242 and 143.3(a).

[15]Articles 244.1 and 143.3(c).

[16]Articles 244.2 and 144.2.

technology transfer)). They could also be used to support activities related to conservation and sustainable use of marine biodiversity in ABNJ, thereby linking a benefit-sharing regime with the other elements of the Package Deal.

3.2.3 Environmental Impact Assessment

EIA is a key tool of environmental law globally, and its application to activities in the marine environment has been endorsed by many international legal instruments and policy documents (Morgan 2012). Although an obligation to conduct environmental assessment is well established in both customary and conventional international law, including the obligation in Article 206 of UNCLOS (1982), implementation in ABNJ is fragmented across different sectoral and regional bodies. There is no overarching international process or agreement for the implementation of EIA in ABNJ: a few Regional Seas programs have specific environmental protection responsibilities for ABNJ,[17] while the ISA has comprehensive environmental protection powers for seabed mining activities affecting the Area, but not in relation to other activities or parts of the marine environment. There are also no mandatory EIA regulations at the international level to govern new or emerging activities such as geo-engineering and sampling of MGRs.

This lack of an integrated system of environmental governance for ABNJ presents a challenge for effectively implementing EIA in these vast expanses of ABNJ. The predominant form of jurisdiction in ABNJ is flag State jurisdiction; for shipping and fishing vessels in ABNJ, responsibility for enforcement falls largely to flag States, rather than any global body. This results in varying levels of compliance with environmental standards, and a lack of auditing and sanctions for those falling short. Many stages in an EIA process require a strong lead agency to play a coordinating role, but this is lacking in the fragmentary system of governance applicable to most activities in ABNJ. These stages include the initial screening process (selecting which activities are subject to EIA), the scoping process (deciding the terms of reference for an EIA), the public notification and consultation process, and ongoing monitoring of impacts.

Including EIA within an UNCLOS IA can provide best practice standards for EIA in ABNJ, setting out an EIA process that is biodiversity inclusive, transparent and subject to international scrutiny, with associated powers to impose conditions on any activities that may negatively impact marine ecosystems in ABNJ.

[17]The scope of application of the 1986 Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (Noumea Convention), the 1992 Convention for the Protection of the Marine Environment of the North-east Atlantic (OSPAR Convention) and the 1995 Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) extend to ABNJ.

4 Next Steps

Based on the recommendations made by the BBNJ Working Group in January 2015 (UNGA 2015) the process for the development of a new UNCLOS IA will take a two-step approach:

- A preparatory commission ("PrepCom") will first be established and work in 2016 and 2017 in order to make substantive recommendations on the elements of a draft text. The PrepCom will report to the UNGA by the end of 2017;
- Before the end of its 72nd session (i.e. September 2018), the UNGA will decide on the convening and on the starting date of an intergovernmental conference to consider the recommendations of the PrepCom and elaborate the new instrument.

Importantly, the PrepCom will be open not only to Member States of the United Nations, but also to "members of specialised agencies (…) and others invited as observers" in accordance with past practice (UNGA 2015, §5a). The process will therefore be transparent and authorise the participation of the civil society.

Even though consensus was reached on the opening of negotiations, a few States, primarily the US, Canada, Japan and Russia, remain "unconvinced" on the absolute need to elaborate a new instrument (IISD 2015). They therefore may continue to express their doubts and concerns during the PrepCom meetings, slowing down the process by returning to the perennial debate on whether or not there are gaps in the current legal framework.

Moreover, the explicit reference to the elements of the Package Deal does not mean that delegations share a common vision on the content of the future instrument. Negotiations on MGRs, particularly on an ABS mechanism, are likely to be complex. Likewise, though States agreed not to "undermine existing relevant legal instruments and frameworks and relevant global, regional and sectoral bodies" (UNGA 2015, §7), the practical ways of integrating biodiversity conservation and enhancing coordination through the future instrument with the existing legal and institutional framework will be one of the key challenges.

5 Liability and Compensation for Pollution Damage Resulting from Offshore Oil and Gas Activities

Another gap in the international legal framework relates to offshore oil and gas activities, which have developed considerably in recent decades. Due to increasing energy demand and technological advancements, drilling has moved further into deep and ultra-deep areas. Today, almost a third of the oil and a quarter of the natural gas consumed in the world come from offshore sources, and forecasts predict continued growth for the foreseeable future (Pike 2013). Intensification of offshore oil and gas exploitation means increasing threats to marine ecosystems, as

well as potential consequences for the human activities dependant on those ecosystems.

Recent disasters have demonstrated that the environmental risks of offshore drilling are widespread, affecting all regions and all types of company. As such disasters have had transboundary impacts, discussions have recently resurfaced on the suitability of the current international framework for the regulation of offshore oil and gas activities (Rochette et al. 2014a, b).

In this regard, it is clear that there is a regulatory gap, in that there are currently no global rules regulating liability and compensation for pollution damage resulting from offshore drilling activities (Rares 2011). Regional agreements have not addressed this issue and are very limited (in the Mediterranean and the European Union, for instance), while the offshore pollution liability agreement (OPOL), a private regime, is limited in its geographical coverage and capped at a rather low level with regard to the compensation of damages. As a result, "it is left to national laws to deal with this matter. Such laws vary enormously both in the way that the law itself deals with it and with the way contractual indemnities are interpreted and enforced, or not as the case may be" (Cameron 2012, p. 211).

An Indonesian proposal to elaborate a specific international convention was considered by the IMO Legal Committee from 2010 onwards, however there is no evidence of the necessary political will amongst other States. Reluctant States reject the idea of a global regulation and argue in favour of regional regulation.

Several risks can be highlighted if the legal *status quo* remains: (i) a risk of legal uncertainty and therefore a risk of political dispute between States; (ii) a risk of partial or nonpayment of damages because of the absence of clear rules; (iii) a risk of insolvency: indeed, "the international oil industry is now populated with a combination of big oil companies such as BP and ExxonMobil, medium to large oil companies such as Anadarko and many National Oil Companies, and numerous "new entrant" companies, including service companies, which certainly do not have the access to capital to pay the kind of large claims which BP faced following the Macondo oil spill" (Cameron 2012, p. 213).

It is therefore urgent to fill the regulatory gaps. In this regard, a potential global agreement on liability and compensation would implement the polluter-pays principle. It could be based on the following elements:

- **Type of damage covered**. The loss and damage covered by the regime should be as broad as possible and include, beyond economic losses, the ecological damage. "Without defining pollution damage to include these non-economic, abstract claims, [a treaty] regulating oil pollution from fixed platforms will still fail to leave victims fully recovered after massive oil disasters" (Smith 2011).
- **Strict liability**.[18] A future regime should be based on the strict liability of operators, for three main reasons. First, it is the most pragmatic regime: "strict liability would avoid argument about whether some other criterion of

[18]Strict liability holds a company liable for all damages, regardless of whether or not they arise from activities carried out within the permit provided.

responsibility, such as negligence or other fault, has occurred before someone is required to pay compensation. Strict liability offers certainty both in fixing immediate responsibility on an identified person to pay compensation as soon as a casualty occurs and, generally, in identifying what is payable" (Rares 2011). Second, "the various sources of customary international law reflect the emergence of the doctrine of strict liability and support its application in transnational offshore oil accidents" (Cates 1984). Third, it is the regime adopted in many national legal systems for abnormally dangerous activity.

- **Joint liability**. Liability should be shared between all license holders and their subcontractors. Indeed, "there will always be a risk that insurance, bank guarantees, or protection and indemnity arrangements may fail to respond, due to the insolvency of the person with the obligation to indemnify the controller. Thus, a wider range of persons involved in the ownership operation or control of an off-shore rig should be made responsible" (Rares 2011).
- **Financial capacity of operators**. States should ensure that operators have adequate financial capacity to pay possible compensation. To that purpose, compulsory third party insurance should become a necessary requirement for all companies.
- **Liability cap**. A cap may be set on the level of compensation, in order to balance the strict liability regime. However, such cap must be set at a level that can ensure the recovery of costs associated with environmental remediation and compensation and losses born by public and private entities. It also needs to take into account lessons learned from the level of costs incurred by recent accidents as specified by activity and/or technology and the sensitivity of the environment and ecosystem services it provides. Furthermore, a compensation fund, either publicly or privately funded, or both, could be set up to address major disasters that are likely to exceed the liability cap.
- **Judicial settlement**. First, any regime should allow the widest range of persons and States affected by pollution damage to make claims for compensation. Second, as with the Bunker Oil Convention and International Convention on Civil Liability for Oil Pollution Damage (UN 1969), jurisdiction should be given to the courts of any State Party in which the damage occurred and judgments given by that courts should be recognised by the courts of other States Parties.

6 Conclusion

The discussion above highlights two of the most important remaining legal gaps in the international framework for sustainable development in the marine environment: conservation and sustainable use of marine biodiversity in ABNJ and liability and compensation for oil pollution damage resulting from offshore oil and gas activities.

The consensus reached within the last BBNJ Working Group meeting is undoubtedly a historical one, paving the way for a global legally-binding instrument specifically dedicated to filling the governance and regulatory gaps in ABNJ. Nonetheless, pitfalls and challenges remain in the road ahead, and these will need to be carefully navigated. The opening of the negotiations for an international instrument does not diminish the need to advance sectoral and regional initiatives to conserve and sustainably use marine biodiversity in ABNJ. These must be strengthened hand in hand with the development of the new agreement as any new IA will depend on strong and well-coordinated action at multiple levels (Rochette et al. 2014a, b).

As for offshore oil and gas, this sector remains, for the moment, one of the least regulated maritime industries. Given the current growth of offshore activities and the recent accidents that highlighted considerable risks to the environment, it is time to reconsider international regulations in this area.

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