Elements of a Possible Implementation Agreement to UNCLOS for the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction

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Elements of a Possible Implementation Agreement to UNCLOS for the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction
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Executive Summary

The oceans play a critical role in the climate and functioning of the planet, and are crucial for human nutrition, biodiversity and development. Some two-thirds of the world’s oceans are beyond national jurisdiction. These areas of open ocean and deep sea contain fragile features such as seamount communities, cold water corals and hydrothermal vents as well as important feeding areas for migrating species.

The international community has recognised the importance of biodiversity as fundamental to achieving global sustainable development, and is now committed to achieving integrated management through ecosystem and precautionary approaches.

But marine resources in areas beyond national jurisdiction (ABNJ) are under increasing pressure from human impacts, putting at risk biodiversity, ecosystem processes and function. There is a heightened focus on whether current arrangements and policies are adequate.

This paper explores possible elements of a new instrument to protect such biodiversity - an Implementation Agreement under the United Nations Convention on the Law of the Sea (UNCLOS). Such an Agreement could adopt modern approaches such as precaution and ecosystem management and complement and strengthen existing arrangements by offering a mechanism to enhance co-ordination and co-operation.

Some of the key findings in this paper include:

– There are a range of interested bodies and fora with varying responsibilities for biodiversity in ABNJ with the legal framework established by UNCLOS;

– There is a need for improved implementation of, and better coordination between, current legal instruments applicable to ABNJ;

– There are gaps and shortcomings in the current legal framework and governance structures with acute gaps being the lack of assessment and implementation of conservation measures to fully reflect the evolving understanding of the ecosystem approach and the precautionary approach;

– An Implementation Agreement could help address these problems by providing a mechanism to: i) augment, elaborate, and make operational general provisions of UNCLOS in relation to ABNJ, ii) improve cooperation amongst existing institutions, and iii) co-ordinate ecosystem-based governance for the conservation and sustainable use of resources and biodiversity in these areas.

In particular, some key issues to be discussed in the context of an Implementation Agreement include:

• provision for area-based measures, including representative networks of protected areas, that offer a higher level of protection for various important habitats (eg, unique, threatened and best examples of type) and key ecosystem functions and processes in ABNJ;

• a mechanism to enhance international cooperation and exchange of information regarding proposed major marine scientific research (MSR) programmes in ABNJ, and to transfer the resulting knowledge, as well as a platform for regular global monitoring and assessment;

• specific means to ensure prior environmental impact assessment (EIA), including taking account of cumulative impacts across different sectors, and ongoing monitoring when planned or ongoing activities may cause significant impacts;

• commitment to ecosystem-based approaches to ocean conservation and management, including the use of integrated spatial planning;

• provision for a notification and reporting process for new and emerging uses of ABNJ, including experimental activities;

• a framework for the equitable use of marine resources in ABNJ, including marine genetic resources (MGR); and
• agreement on measures to ensure transparency, consultation, and accountability for all major stakeholders in ocean use and conservation.

An Implementation Agreement containing these elements could significantly improve the co-ordination and integration of measures to ensure the sustainable and equitable use of resources and the conservation of biodiversity in ABNJ.

None of this affects the need for progress to still be made within regional and sectoral bodies and organisations or on much needed efforts to improve implementation of existing instruments. What is most important at this time is to raise awareness and to initiate action, to alter attitudes and to guide decision-makers to invest in achieving conservation and equitable use objectives for ABNJ.
## List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ABNJ</td>
<td>areas beyond national jurisdiction</td>
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<tr>
<td>CBD</td>
<td>Convention on Biological Diversity</td>
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<tr>
<td>CMS</td>
<td>Convention on the Conservation of Migratory Species of Wild Animals</td>
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<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>EU</td>
<td>European Union</td>
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<td>FAO</td>
<td>United Nations Food and Agriculture Organization</td>
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<td>IMO</td>
<td>International Maritime Organisation</td>
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<tr>
<td>ISA</td>
<td>International Seabed Authority</td>
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<tr>
<td>IUU</td>
<td>Illegal, unreported and unregulated (fishing)</td>
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<td>JAMP</td>
<td>Joint Assessment and Monitoring Programme</td>
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<td>MGR</td>
<td>Marine Genetic Resources</td>
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<td>MPAs</td>
<td>Marine Protected Areas</td>
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<td>MSR</td>
<td>Marine Scientific Research</td>
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<td>NAFO</td>
<td>Northwest Atlantic Fisheries Organisation</td>
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<td>NEAFC</td>
<td>North-East Atlantic Fisheries Commission</td>
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<td>NGOs</td>
<td>Non-Governmental Organisations</td>
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<td>OSPAR</td>
<td>Convention for the Protection of the Marine Environment of the North-East Atlantic</td>
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<td>PSSAs</td>
<td>Particularly Sensitive Sea Areas</td>
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<td>RFBs</td>
<td>Regional Fisheries Bodies</td>
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<td>RFMO</td>
<td>Regional Fisheries Management Organisation</td>
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<tr>
<td>RFMOs/As</td>
<td>Regional Fisheries Management Organisations and Arrangements</td>
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<tr>
<td>SBSTTA</td>
<td>CBD Subsidiary Body on Scientific, Technical and Technological Advice</td>
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<tr>
<td>SEA</td>
<td>Strategic Environmental Assessment</td>
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<tr>
<td>TRIPS</td>
<td>Agreement on Trade-Related Aspects of Intellectual Property Rights</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<tr>
<td>UNFSA</td>
<td>United Nations Fish Stocks Agreement</td>
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<tr>
<td>UNICPOLOS</td>
<td>United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea</td>
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<td>WSSD</td>
<td>World Summit on Sustainable Development</td>
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The marine environment plays a critical role in the climate and functioning of the planet. It is estimated to constitute more than 90 percent of the volume of the biosphere within which animal and plant life permanently occurs, and is crucial for human nutrition and development. Some two-thirds of the world's oceans are beyond national jurisdiction. These areas of open oceans and deep seas contain fragile features such as seamount communities, cold water corals and hydrothermal vents as well as important feeding areas for migrating species.

The international community is recognising increasingly the importance of biodiversity as fundamental to achieving global sustainable development. At the World Summit on Sustainable Development (WSSD), the Convention on Biological Diversity (CBD) and at other United Nations fora commitments have been entered into on biodiversity and protected areas that embrace biodiversity in areas beyond national jurisdiction (ABNJ). There has also been a move towards favouring holistic management through ecosystem and precautionary approaches.

But marine resources in ABNJ are under increasing pressure from human impacts putting at risk biodiversity, ecosystem processes and function. This along with new approaches and the need to meet international commitments has led to a heightened focus on whether current arrangements and policies are adequate in the management of activities in ABNJ, raising questions about the need for improved governance in protecting biodiversity.

This paper explores possible elements of a new instrument to protect such biodiversity - a Biodiversity Implementation Agreement under the United Nations Convention on the Law of the Sea (UNCLOS). Such an Agreement could adopt modern approaches such as precaution and ecosystem management and complement and strengthen existing arrangements by offering a mechanism to enhance co-ordination and co-operation.

ABNJ are little visited by policy makers, the media, politicians or the general public. Such areas are remote by virtue of their distance from land and by their nature largely out of sight. It is necessary to raise awareness, to alter attitudes and to guide decision-makers to invest in achieving conservation and sustainable use objectives for ABNJ. This paper intends to stimulate this necessary dialogue and awareness raising with stakeholders. It complements, and should be read in conjunction with, the first three papers of this Series – No.1: Analysis of the Regulatory and Governance Gaps in the International Regime for the Conservation and Sustainable Use of Marine Biodiversity in ABNJ (‘Gap Analysis’), No. 2: Options for Addressing Regulatory and Governance Gaps in the International Regime for the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction (‘Options paper’) and No. 3: Case Study on the Mid-Atlantic Ridge.

1 Where we are now: The current policy and regulatory position for biodiversity in ABNJ

UNCLOS provides the legal framework for all oceans activities. Inter alia, it obliges States to protect and preserve the marine environment (including rare or fragile ecosystems), with particular requirements on co-operation between States on a global and regional basis for formulating and elaborating the necessary international rules (UNCLOS Articles 192, 194 and 197).

Currently less than 1% of the global ocean is formally protected through establishment of marine protected areas (MPAs), with almost all of these occurring under areas of national jurisdiction. Our knowledge of the species, habitats and ecosystems within ABNJ and of the effects of human activities in these areas is limited. We therefore run the risk of destroying species and potential resources before they are known to exist and reducing the biodiversity of ABNJ. As highlighted by the 7th Conference of the Parties to the CBD, there is an urgent need for international cooperation and action to improve conservation and sustainable use of biodiversity in ABNJ. A starting point is to look at the work of a range of competent regulatory bodies (1.1) as well as the governance challenges which are faced in ABNJ (1.2).

1.1 Competent bodies

There are a number of organisations at the international and regional level that are competent to regulate a range of human activities such as fishing, vessel sourced marine pollution and mining within ABNJ. These mechanisms are generally focussed on specific sectors and therefore regulate specific activities, species or geographical areas/zones. Not all States are party to these agreements, nor do all Parties to them always implement agreements effectively.

Fisheries / regional fisheries bodies (RFBs, including regional fisheries management organisations and arrangements (RFMOs/As)): RFBs have been a prime focus in looking at ABNJ governance. Work has been taken forward in a number of regions, eg, in the North East Atlantic, to delimit some seamount areas as no-go areas for destructive fisheries practices on at least a temporary basis. There are also moves by fisheries bodies to extend and amend their management powers to tackle destructive fishing practices and adequately secure the conservation and sustainable use of biodiversity. And there is action to establish RFMOs/As in areas of the high seas where currently there are none. However, despite this progress in addressing gaps with respect to deep sea fisheries and vulnerable marine ecosystems, there is significant variability in the mandate, capacity and will of RFBs to take effective conservation measures. The traditional role of these bodies is primarily fisheries management. Many are not designed to deal with the potential impacts of fisheries on sensitive ecosystems or species or to consider broader biodiversity interests in an integrated way, including pressures from other sectors. Action through RFBs, whilst valuable, is unlikely to provide the degree of international ownership, policy integration and permanency that is required.

Minerals / the International Seabed Authority (ISA): The ISA's basic function is to manage the mineral resources of the Area, which are the common heritage of mankind. In managing the mineral resources, the Authority is required to ensure the effective protection of the marine environment from harmful effects which may arise both from exploration for and subsequent exploitation of these resources. The ISA also has responsibilities regarding MSR. Work is currently underway to develop these environmental requirements, but necessarily this will focus on ISA's particular remit regarding minerals in the Area, as defined under UNCLOS.
**Shipping / the International Maritime Organization (IMO):** Under the IMO regime, there is provision for the designation of ‘Special Areas’ which allow for the adoption of special mandatory methods for the prevention of vessel-sourced pollution. Two Special Areas extend beyond areas of national jurisdiction, one in the Antarctic and Southern Ocean, and one in the Mediterranean. There is also provision for the designation of Particularly Sensitive Sea Areas (PSSAs) – areas which need special protection through the IMO because of their significance for ecological, socio-economic or scientific reasons, and which may be vulnerable to damage by international shipping activities. The IMO has also developed a range of agreements which manage impacts on the marine environment arising from shipping. Some joint working with other United Nations (UN) agencies has been established, but this does not appear to have broadened the focus of IMO work.

**Conservation / the CBD:** The CBD has an important role in relation to ABNJ, which complements the work of fora such as the UN General Assembly. In this regard, its Articles 4 and 5 set out the jurisdictional scope and responsibilities of its Contracting Parties, which are to be implemented consistent with UNCLOS. Parties to the CBD, under its marine and coastal work programme, are committed to ‘the establishment by 2012 of a global network of MPAs, building upon national and regional systems.’

The CBD can be seen as having a particular role in contributing to international action on the protection of sensitive and representative ecosystems in ABNJ, including through the establishment of MPAs. This role would usefully focus on establishing scientific, precautionary and ecosystem-based information and guidance, including through the development of ecological criteria, and the establishment of a register of representative networks of MPAs. However, at least within the context of conserving biodiversity in ABNJ, it has proved difficult to position the CBD in an effective way in terms of engaging with other fora representing particular sectors.

**Regional Seas Conventions:** A few Regional Seas Conventions, such as the OSPAR Convention for the Northeast Atlantic and the Barcelona Convention in the Mediterranean, are taking forward work on MPAs in ABNJ. However, as with RFBs, their scope is constrained and their coverage of ABNJ is limited. This limits their ability to meet global conservation objectives.

### 1.2 Governance challenges in ABNJ

#### 1.2.1 The duty to co-operate

Under UNCLOS, effective implementation of provisions of relevance to conservation in ABNJ rely on the duty of States to cooperate with respect to a significant number of issues in the high seas, however such provisions do not specify the legal content of the duty. Although the UN Fish Stocks Agreement (UNFSA) provides some clarification regarding the ‘duty to cooperate’ in the context of fisheries, a definitional approach to how the duty can be made operational is lacking for other sectors. Under UNFSA, RFMOs are the main mechanism through which States are to cooperate regarding conservation and management of straddling and highly migratory fish stocks. Only States Parties which ensure that their vessels fish in conformity with the applicable RFMO measures are to have access to the resources (Article 8.4).

As with the general obligations to co-operate under UNCLOS, the details of the obligation under the CBD are left to the individual judgement of States Parties. Article 5 of CBD requires Parties to cooperate, directly or through competent international organisations, concerning ABNJ as well as other matters of mutual interest for conservation and sustainable use of biological diversity, but it also does not clarify the terms by which Parties should co-operate. Therefore, although the Article provides some basis on which to work, the provision is considered to be too general for many applications. Some guidance is provided by the provisions of the CBD for biodiversity in areas within national jurisdiction (eg, on the methodology for conservation and sustainable use), which could have some applicability in developing plans to conserve and sustainably use biodiversity in ABNJ.
1.2.2 Managing a common resource

The regime for ABNJ under UNCLOS establishes a regime for the ‘high seas’ (Part VII) and one for the Area (Part XI). Marine ABNJ are considered to be the ‘global commons’ open for legitimate and reasonable use by all States, and may not be appropriated to the exclusive sovereignty of any one State.

In ABNJ there is potential for conservation measures put in place through an agreement between States to be undermined by non-parties to that agreement. This gives rise to the notion of ‘free-rider States’ - those who do not abide by the rules and consume more than their ‘fair share’ of a resource. In addition, the physical distance involved in enforcing multilateral regimes in ABNJ is also a key factor to be considered in combination with the natural inclination of coastal States to prioritise the protection of their own offshore over high seas enforcement activities.

The failure of States and the international community to regulate and manage their use of a global commons is expressed in Hardin’s theory of the ‘tragedy of the commons’. The essence is that individual exploiters of a commons have little individual incentive for preservation of those commons: the reward is on a first-come first-served basis with the knowledge that if the individual does not exploit the resource on an immediate basis, someone else will.

Hardin was describing an ‘open access’ regime where there is no overarching authority to govern compared to a commons where authority rests with the wider international community. Although there is no single authority responsible for regulation of activities in marine ABNJ, as has been shown, efforts have been made under a range of instruments to set a certain standard of conduct and to regulate some activities (eg, UNFSA and IMO instruments). However, their effectiveness is frequently undermined by ‘free-riders’ in the absence of an effective compliance and enforcement regime.

1.2.3 Freedoms of the high seas: Potential for abuse?

Under UNCLOS, the high seas are open to all States and certain ‘freedoms’ include inter alia navigation, overflight, fishing and MSR. The freedoms are to be exercised under the conditions provided for in UNCLOS and other rules of international law with due regard for the interests of other States and with respect to activities in the Area.

The freedoms are not absolute as they are conditioned by obligations to not cause damage to the environment of other States arising from customary international law and the general obligations under UNCLOS to protect and preserve the marine environment; to conserve high seas living resources; to prevent, reduce and control pollution of the marine environment; and to fulfil their duties to cooperate with other States. If States adopt measures that are inadequate to ensure the conservation and sustainable use of marine biodiversity and if they do not cooperate with other States, they are not exercising high seas freedoms with due regard for other States interests or for their obligations.

For the high seas freedoms of MSR, submarine cable and pipeline laying, and the construction of artificial installations, it is only the general obligations of UNCLOS to protect and preserve the marine environment, and the general restrictions in Articles 87 and 88 that apply. There are no internationally agreed standards to regulate their operation or potential environmental impact, and Article 206 on requirements for assessing potential effects of activities is rarely implemented.

Exercise of high seas freedoms is also constrained by the rights of other States to utilise the high seas and exploit resources. Qualifications have also been made by subsequent agreements, especially in sectoral instruments which deal with specific issues such as the conservation and management of highly migratory and straddling fish stocks in UNFSA and other fisheries agreements, and IMO instruments relating to shipping. Such qualifications have tended to be achieved where high seas activities have impacts on other States rather than being based solely on conservation objectives. One of the main drivers of the UNFSA process was that distant water fishing activities directly conflicted with interests of coastal and other fishing States.
1.2.4 Reliance on flag State jurisdiction for enforcement

Under UNCLOS ‘flag States’ have primary responsibility for enforcement of international rules and exclusive jurisdiction over vessels flying their flag. Those States that do not exert effective control over ships flying their flag in accordance with UNCLOS are often referred to as ‘flag of convenience’ or ‘flag of non-compliance’ States. Some fishing vessels continue to change their flag State confirming that the use of ‘flags of convenience’ continues. An enforcement regime that relies on flag States can be ineffective when the interests of States conflicts with conservation and sustainable use objectives, where there is lack of political will, or when States have limited capacity or resources to manage the actions of their vessels or nationals.

At the 6th meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (UNICPOLOS) it was recognised that the ‘lack of effective implementation and enforcement of flag State responsibilities is still a critical shortcoming in the effectiveness of overall oceans governance.’ This has serious consequences for not only regulation of fisheries but more broadly for the application and effectiveness of conservation measures and an ecosystem-based approach through the range of sectors operating in marine ABNJ.

Under UNFSA, flag States have responsibility to ensure that their vessels comply with regional conservation measures agreed by RFMOs, and provision is made for monitoring, compliance and enforcement. In addition a Contracting Party which is not a member of a RFMO/A is not discharged from the obligation to cooperate with the conservation measures established by the RFMO/A. In addition to its provisions for non-access to non-cooperating States Parties, the UNFSA regime is significant in that it provides for actions by member States and port States to enforce obligations on vessels of other flag States. Nevertheless, States have seen the need to further develop the role of port States in monitoring, control and enforcement.

The 1993 Food and Agriculture Organization of the United Nations (FAO) Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (Compliance Agreement) is intended to address Flag State responsibility and outlines provisions in relation to non-parties. These include the obligation on Parties to encourage non-parties to adopt laws and regulations consistent with the Agreement; to cooperate consistent with international law to ensure that non-parties do not engage in activities that undermine the effectiveness of conservation and management measures; and to exchange information regarding non-party vessels. Ratification of the Agreement has been limited.

1.2.5 Difficulties with enforcement provisions in ABNJ

ABNJ are remote which makes enforcement of activities logistically difficult and expensive for a State to manage activities of its nationals operating in an area (often) well outside its national jurisdiction. As described in the previous section, due to reliance of the compliance and enforcement regime on flag State jurisdiction, where legal measures do exist, lack of political will or a lack of adequate capacity to monitor and control the activities of flag vessels also compromises the effectiveness of enforcement in ABNJ. In addition for coastal States enforcement activities in their own offshore zones will take priority over high seas enforcement activities particularly if they have limited resources and capacity for offshore enforcement activities.

1.2.6 Limited capacities of developing countries

Developing countries often do not have sufficient resources to fulfil their obligations which, compromises the effectiveness of regional or international instruments. For example, RFBs with most members from highly developed countries in North America and Europe (e.g., Northwest Atlantic Fisheries Organisation (NAFO) and Northeast Atlantic Fisheries Commission (NEAFC)), have relatively well-funded and effective enforcement programs compared to RFBs with a significant proportion of members from developing countries such as the Fishery Committee for the Eastern Central Atlantic.
1.2.7 Conclusions

There are internationally agreed measures that seek to mitigate at least some of the impacts of activities such as shipping, fisheries and dumping. Other activities have not yet been addressed at the global level or the detail of the legal regime is insufficient.

Apart from the general obligations under UNCLOS to protect and preserve the marine environment and the general obligations relating to the high seas and the Area, the mitigation and regulation of potential threats in ABNJ from activities such as the use of submarine cables and pipelines, bio-prospecting and MSR have not yet been resolved by the international community. In addition some potential activities in the oceans to mitigate climate change were not recognised when UNCLOS was initially drafted. It is likely that further activities to exploit or utilise marine resources ABNJ will be proposed in the future.

There is a need for improved implementation of, and better coordination between, current legal instruments applicable to ABNJ. Additionally, there are gaps and shortcomings in the current legal framework and in the institutional governance structures, especially in relation to the consideration and assessment of measures to conserve marine biological diversity to fully reflect the evolving understanding of ecosystem-based approaches.

There would appear to be no global instrument or organisation that is competent to consider effectively the range of threats impacting on biodiversity conservation in ABNJ in a global and cross-sectoral manner. And there would appear to be no governance structure in place to facilitate co-operation and coordination of activities across ABNJ. In the light of this, it is worth considering the utility of an additional, complementary instrument, such as an Implementation Agreement to fill these needs.
A way forward for co-ordination and co-operation: An implementation agreement to address the challenges of biodiversity conservation in ABNJ

2.1 Overview

In the light of the previous analysis, key considerations in considering an Implementation Agreement can be seen in terms of whether it should be used as a tool to address gaps in:

− implementation, so further defining general obligations under UNCLOS,
− regulation of issues not sufficiently regulated, or
− governance, such as institutional problems and lack of participation.

In practice, an Implementation Agreement properly described should be capable of embracing a combination of these various types of gaps. Accordingly, such an Agreement can be characterised as representing a deepening and facilitating of UNCLOS obligations, without necessarily bringing in new principles of international law or new legal elements. This approach recognises that the provisions stated in the preamble to UNCLOS regarding ‘protection and preservation of the marine environment’, ‘equitable and efficient utilization of their resources’ and ‘cooperation’ (and which are further referenced in various parts of the Convention) are still lacking in detail with regards to specific issues in ABNJ.

In short an Implementation Agreement could add real value by giving substance to these provisions of UNCLOS, improving co-ordination between sectors, and clarifying responsibilities to ‘protect and preserve’ based on modern developments. In particular, the application of cross-sectoral integrated management and co-operation to make operational an ecosystem-based approach in ABNJ, with a focus on conservation and sustainable use of natural resources, would be a significant step forward. This would contrast with the current largely un-coordinated framework.

The following sections develop these themes, looking at the possible objective for an Agreement, its scope, guiding principles, and the substance of the possible activities and issues which it might cover.

2.2 Objective

The objective of an Implementation Agreement could be:

To ensure the protection and preservation of biological diversity in marine ABNJ and to ensure sustainable and equitable use of resources through application of ecosystem-based approaches.

2.3 Geographic scope

The proposed aim of a potential Implementation Agreement could be to address critical gaps in the legal and governance regime for biodiversity conservation in marine ABNJ and to provide a framework for integrated, cross-sectoral ecosystem-based management in such areas. Therefore, it is suggested that an Agreement should focus on issues relating to conservation and sustainable use of natural resources and the environment in ABNJ only. However, a ‘compatibility requirement’ regarding conservation and management measures of coastal States would be useful to achieve an integrated ecosystem approach across the marine environment.

The scope of an Implementation Agreement was indeed described in the European Union (EU) proposal as being for ‘conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction.’
2.4 Guiding principles

An Implementation Agreement could incorporate and thus help embed in marine management the following guiding principles:

Application of ecosystem-based management approaches and area-based conservation measures:
The Agreement could further develop and make operational ecosystem-based approaches. This could be achieved through application of marine spatial planning principles such as a shared set of conservation and sustainable use objectives agreed by stakeholders and a framework for adaptive management that includes impact assessment and monitoring. Marine spatial planning also provides a mechanism to deliver international commitments for a network of MPAs, to achieve higher levels of protection for key areas, which could then be integrated with other spatial management tools and species-based protection tools.

Precautionary approach: Decision-making processes and the application of conservation measures should be based on a precautionary approach. The precautionary approach has been presented and interpreted differently in a range of instruments and has been explicitly incorporated into high seas marine resource conservation through the UNFSA and into marine pollution prevention via the 1996 London Protocol to the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter. The approach is especially applicable in the high seas as our knowledge about the ecosystems and effects of human impacts is lacking. In applying the precautionary approach there could usefully be a reverse burden of proof whereby those undertaking an activity are required to demonstrate that the activity is sustainable and will not have undue and deleterious impacts on related ecosystems as well as the resources that are being exploited.

Use of the best available scientific and other technical information: Measures in ABNJ and prioritisation of actions should be based on the best available scientific information. This requires assessment of the gaps in scientific knowledge, a mechanism for collaboration between scientists, sharing of data and information, capacity building and technology transfer, as well as a coordinated and strategic approach to developing research priorities. Scientific research is required to underpin EIA, to inform the adaptive application of conservation measures, and to enhance the development of criteria for monitoring. As conservation measures are applied in areas of resource use with a commercial value, decisions relating to ABNJ should also consider socio-economic information to encourage the effectiveness of compliance and application of economic incentives.

Adaptive conservation management: Adaptive management allows decision-making to be able to respond to changes and inherent levels of uncertainty. Knowledge relating to the impacts of human activities and ecosystem processes is lacking and due to the dynamic nature of ecosystems (and human impacts) there is a need for on-going monitoring, review and adaptation of the application of conservation measures and management regimes.

Sustainable and equitable use of marine resources for the benefit of present and future generations: This is especially applicable in ABNJ where a balance is required between the rights and interests of individual users and those of the international community. Management of resources should result in such resources being used in a sustainable manner to maintain the biological diversity to meet the needs of present and future generations. This requires an effective compliance and enforcement regime and effective engagement by relevant States and stakeholders. In addition the disparity in costs and benefits divides the perceived interests by States with some paying unwanted costs (or not gaining sufficient benefit) and others benefiting at the expense of the former. Therefore an Implementation Agreement could provide Parties with mechanisms for the fair sharing of benefits derived from exploitation of specific resources within the marine environment in ABNJ.

Environmental Impact Assessment: EIA supports the precautionary approach by providing a tool for those undertaking the activity to demonstrate that the activity is sustainable. There is scope to improve coordination of existing obligations, to facilitate a more integrated approach to environmental assessments and
to provide for assessment of cumulative impacts (EIA is discussed in more detail below).

Principle of Common but Differentiated Responsibilities: There is a common responsibility of all States to protect the marine environment in ABNJ. Nevertheless, there are real differences in the capacities and current exploitation of the resources in marine ABNJ by different States and private entities. Although the principle provides for asymmetrical rights and obligations between developed and developing countries regarding environmental standards, the critical component will be to ensure that developing countries can come into compliance with the regime over time. This will require international assistance, including financial aid and technology transfer and support through capacity building initiatives.

Polluter or user pays principle: The principle is a mechanism by which those benefitting from exploitation of a resource pay for the associated costs of environmental damage or resource depletion. The principle can be implemented through various means that can provide incentives for implementing more environmentally sensitive practices and can generate revenue to recover costs associated with administration of resource management policies.

Compatible and consistent with international law: The Agreement should build on the existing legal regime for ABNJ and, if it is developed, will need to be applied in a manner which is compatible and consistent with international law, in particular the relevant provisions of UNCLOS and relevant global and regional agreements.

Duty to cooperate: For conservation to be effectively implemented, coordination is essential across sectors and at a range of levels (ie, international and regional). Therefore, institutionalised mechanisms for ensuring such cooperation (eg, procedures for supervising implementation and reporting) are required. Provisions in relation to non-parties, engaging like-minded States, clear definition of the ‘duty to cooperate’, capacity building initiatives, and a robust compliance and enforcement regime along with a coherent institutional framework are some of the key factors to facilitation of cooperation by States.

Other potential guiding principles

Transparency and accountability: To minimise the likelihood of disputes and to promote international cooperation it is critical that decision-making processes are conducted in a manner that is transparent and accountable. This could be fostered by the requirement for reporting by key stakeholders, by allowing access to information and participation by observer organisations in meetings and allowing competent non-governmental organisations (NGOs) to play a role in compliance.

Peaceful settlement of disputes: In accordance with the UN Charter there will be an obligation on Parties to an Implementation Agreement to settle any dispute between them concerning the interpretation or application of the Agreement by peaceful means. Therefore the Agreement should provide mechanisms to promote compliance and for dispute resolution when required.

2.5 Substantive issues to be covered by an Implementation Agreement

In considering the themes outlined above a number of priority issues can be identified, namely:

(i) an integrated ecosystem based approach through spatial planning and networks of MPAs in ABNJ;
(ii) Strategic Environmental Assessment (SEA) and EIA;
(iii) an articulation of how enforcement would occur.

In addition, the following issues require further consideration in the context of an Implementing Agreement:

(iv) regional fisheries reform,
(v) MSR, and
(vi) MGR - bioprospecting.

Within all of these issues, the need for and importance of capacity building is a common theme. These issues are looked at in some depth below (in the order noted above), recognising that in some cases the arguments
are relatively new such as in relation to MGR, where the opportunity is taken to explore some emerging considerations and thinking.

(I) Implementation of an integrated ecosystem-based approach

An ecosystem-based approach is recognised as a key mechanism for biodiversity conservation and sustainable development and was highlighted in the EU proposal as one of the elements that should be included in an Implementation Agreement. Such an approach requires that impacts and cumulative effects of various activities impacting on an ecosystem are considered and managed in an integrated manner across different sectors. Implementation of the approach in ABNJ under the current legal regime is hampered by insufficient cross-sectoral coordination. Although EIA is referred to in global and regional agreements, the requirement for prior assessment before an activity is conducted is not always stipulated and such assessments are largely based on analysis of activities from a single sector. Thus cumulative impacts from all sectors and comparisons between sectors cannot be determined. Therefore, if an Implementation Agreement is to utilise such an approach, mechanisms for sufficient coordination and integration of EIA practices will need to be considered. The lack of cross-sectoral co-ordination in the application of area-based measures for conservation purposes also prevents application of an ecosystem-based approach. MPAs can help fill this gap.

Marine protected areas

The WSSD in 2002 called for action to maintain the productivity and biodiversity of important and vulnerable marine areas both within and beyond national jurisdiction. It also set a timetable for action calling for adoption of an ecosystem-based approach by 2010 and the establishment of representative networks of MPAs by 2012. Parties to CBD have committed to a work programme that includes the establishment by 2012 of a global network of MPAs. However currently there is no legal regime in place to establish and manage representative networks of MPAs. This is why the EU proposal regarding an Implementation Agreement refers to the establishment and regulation of MPAs as one of the elements that could be included. An Implementation Agreement could establish a platform for coordination and cooperation at the global and regional level so that there is much greater coherence and integration regarding application of area-based measures including the global network of MPAs. CBD could be a central focal point to consolidate the work on development of identification criteria and for establishing the scientific basis for representative networks of MPAs in ABNJ.

Marine spatial planning

While MPAs are a very useful conservation tool in helping embed the ecosystem approach, it should also be recognised that designation of such areas are based on our current best available knowledge, estimates and values, and that areas outside designated protected zones are also biologically significant. Therefore it is also important to have mechanisms which address environmental impacts that are acting on the broader marine environment and to not solely rely on MPAs to achieve conservation and sustainable use objectives.

Marine spatial planning provides a tool to deliver ecosystem-based approaches, to co-ordinate sectoral area-based measures eg, those implemented through the IMO, under the Convention on Migratory Species, and by RFBs - and to integrate establishment of ecologically coherent representative networks of MPAs. However further work is required to determine the most effective regulatory and governance regime for marine spatial planning in ABNJ. An Implementation Agreement could potentially provide a mechanism to co-ordinate the establishment of areas that require special protection to conserve marine ecosystems or resources, promoting international cooperation and collaboration at global and regional levels in this effort. The CBD could be a potential focal point for the global consideration and discussion of biodiversity conservation measures for ABNJ recommended by relevant bodies.

Assessment and a better understanding of cumulative effects of all activities through SEA is a pre-requisite to spatial planning. This offers a more strategic, integrated and cost-effective approach to compliance and enforcement activities; the conduct of scientific research and monitoring; and a framework for
stakeholders to consider and plan for impacts of new and emerging activities.

(ii) Strategic Environmental Assessment and Environmental Impact Assessments

SEA is a tool for the assessment of not only environmental but also social and economic impacts of projects, programmes and policies on a broad scale. The International Association of Impact Assessment has developed performance criteria for SEA that set out the main principles of good practice. SEA could be provided for in an Implementation Agreement as a mechanism to facilitate implementation of conservation measures and to promote sustainable development.

EIA prior to approval of an activity in national jurisdictions is a fundamental component of sustainable resource use and development. The process gives scope for denying an activity or more usually determines conditions for how such an activity can be conducted to mitigate any potential impacts and to provide for monitoring and reporting.

Despite the basic requirements in UNCLOS and the CBD, there are very few international instruments that require the identification and prior assessment of potential threats from high seas activities before they are conducted. The process for prior impact assessment of seabed activities in the Area is formalised and the ISA has developed and is continuing to develop regulations and guidelines with respect to its activities. In fisheries, UNFSA Parties are required to assess the impact of fishing, other human activities and environmental factors on target stock as well as those species that depend on the target stocks or are within the same ecosystem and to adopt conservation measures where required. Special considerations are required for new or exploratory fisheries including the adoption of cautious conservation and management measures (including catch limits) and application of the precautionary approach to ensure the long-term sustainability of stocks.

The EIA provisions under the CBD and those under UNCLOS relating to pollution are quite general and open to interpretation. In ABNJ, CBD Parties are required to assess the consequences of their actions and to conduct EIA of proposed projects under their jurisdiction or control ‘likely to have significant adverse effects’ on biodiversity, and ‘to introduce appropriate arrangements’ for programmes and policies likely to have significant adverse impacts on biodiversity, to ensure that environmental consequences on biodiversity ‘are duly taken into account.’ The lack of clarity in Article 14 regarding the scope of the assessment, the activities to be assessed and the extent of the obligation (ie, ‘as far as possible and appropriate’) is left to the individual judgement of Parties.

Under Articles 204-206 UNCLOS, States are required ‘as far as practicable’ to monitor the effects of any activity they permit or engage in, to determine whether it is likely to cause marine pollution, and to assess the potential effects of activities under their jurisdiction or control which may cause substantial pollution of, or significant or harmful changes, to the marine environment. Such results are to be communicated through reports to competent international organizations and made available to all States.

It is not envisaged that an Implementation Agreement would actively regulate all new and emerging activities in ABNJ, but it would be extremely beneficial for there to be notification requirements to a relevant global body that could consider how such activities could be addressed.

Any regime would have to be closely linked to environmental assessments already required under UNCLOS and CBD, though application of EIA through an Implementation Agreement could both meet and elaborate on the CBD and UNCLOS requirements. The requirement for precaution and the reverse burden of proof on impact assessment for high seas bottom fishing provided for in the 2006 UNGA Fisheries Resolution is an example of how such an approach could be considered in relation to impact assessment under an Implementation Agreement. Application of public participation in the EIA process could also be considered for use in an Implementation Agreement to promote transparency and to assist with compliance.
(iii) Enforcement

To achieve the objectives of an Implementation Agreement there is a need for it to be supported by a robust compliance and enforcement regime. Effective compliance and enforcement requires a toolbox of mechanisms especially due to problems arising from reliance on flag State jurisdiction and the lack of ability to enforce compliance by non-parties regarding area-based and other conservation measures. An analysis of the many relevant enforcement initiatives currently being undertaken could clarify how an Implementation Agreement could add value to current initiatives. In addition such a review could highlight whether elaboration of UNCLOS enforcement provisions might be warranted taking into account new instruments, new technologies, and new approaches.

(iv) High seas fisheries and regional fisheries reform

Although UNFSA is the most extensive attempt to regulate high seas fisheries, many high seas fisheries are not specifically covered in all regions such as discrete stocks, squid, sharks and non-tuna fish stocks. It has been proposed that a protocol to UNFSA or a new agreement with the same effect could be developed to cover all fish stocks not directly covered by UNFSA and to enable the adoption of stringent precautionary rules for new and emerging fisheries and activities that are not already covered by RFMO conservation and management measures.

Reforms to RFMOs would require renegotiation of some RFMO mandates to achieve greater consistency between RFMOs, comprehensive geographic coverage and broadening of the scope to include conservation of biological diversity and application of the precautionary approach. Although there are some efforts underway to progress reform of RFMOs, it remains to be seen the extent to which such actions will be implemented.

It has been proposed that an Implementation Agreement could serve as regulatory regime by default for areas where there are no (functioning) RFMOs or where they are not addressing biodiversity concerns (recognising that such a mechanism would be used to complement and not to undermine the work of RFMOs). Such possibilities could include: (1) areas where there are no RFMOs; (2) areas where an RFMO exists but is not competent to regulate all types of marine living resources harvesting; and/or (3) areas where a competent RFMO is not addressing the full range of biodiversity concerns.

Where an RFMO exists, one suggestion is that implementation of marine spatial planning could require engagement by RFMOs and consideration as to how RFMOs can help implement the plan as well as how conservation measures adopted by RFMOs could be integrated within the plan. This approach combined with strengthening cooperation between RFMOs, as discussed above, could facilitate greater consistency and improved application of conservation measures by RFMOs and better integration across sectors. An Implementation Agreement could make provision for consultative links between the overarching global body dealing with biodiversity conservation in ABNJ and RFMOs, FAO and global and regional bodies with sectoral or conservation interest or competence in ABNJ.

Rather than focussing on specific provisions designed to deal with governance gaps in UNFSA or to improve effectiveness of RFMOs, an Implementation Agreement could provide added value by establishing the framework for an integrated approach to conservation and sustainable use of resources of which the involvement of RFMOs will be an important element.

(v) Marine scientific research

In ‘The Area’, UNCLOS requires that marine scientific research is to be carried out for the benefit of mankind as a whole. MSR activities in the Area can not constitute the legal basis for any claim to any part of the marine environment or its resources. Additionally Parties are to promote international cooperation with a view to strengthening the research capacity of developing countries and less technologically developed States. They are to effectively disseminate research results and analyses and promote and encourage the transfer to developing countries of marine technology and scientific knowledge related to mining in the Area.
The ISA may also carry out MSR concerning the Area and its resources; shall promote and encourage the conduct of MSR in the Area; and shall coordinate and disseminate the results of such research and analysis when available. The ISA carries out this responsibility through workshops, seminars, and a new trust fund to promote participation by developing countries in MSR. In the high seas, MSR is a high seas freedom and may be conducted by 'all States with due regard for the interests of other States...with due regard for the rights under this Convention with respect to activities in the Area.'

The availability and application of scientific information is critical for the implementation of an ecosystem-based approach. Therefore any provisions in an Implementation Agreement relating to scientific research should balance the need to ensure that environmental impacts of research are minimised, with the need to facilitate and promote research on the marine environment and assessments of the impacts of human activities.

The ability of the international community to assess the environmental effects of MSR as required by the environmental protection provisions of UNCLOS is limited, although there is ample scope for development of a governance mechanism to implement the environmental protection and MSR provisions together. For example Article 197 requires States to cooperate at a global and regional level to formulate rules, standards and procedures for the protection and preservation of the marine environment. An Implementation Agreement could provide the necessary framework for internationally agreed standards for EIA for MSR to ensure that the environmental impacts of research are assessed and minimised.

The sharing of scientific information, collaborative research efforts and coordination of scientific research helps to minimise duplication and more efficiently utilises research resources to progress knowledge. UNCLOS requires States and competent organisations to publish and disseminate information. It would be useful if these requirements could be further elaborated in an Implementation Agreement to more clearly activate the responsibilities under such provisions. Similarly, mechanisms to provide for training and participation of developing country scientists to build on existing UNCLOS provisions for capacity building and collaborative research could be useful.

To ensure that any provisions developed on MSR are practical and not too burdensome but also are able to establish robust standards for EIA, information sharing and cooperative and collaborative research processes, it is critical that the scientific community are actively engaged and involved in the development of any MSR provisions.

(vi) MGR - Bioprospecting

There is no universally agreed definition for 'bioprospecting', the term is not used or defined in the text of the CBD or UNCLOS, and the expression can potentially cover a broad range of activities. An information paper prepared by the CBD Secretariat has defined bioprospecting as:

‘the exploration of biodiversity for commercially valuable genetic and biochemical resources... the process of gathering information from the biosphere on the molecular composition of genetic resources for the development of new commercial products.’

‘Genetic resources' are defined in Article 2 of CBD as genetic material (any material of plant, animal, microbial or other origin containing functional units of heredity) of actual or potential value. In the context of the CBD, genetic resources are biological resources needed or used for their genetic material and not for their other attributes or for other purposes.

With increasing scientific and commercial interest in living organisms found in association with active hydrothermal vents and cold water seeps of the deep seabed, there are concerns regarding potential impacts of bioprospecting activities. More specifically the concerns relating to bioprospecting include:

1) Potential impacts if the collection rate of species collected for biological samples for genetic research is unsustainable;
2) The extent to which there should be sharing of financial and other benefits arising from the utilisation of MGRs;

3) Potential environmental impacts that may occur in the collection of biological samples for genetic research.

A range of possibilities exist for addressing the concerns highlighted above and stakeholder interests, including inclusion of these issues within an Implementation Agreement.

**Potential inclusion of bio-prospecting within an Implementation Agreement**

It is thought that bioprospecting and exploitation of MGRs in the water column falls under the regime of the high seas, whereas there is debate as to the extent that the Part XI regime for the Area applies to MGRs of the deep-sea bed. The ISA under Part XI has no direct authority to regulate the exploitation of biological resources in the Area because the term ‘resources’ is defined as being non-living resources. If the issue of bioprospecting is to be included within an Implementation Agreement, the potential role of the ISA in such a regime also needs to be discussed. Legally it would be possible to broaden the mandate of the ISA which would reduce the need for development of a new institutional structure for regulation of bioprospecting for MGRs sourced from the deep seabed.

**Potential sharing of financial benefits**

It is argued that financial and economic benefits derived from the utilisation of MGR should be shared on an equitable basis rather than kept for the benefit of the few technologically advanced States or entities that are in a position to undertake bioprospecting activities (especially of the deep seabed). A number of States have suggested that a benefit sharing regime for deep-seabed genetic resources could be included in the mandate of the ISA given the symbiotic relationship of the biodiversity with the deep seabed and its mineral resources.

If bioprospecting for MGR is considered within the scope of an Implementation Agreement, the interests of developing countries regarding the sharing of financial benefits arising from the exploitation and utilisation of such resources should be considered, while recognizing the need to also stimulate investment and innovation in scientific research. Under a financial benefit sharing system, it might be necessary to draw a distinction between ‘pure’ scientific research and applied scientific research (bioprospecting) activities and this distinction may prove difficult. Another option would be to simply provide for financial or profit-sharing arrangements if and when commercial products are ultimately developed from bioprospecting activities from ABNJ.

In this context, the International Treaty on Plant Genetic Resources for Food and Agriculture, in particular through its Standard Material Transfer Agreement provides an example of benefit sharing system that, inter alia, provides for payment into an international fund to help farmers to conserve and sustainably utilize the source material. Equally, if it is possible to trace the origin of genetic material to ABNJ, applicable instruments might be the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the Budapest Treaty on the International Recognition of the Deposit of Micro-organisms for the Purposes of Patent Procedure and Regulations. Moreover, a condition of the grant of a patent could be that a percentage of royalties from profitable commercial products derived from MGRs could be allocated to a ‘conservation trust fund.

**Sharing of knowledge/access to technology/training and capacity building**

The sharing of knowledge and technology transfer in treaty negotiations such as UNCLOS has been problematic. The CBD has attempted to deal with these issues and its work could inform development of a regime under an Implementation Agreement for sharing of knowledge, technology transfer and training and capacity building in relation to bioprospecting (and potentially for other issues as well).

Capacity building through scientific, educational, technical and other assistance is an important component of technology transfer. UNCLOS provides for capacity building activities relating to technology transfer. This includes facilitating access of developing
States to relevant technology (under fair and reasonable terms and conditions) and providing opportunities for developing States with regards to training so that they can fully participate in activities.

*Management of potential impacts of bioprospecting*

Potential adverse environmental impacts from bioprospecting could be addressed through:

(a) prior impact assessment, regardless of differences between bioprospecting and ‘pure’ scientific research, or

(b) self-regulation by industry and research-associated groups. An example is the Code of practice for scientific activities at and near hydrothermal vents developed by the Inter-Ridge community of marine researchers, which could contribute to minimizing environmental impacts. This is a voluntary instrument only at this stage but such initiatives could inform development of regulations.

2.6 Conclusion

The previous sections have outlined what an Implementation Agreement might look like with a focus on its role as a co-ordinating and co-operative mechanism, which by embodying principles, processes and tools such as precaution, impact assessment and ecosystem management could also act as a catalyst for improvements generally in oceans governance.

However, if this role and focus is to be successful an effective relationship will need to be described with other bodies. This will also require decisions to be made as to the most appropriate institutional arrangements - whether there is a need for a global body to administer an Implementation Agreement or whether the Agreement will be implemented through existing arrangements. This is the subject matter of the next part.
3 Institutional arrangements and relationships between an implementation agreement and other bodies

3.1 Overview

The key to implementing an ecosystem-based approach is horizontal and vertical integration and coherency of the institutional framework. The added value of an Implementation Agreement could be to reduce the fragmentation and sectoral approach that currently exists by formalising coordination and collaboration between key organisations and instruments. For example, co-operation with specific instruments or organisations such as the CBD or FAO could be explicitly stated within the text of an Agreement. Co-operation will be required at various levels (global-global, global-regional and regional-regional interactions) and an Implementation Agreement would need to have provisions regarding such relationships.

Apart from ensuring that actions under an Implementation Agreement are more efficient and effective, co-ordination ensures that those States which may not be party to the UNCLOS regime would still be informed, involved and contributing to the conservation and protection of the marine environment in ABNJ through other mechanisms. There would also need to be consistency and coherence regarding regional agreements that may be developed to implement the objectives of an Implementation Agreement at the regional level.

States might need to take into account the relevant provisions of an Implementation Agreement when interpreting or applying other treaties to which they are parties or when entering into other international obligations. An Implementation Agreement, moreover, as per UNFSA could be open to all States without the necessity to become a party to UNCLOS.

The Agreement could also provide for the explicit safeguarding of the rights and obligations under UNCLOS, as well as under the CBD and other conventions. As with the CBD there could be a caveat to the effect:

'except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity' (Article 22.1)

Such a requirement would also be in line with the obligation under Article 192 of UNCLOS to preserve and protect the marine environment.

3.2 Institutional arrangements:

The scope and content of an Implementation Agreement will determine the most appropriate institutional arrangement or mechanism. It is critical that in developing an Implementation Agreement the role of existing organisations capable of carrying out agreed functions is considered to ensure appropriate linkages are facilitated. Where there are gaps in the institutional arrangements, the first step should be to determine whether there is scope for the broadening of mandates of existing organisations. If it is determined that new institutions are required there needs to be clear competencies and consultative links with regards to other institutions to avoid overlap and duplication.

Implementing an ecosystem-based approach for ABNJ effectively through an Implementation Agreement could require identification of a responsible mechanism or body (or formation of a new one) at the global level. This would need the capacity to ensure coordination between the sectoral institutions at the global and regional level, to participate in international processes, and to review and assess compliance and implementation of an Implementation Agreement.

An Implementation Agreement could establish a global authority that brings together sector-based organisations (eg, IMO, FAO) to agree on conservation and sustainable use objectives as well as spatial areas for
enhanced protection: implementation of management measures would then be conducted by sectoral organisations. Requirements for reporting to a global body on outcomes of conservation and area-based measures could provide a useful mechanism for sharing of information and experiences between regions.

**Regional delivery**

In practice international marine environment agreements are generally implemented by States or groups of States at a regional level and this could be the likely situation for an Implementation Agreement. This could work by the institutional mechanism under an Agreement being able to endorse biodiversity conservation measures recommended by regional bodies for ABNJ. This would assist in securing widespread commitment to biodiversity conservation measures in ABNJ. It could be supported by regional agreements and institutions responsible for the implementation of conservation and sustainable use objectives, taking into account the region-specific issues and the different environments, stakeholders and activities. Regional arrangements could apply ‘model agreements’ to maintain some levels of consistency between regions and regional organisations could undergo independent performance assessments.

Another aspect to regional delivery is the potential role for the regional seas arrangements. The Regional Seas Programme was established in 1974 to encourage sustainable management and use of the marine environment by engaging neighbouring countries in comprehensive and specific actions to protect their shared marine environment. More than 140 countries participate in 13 Regional Seas programmes established under the auspices of the United Nations Environment Programme (UNEP), with 6 of these directly administered by UNEP. There are also five independent Regional Seas Conventions, which participate in the global meetings of the Programme to share experiences and exchange policy advice.

Four of the regional seas arrangements/conventions have high seas areas, and there is clear scope for these to assist in the work of an Implementation Agreement. Moreover, it is recognized that there should be strengthened integration, coordination and cooperation between RFBs and regional seas arrangements (as well as with other international and fisheries organizations). The regional seas arrangements may be able to provide a forum for coordination and integration of the activities of not just fisheries bodies but also other sectors as well. Potentially where current regional seas arrangements and regional fisheries jurisdictions overlap, greater collaboration could be formalised under the auspices of an Implementation Agreement.

UNEP could be given the mandate to work to establish new organisations in areas where there are gaps in geographic coverage to manage biodiversity conservation.

**Scientific and technical input:**

Scientific monitoring, assessment and reporting are required to inform decision-making and to assess the effectiveness of conservation measures. Currently such scientific activities are undertaken through a disparate range of instruments at a range of levels but usually with a focus on sector-based objectives and implementation. As highlighted above, existing institutional arrangements should be used wherever possible but in some cases establishment of new bodies may be required. For example the Intergovernmental Oceanographic Commission (IOC), part of the United Nations Educational, Scientific and Cultural Organization (UNESCO), could potentially contribute regarding international scientific cooperation, scientific monitoring, scientific information and scientific issues. The CBD Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) is also a possible option for a scientific/technical advisory body.

The functions of a Scientific and Technical body or committee may include: review of EIA (if included in an Agreement); further work on how to make operational ecosystem-based approaches; and promoting international collaboration and exchange of information on MSR activities and findings in ABNJ. Its key roles could be to guide research where it is lacking; review conservation measures and minimum standards; review environmental impact statements; collate and synthesise scientific advice from relevant bodies; and to determine how scientific and technical information can be applied to progress the objectives of an Implementation Agreement. The committee could advise parties or report to an existing or new institution.
4 Conclusion

The marine environment in ABNJ is subject to a range of threats and the existing legal framework for such areas is fragmented and does not always take conservation of biological diversity into account. Therefore there is a need to develop mechanisms to address this problem. A new instrument such as an Implementation Agreement that attempts to address the range of gaps in governance in ABNJ for biodiversity conservation could improve coordination and provide a focal point for promoting biodiversity conservation and sustainable use objectives.

This report has outlined the key issues which may best be progressed through inclusion in an Implementation Agreement to UNCLOS in order to achieve these conservation and sustainable use objectives. A key part of the report’s theme is that such an Agreement would be one part, albeit vital, of improving oceans governance and that of equal importance will be maintaining momentum of current work within existing processes and bodies.

An Implementation Agreement should be complementary and catalytic.

In this respect, an Agreement could be characterised as representing a deepening and facilitating of UNCLOS obligations, without necessarily bringing in new principles of international law or new legal elements. It could add real value by giving substance to these provisions of UNCLOS, improving co-ordination between sectors, and clarifying responsibilities to ‘protect and preserve’ based on modern developments.

In particular, the application of cross-sectoral integrated management and co-operation to make operational an ecosystem-based approach in ABNJ, with a focus on conservation and sustainable use of marine biodiversity, would be a significant step forward.