THE PEW ENVIRONMENT GROUP

APRIL 2013

POLICY RECOMMENDATIONS

CONSERVING MARINE BIODIVERSITY:

ADDRESSING EXISTING COMMITMENTS AND DESIGNING NEXT STEPS FOR ACTION

Biodiversity and sustainable development

Biodiversity is crucial for maintaining the health of marine ecosystems. Sustainable development cannot be achieved without healthy marine ecosystems which provide a wide variety of goods and services. Degraded ecosystems, those that have lost biodiversity, are expected to be less resilient to increased pressures, including climate change.[1] Ecosystem services provided by the marine environment are of crucial importance for food security and poverty eradication. Restoring the health and economic viability of ocean systems should be recognized as a critical priority for sustainable development. Exploitation, pollution and habitat destruction have been demonstrated to cause direct changes to marine biodiversity.[2] Scientific assessments reveal that marine biodiversity loss is increasingly harming the ocean's ability to provide food, maintain water quality and recover from the adverse impacts of stress.[3] Scientists have documented that the rate of biodiversity loss is not slowing. In fact biodiversity has continued to decline over the past four decades. Yet despite this decline, studies indicate that human-induced pressures on biodiversity are increasing.[4] Efforts to stop biodiversity loss have not been adequate.[5] The consequences of biodiversity loss are cascading and potentially catastrophic; this dangerous trend must be urgently addressed.

MPAs, biodiversity and healthy fisheries

Fisheries scientists and managers have recognized that sustainable fisheries are only possible in healthy ecosystems. Reducing the stressors acting on an area can help maintain ecosystem integrity, population viability and the health of organisms, as well as foster recovery from adverse impacts. Removing stressors through the establishment of marine protected areas (MPAs), including in particular no-take marine reserves (MRs), is an important step in building the resilience of ecosystems and populations.[6] In addition, scientists have found that reserves and fisheries closures have yielded an increase in species diversity, averaging a 23% increase in species richness.[7] The scope of fisheries management has widened from only considering the size of the fishery resource to considering broader aspects such as the fishery's impact on the ecosystem. At the same time, MPAs and MRs are increasingly recognized as having an important role to play within fisheries management and particularly in an ecosystem approach to fisheries. Leading economists note that MPAs hold promise as a rational and practical way of managing ocean resources to achieve fishery ecosystem objectives.[8] Marine reserves in combination with other fisheries management tools can help achieve both fisheries and biodiversity objectives.[9] Reserves across the globe have resulted in increases in abundance, size, biomass and reproductive output of exploited species.[10] Studies have demonstrated that MPAs and MRs can be beneficial in conserving resources, increasing biomass and consequently benefit surrounding areas through species migration and recruitment.[11]

PATHWAY TO A GREEN ECONOMY: BIODIVERSITY COMMITMENTS OF THE PREVIOUS EARTH SUMMITS

With the aim to conserve biodiversity and promote the conservation of the marine environment, particularly in areas beyond national jurisdiction, the international community agreed to a number of commitments in the previous Earth Summits and the Convention on Biological Diversity (CBD) to tackle these issues and chart a more sustainable future for the oceans. As with the aforementioned fisheries commitments, several of these biodiversity commitments have been missed or will likely not be achieved. Maintaining marine biodiversity is crucial for fostering sustainable development. Current international ocean governance has proven to be inadequate to halt biodiversity loss and protect marine ecosystems beyond national jurisdiction. The following is a list of the relevant biodiversity commitments along with a short assessment.

Rio Declaration:

Principle 3: "The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations."

The Economics of Ecosystems and Biodiversity (TEEB) defines natural capital as a metaphor for the "limited stocks of physical and biological resources found on earth, and of the limited capacity of ecosystems to provide ecosystem services.[12] Many poor households throughout the globe rely on natural capital for a significant percentage of their income. These households are unable to easily adjust to losses of ecosystem services.[13] Conserving marine biodiversity should be a critical element to ensure the sustainable management of natural capital. TEEB states "biodiversity in all its dimensions—needs to be preserved not only for societal, ethical or religious reasons but also for the economic benefits it provides to present and future generations."[14] As was previously mentioned, the rate of biodiversity loss is not slowing. If this trend continues, future generations will be deprived of essential developmental needs that are fulfilled by ecosystem services. The international community urgently needs to reverse these trends and implement measures to conserve biodiversity.

Principle 15: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

Although principle 15 —the precautionary principle— enjoys widespread support, when it comes to protection of the marine environment, its implementation has been weak. Governance of human activities in marine areas beyond national jurisdiction has consistently failed to incorporate ecosystem considerations. Current fisheries management has largely ignored broader impacts on the environment from commercial fishing activities such as bottom trawling. As a consequence, many marine ecosystems are failing to provide the same ecosystem services that they were able to offer before unsustainable exploitation occurred.[15] Scientists have called on the international community to ensure proper and universal implementation of the precautionary principle.[16] Implementing the precautionary principle in fisheries management requires that action is taken to prevent irreversible harm before it starts to take place. In turn, where there is a lack of scientific certainty, fishing should not take place until precautionary conservation and management measures are agreed and implemented. In far too many cases, failure to reach agreement on measures allows destructive fishing practices to continue without restraint. It is vital that the precautionary principle and ecosystem approach are incorporated into decision making processes regarding the marine environment.

For example, it is well documented that many vulnerable marine ecosystems (VMEs) exist in areas beyond national jurisdiction; however, little has been done to protect these areas. The use of ecosystem based management tools such as high seas marine reserves to protect these VMEs could fulfill the provisions under principle 15. However, to date, very few high seas reserves have been established. The international community must make it a priority to implement the precautionary principle and implement the ecosystem approach, including through ecosystem based management tools such as high seas reserves to conserve the marine environment.

Principle 17: "Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority."

At ICP in 2011, many countries stressed the importance of an ecosystem based approach to the management of human activities affecting the marine environment as a means to ensure the sustainable use of marine good and services.[17] Throughout the Rio+20 process numerous States emphasized the importance of moving forward on MPAs and environmental impact assessments (EIAs) to promote precautionary management of the marine environment.[18] Prior EIAs, together with strategic environmental assessments (SEAs) should be utilized to assess whether individual activities will have adverse impacts on marine biodiversity, particularly in areas beyond national jurisdiction (ABNJ). If it is determined those activities will have adverse impacts, they should be managed to prevent such impacts or they should not be allowed to proceed.

JPOI and MDG Biodiversity Target:

"Achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth"[19]

This target is found both within the JPOI[20] and the Millennium Development Goals (MDGs).[21] Biodiversity is vitally important for human well-being, because it underpins the ecosystem services on which life depends. Not only do billions of people rely on a myriad of species for their livelihoods and survival, but the loss of biodiversity will hinder the delivery of the MDG targets related to poverty, hunger and health, since it will increase the vulnerability of the poor and reduce options for development.[22] The 2010 MDGs Report[23] noted that the world has missed the 2010 target for biodiversity conservation, with potentially grave consequences.[24] In particular, the specific indicators agreed for the MDG goal—the proportion of fish stocks within safe biological limits, the proportion of terrestrial and marine areas protected and the proportion of species threatened with extinction[25] —shows by how far this goal has been missed.

Trawler surrounded by seagulls under covered sky, © Sirko Hartmann/Shutterstock

JPOI Promise and CBD Target:

The following two targets, agreed in Johannesburg and Nagoya respectively, are linked and are therefore dealt with as one in the description.

"Develop and facilitate the use of diverse approaches and tools, including the ecosystem approach, the elimination of destructive fishing practices, the establishment of marine protected areas consistent with international law and based on scientific information, including representative networks by 2012 and time/area closures for the protection of nursery grounds and periods, proper coastal land use and watershed planning and the integration of marine and coastal areas management into key sectors;"[26]

Target 11: "By 2020, at least 17 percent of terrestrial and inland water, and 10 percent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes."

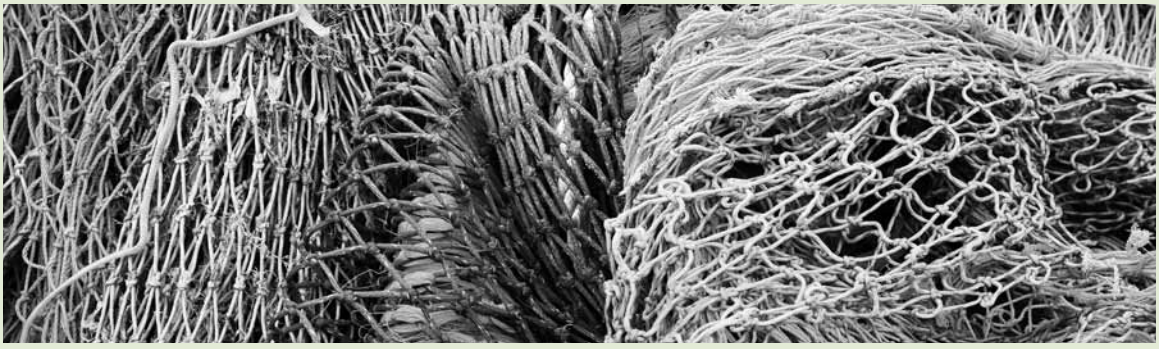
MPAs, including in particular no-take marine reserves, are widely acknowledged as a key tool to protect biodiversity and help build resilience of ecosystems. Despite this, the promise made in the JPOI and most recently by the Parties to the CBD to establish MPAs including representative networks, is not on a trajectory to be fulfilled. Only about 1% of the global marine environment is protected[27] and there is virtually no protection of marine ecosystems and biodiversity occurring on the high seas. The high seas are host to a wealth of vulnerable marine areas and habitats including seamounts, which can be areas of high diversity and/or productivity, and are frequently the habitat of numerous endemic species. There has been some effort to protect vulnerable marine ecosystems on the high seas pursuant to UNGA resolutions 61/105 and 64/72 and RFMOs; and, regional bodies including the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) and the Parties to the Nauru Agreement (PNA) have acted to close some vulnerable areas to fishing pressure. However, adherence to these measures is not uniform. MPAs, including no-take marine reserves, can help build marine ecosystem resilience and flexibility in the face of existing and emerging threats.

RECOMMENDATIONS FOR CONSERVING BIODIVERSITY

In order to adequately protect and conserve marine biodiversity in areas beyond national jurisdiction, ensure global accountability and improve international marine governance, the Pew Environment Group strongly urges the negotiation of a new agreement under UNCLOS for the protection and conservation of high seas biodiversity to implement its Articles on the conservation and protection of marine biodiversity in areas beyond national jurisdiction.[28] Just as the decision to establish the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Stocks Agreement, or UNFSA) following the recommendation from the first Rio conference in 1992 filled a critical gap in the management of straddling stocks and highly migratory species, this new agreement could fill existing gaps in high seas governance and promote precautionary, ecosystem based management measures to ensure the long term sustainability of marine species and ecosystems in areas beyond national jurisdiction.

The global community has agreed to preserve the biodiversity of important and vulnerable marine areas both within and beyond national jurisdiction, whether at WSSD, Rio+20, the UNGA, or elsewhere. However, there is no legal regime in place to establish and manage MPAs and no-take marine reserves in areas beyond national jurisdiction. Although the CBD is developing mechanisms for identifying ecologically or biologically significant areas, it has no mandate for their designation and management as MPAs (including reserves). Thus, a serious gap exists between MPA identification and MPA and reserve designation. In order to achieve the JPOI, and CBD targets, and to ensure a sustainable future for the oceans, this implementation gap urgently needs to be filled. An implementing agreement under UNCLOS offers a way forward. It could include a provision that addresses this implementation gap to ensure that a system is put in place whereby MPAs and reserves can be designated, monitored, and effectively enforced on the high seas. The time has come for the countries of the world to take this step.

Among one of the largest gaps in high seas governance is the lack of a legally binding agreement on prior environmental impact assessments (EIAs). The EIA provisions under CBD and those under UNCLOS are quite general and open to interpretation. Other than the CBD and UNCLOS requirements, there are few international instruments that require identification and prior assessment of potential threats from high seas activities before they take place. The Madrid protocol, adopted in 1991 to regulate activities in Antarctica, is one such model and was considered by many to be a landmark achievement in global environmental protection. The Protocol subjects all activities to prior assessment of their environmental impacts.[29] At 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 jurisdiction (BBNJ) in 2011 one country expressed the need to understand, to the greatest degree possible, the potential impact of human activities on the marine environment in order to evaluate how human activities should be regulated.[30] Application of prior EIAs and SEAs through an implementing agreement could fulfill and expand on the CBD and UNCLOS requirements.



Industrial fishing nets, © Shutterstock

UNCLOS which opened for signature in 1982 and entered into force in 1994 has been supplemented by the 1994 Deep Seabed Mining Agreement and the 1995 UNFSA. UNFSA was born out of the original Earth Summit, UNCED. Agenda 21, paragraph 17.49 requests States to convene a conference on straddling and highly migratory fish stocks to supplement the mandate of UNCLOS as it pertains to high-seas fisheries management. The UNGA endorsed this decision at its 47th session and UNFSA was crafted in a series of specialized sessions from 1993-1995. In 1995 UNFSA was adopted; it entered into force in 2001. UNFSA sets out specific principles to guide the development of conservation and management measures for straddling and highly migratory fish stocks, with a view to addressing the problems identified in Chapter 17 of Agenda 21.[31] The Agreement's objective is "to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the Convention."[32] If no RFMO/A is in existence in a given area, States are to cooperate to establish a suitable organization or arrangement to ensure the conservation and management of the particular stock or stocks of interest. The precedent of the UNFSA, which came out of UNCED at Rio in 1992, should guide the next steps in ocean conservation, particularly as relates to UNCLOS and the protection of marine biodiversity in areas beyond national jurisdiction.

Drawing on the success and precedent of the agreement of UNFSA, the Pew Environment Group strongly urges the negotiation of a new implementing agreement under UNCLOS for the protection and conservation of high seas biodiversity. The 2011 BBNJ meeting initiated crucial progress towards this end. States agreed to recommend that a process be initiated by the UNGA to ensure that the legal framework for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction identifies gaps and ways forward, including through the implementation of existing instruments and the possible development of a multilateral agreement under UNCLOS. At Rio+20, States took one step further when they agreed to commit to address, on an urgent basis, the issue of the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction including by taking a decision on the development of an international instrument under UNCLOS before the end of the 69th Session of the UN General Assembly (The Future We Want, para. 162).

Current gaps which could be specifically addressed through an implementing agreement include:

- Comprehensive prior environmental impact assessments (EIAs) and strategic environmental assessments (SEAs), together with ongoing monitoring of the marine environment;
- Identification, designation and management of a global network of high seas marine protected areas, including in particular no-take reserves;
- Implementation of the precautionary principle and ecosystem approach in decision making and fisheries management; and

If agreed, such an outcome would truly represent a paradigm shift and demonstrate strong international commitment to chart a more sustainable future for the ocean.

The international community must seize this critical opportunity to take meaningful action to ensure the long term conservation and sustainable use of the ocean and its resources.

ENDNOTES

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21 The biodiversity target was adopted in 2005 and amended to include targets in 2007. The Biodiversity Target was endorsed by 110 leaders at the WSSD in 2002, and then at the Summit in 2005, where the UNGA adopted a set of detailed targets related to Goal 7 on environmental governance which aimed at significantly reducing the rate of loss of biodiversity by the year 2010. See the World Summit Outcomes Document, UN GA resolution 60/01 (24 October 2005), at http://www.un.org/summit2005/documents.html. The UN Secretary-General in his 2006 report noted the 2010 agreed target, in Secretary-General, Report of the Secretary-General on the work of the Organization, A/61/1, paragraph 24, at http://mdgs.un.org/unsd/mdg/Resources/Static/Products/SGReports/61_1/a_61_1_e.pdf. States adopted this recommendation and specifically resolved that "All States will fulfill commitments and significantly reduce the rate of loss of biodiversity by 2010 and continue ongoing efforts towards elaborating and negotiating an international regime on access to genetic resources and benefit sharing." Paragraph 56(c). The current targets were adopted in 2007 following a recommendation by the recommended by the Inter-Agency and Expert Group on MDG Indicators (IAEG). See http://unstats.un.org/unsd/mdg/Host.aspx?Content=Indicators/About.htm.
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29 Protocol on Environmental Protection to the Antarctic Treaty (1991) Article 3. http://www.antarctica.ac.uk/about_antarctica/geopolitical/treaty/update_1991.php
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31 The UNGA 2010 Sustainable Fisheries Resolution A/65/38 called upon States to extend UNFSA's measures to include the long-term conservation, management and sustainable use of discrete high seas stocks in accordance with UNCLOS and consistent with the Code and general principles set forth in UNFSA. http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N10/514/82/PDF/N1051482.pdf?OpenElement p.9
32 http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N95/274/67/PDF/N9527467.pdf?OpenElement Article 2.

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