

# The Ocean Conference

## Contribution from Iceland

### for Partnership Dialogue Concept Papers

March 2017

#### Partnership dialogue 1: Addressing marine pollution

Marine and land-based human activities continue to constitute a serious threat to the oceans and seas, and marine resources. According to the background note of the Secretary-General for the preparatory process of the conference (hereinafter the background note), 80% of marine pollution and litter comes from land-based sources. In light of this, delivering on Goal 12 (production and consumption), Goal 9 (sustainable industrialization) and Goal 11 (sustainable cities) will be crucial for the successful implementation of target 14.1 on marine pollution.

The background note further states that “[w]hile UNCLOS provides a general legal framework to address marine pollution from land-based sources, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) is currently the only global mechanism entirely dedicated to address this issue.”<sup>1</sup> Under the GPA framework, close to 100 countries have prepared relevant national plans/strategies to address land-based pollution. In this context, it is important to call for wider implementation of the GPA.

The main challenges in this field would include the lack of sewage systems and wastewater treatment plants, in particular for large urban settlements, as well as capacity building and transfer of technologies needed in wastewater treatment and waste management.

Within the context of national and international implementation of the SDGs, there is need for awareness raising of the negative impact of land-based activities on the health of the oceans and emphasizing that policies and practices at all levels should aim to reduce this impact.

Another major challenge is the amount of plastics in the oceans and seas. According to UNEP, each year more than eight million metric tonnes of plastics end up in oceans, wreaking havoc on marine wildlife, fisheries and tourism, and cost at least USD 8 billion in damage to marine ecosystems. Estimates predict that by 2050 oceans will have more plastic than fish if present trends are not arrested. The Clean Seas campaign initiated by UNEP is a recent initiative that has already received a lot of attention and important commitments.<sup>2</sup>

For many years, Iceland has benefitted from various private and non-governmental initiatives against shoreline litter. Numerous cleaning projects have been conducted and carried out as well as extensive awareness-raising initiatives among Icelanders and particularly the youth. Initiatives have also been focused on underwater clean-up projects. These projects have been sponsored by the Government of Iceland, municipalities and private companies. It is therefore important to recognize, encourage and support the contribution of civil society in this regard.

Even though majority of marine pollution stems from land-based sources, focus should also be kept on the remaining 20% stemming *inter alia* from ship pollution and lost, abandoned or discarded fish-gear. Full adherence to the International Convention for the Prevention of Pollution from Ships

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<sup>1</sup> Paragraph 18

<sup>2</sup> <http://www.cleanseas.org>

(MARPOL) with focus on actions to reduce and eliminate abandoned, lost or otherwise discarded fishing gear is important in this regard.

Numerous regional organizations, including the Commission for the Protection of the Marine Environment of the North-East Atlantic (OSPAR), have an important role to play. OSPAR agreed on a Regional Program of Action against marine litter in 2014. Iceland is monitoring beach litter in accordance with the OSPAR guidelines on the issue. Results from all OSPAR countries will be collected in a database in order to combat the problem in a more systematic way resulting from better knowledge on the origin and sources of the litter.

The Arctic Council Working Group for the Protection of the Arctic Marine Environment (PAME) has recently started the project “Desktop Study on Marine Litter including Microplastics in the Arctic (Phase I)” Iceland is participating as co-lead on this project.

Iceland is also engaged in the work of the Marine Group of the Nordic Council of Ministers, which funds projects that contribute to the build-up of scientific basis and create a foundation for joint efforts against pollution in the Nordic marine and coastal environments, including plastics and microplastics.

## Partnership dialogue 2: Managing, protecting, conserving and restoring marine and coastal ecosystems

The background note stresses the “need for effective national legislation, civil society participation, strengthening of administrative and technical frameworks and capabilities, and institutional arrangements that enhance and ensure monitoring, control and surveillance, and enforcement of legislation. Sharing knowledge and practices more systematically can help address coordination problems and needs to involve both public and private stakeholders.”<sup>3</sup>

Threats and stressors on marine and coastal ecosystems are varied and call for diverse action. Some stressors, like warming, ocean acidification and pollution, are best dealt with at the source, by limiting emissions of greenhouse gases and pollutants. And many economic activities that affect marine ecosystems, such as fisheries and offshore industries, are best dealt with by direct regulation or coordination of these activities.

Area-based management tools, including marine protected areas (MPAs), have an important role in supporting the conservation and sustainable use of marine biodiversity. MPAs are however only one tool in a toolbox for biodiversity conservation. The designation of MPAs must be based on the best available science and proper evaluation. The establishment of ecologically or biologically significant marine areas (EBSAs) under the Convention on Biological Diversity (CBD) largely addresses the need for scientific evidence, as it is designed to evaluate areas of great ecological importance and conservation value. Another issue worth considering is the evaluation of threats or pressures. The establishment of MPAs where there is no present or foreseeable direct threat or pressure on biodiversity serves limited purpose and can create a false sense of protection for the area. Further, a goal of establishing a certain number of MPAs will offer limited protection against some of the most serious stressors on biodiversity in the high seas, such as global warming, many types of land-based pollution and ocean acidification. MPAs are important, but they are not a panacea for marine biodiversity protection.

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<sup>3</sup> Paragraph 21

Raising awareness of the impact of human activities on the marine and coastal ecosystems, including those related to tourism and industries, needs to be taken into account in policies and practices at all levels.

The work of the Food and Agriculture Organization of the UN (FAO) in supporting countries in implementing the FAO 1995 Code of Conduct for Responsible Fisheries, and the ecosystem approach to fisheries, are vital for current and future activities contributing to the achievements of SDG 14.2.

It is important for different institutions with different mandates to cooperate and inform each other of their activities. One important example is when the North East Atlantic Fisheries Commission (NEAFC) and the Commission for the Protection of the Marine Environment in the North East Atlantic (OSPAR) adopted in 2014 a collective arrangement for working together on particular areas outside national jurisdiction within their convention areas. NEAFC and OSPAR have some overlap in the substantive issues they work on, but have a complementary, non-overlapping, legal competence to address these issues. This in-depth arrangement facilitates cooperation and coordination between the competent authorities, ensuring information sharing and avoiding undermining their conservation and management measures. While it is clear that the intention is not to establish joint management, given the separate legal competence, the target is to significantly increase cross-sectoral cooperation and coordination.

### Partnership dialogue 3: Minimizing and addressing ocean acidification

The background note describes well the wide-ranging impacts of ocean acidification, further compounded by impacts from climate change such as ocean warming and sea-level rise. Iceland considers ocean acidification to be a serious threat to biodiversity, even if the likely impacts are not fully known. There is a need to increase research, monitoring, assessment and awareness of ocean acidification and other impacts of carbon emissions and climate change on the marine ecosystem. In order to slow down and halt ocean acidification, few actions are possible other than cutting carbon emission. The effective implementation of the Paris Agreement is therefore fundamental for the long-term health of the ocean and its biological diversity.

In the Addis Ababa Action Agenda, “we acknowledge that increases in global temperature, sea level rise, ocean acidification, and other climate change impacts are seriously affecting coastal areas and low-lying coastal countries including many least developed countries and small island developing States, while extreme climate events endanger the lives and livelihoods of millions. We commit to enhanced support to the most vulnerable in addressing and adapting to these critical challenges.”<sup>4</sup>

One challenge faced is the urgent need for better understanding of the impacts of, and risks associated with, ocean acidification and climate change. According to the background note, enhanced collaboration among States, regional fisheries management organizations and arrangements (RFMO/As), regional seas conventions and action plans, scientific organizations, academia and civil society is needed in conducting such research.

The development of acidification has been monitored in the seas around Iceland since the mid 1980s and have revealed 50% higher rate of increase in these cold water areas than has been measured in the warmer waters of the North Atlantic Ocean. Such monitoring is essential for furthering understanding of the implications of ocean acidification.

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<sup>4</sup> Paragraph 65

Partnerships between organizations, institutions and other stakeholders dealing with ocean acidification need to be established and reinforced to measure acidification and its impacts, and to ensure that knowledge gaps are addressed in an appropriate manner.

#### Partnership dialogue 4: Making fisheries sustainable

Fisheries are a vital part of ensuring the food security of a growing world population. According to the FAO, total capture production in marine waters was 81.5 million tonnes in 2014. Fisheries and aquaculture supply 17% of global animal protein in people's diets and support the livelihoods of some 12% of the world's population. Even small quantities of fish can have a significant positive nutritional impact on plant-based diets, as is the case in many low-income food-deficit countries and least-developed countries (LDCs).

The background note states that efforts to address overfishing are often undermined by a lack of science-based management, weak governance and institutional capacities, particularly in developing countries. This is reflected in insufficient data collection and analysis as well as weak monitoring, control and enforcement capacity.

Sustainable fisheries management is essential to secure effective use of marine resources. The World Bank has assessed that difference between the potential and actual net economic benefits from global marine fisheries could be in the order of USD 83 billion annually.<sup>5</sup> However, for LDCs and developing countries capacity building and infrastructure improvements will be critical to reap the potential increased benefits of sustainable management of fisheries.

The United Nations Convention for the Law of the Sea (UNCLOS) provides the legal basis for States to sustainably manage ocean resources. The 1995 UN Fish Stocks Agreement implements and builds on UNCLOS, addressing problems relating to the management of high seas fisheries. There is urgent need to call for wider implementation of UNCLOS and related instruments, recognizing the capacity of the current regime, with adequate implementation and monitoring, to address current challenges. To this end, capacity building for the implementation of UNCLOS, relevant sustainable practices and regional cooperation is needed. This is done through increased dissemination of information and knowledge. Furthermore, there is need for more ODA to fisheries development, including towards the building of infrastructure for effective monitoring, control and enforcement, along with technology transfer to contribute to sustainable management. The United Nations University Fisheries Training Programme (UNU-FTP) in Iceland contributes actively to capacity building in this field, as further described below under partnership dialogues 5 and 6.

Science-based approach to conservation and management is essential to the sustainability of marine resources. Regional fisheries management organizations (RFMOs) are critical to attaining the goals of the UN Fish Stocks Agreement to sustainably manage transboundary and straddling fish stocks and the marine ecosystems. Therefore, effective implementation of the Agreement is of major relevance. RFMOs share among themselves best practices and cooperate on common issues. The framework for neutral scientific advice for such RFMOs is essential, in order to secure as far as possible decision making that is based on best available science, unbiased from economic and political interests. As

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<sup>5</sup> The World Bank, *The Sunken Billions Revisited: Progress and Challenges in Global Marine Fisheries*, DOI: 10.1596/978-1-4648-0919-4

discussed under partnership dialogue 6, acquiring scientific knowledge and sharing of knowledge are factors of fundamental importance for sustainable harvest of the oceans. And as ocean and fisheries science is a large-scale activity, it is essential to cooperate across national borders. Examples of such successful cooperation is the International Council for the Exploration of the Sea (ICES), which both functions as international forum for exchange of scientific knowledge as well as provider of neutral scientific advice to individual governments and RFMOs.

Based on the best available science and an ecosystem approach to fisheries management, a number of RFMOs have closed high seas areas with the aim of protecting vulnerable marine ecosystems (VMEs) from significant adverse impacts from bottom fishing, including both NEAFC and NAFO. The relevant General Assembly resolutions and the 2009 FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas have been taken into account by those RFMOs in adopting measures in respect of bottom fisheries in their regulatory areas. Such management measures are not only binding for members of the relevant RFMO but for all States Parties to the UN Fish Stocks Agreement. Any State Party, which would engage in fishing activities in contravention to such measures, would be conducting illegal fishing.

Illegal, Unreported and Unregulated (IUU) fishing undermines national and regional efforts to conserve and sustainably manage fish stocks and, as a consequence, inhibits progress towards achieving Goal 14 in general. Moreover, IUU fishing greatly disadvantages and discriminates against those fishers that act responsibly, honestly and in accordance with the terms of their fishing authorizations. The 2009 FAO Port State Measures Agreement (PSMA), tackling IUU fishing through robust port state measures, has recently entered into force. Iceland has ratified the PSMA and underscores that the instrument needs to be rapidly put in action to ensure its effective implementation. There are currently a number of partnerships supporting the robust implementation of the PSMA. These include States, IGOs, NGOs and regional fisheries bodies. While there is significant coverage, there are still regions where more work is needed. If applied as aimed for, the PSMA could become the largest step taken forward in the combat against IUU fishing.

Iceland recently prepared a paper for the FAO that describes the process of ratification and implementation of the PSMA in Iceland. It also describes, as necessary, the NEAFC Port State Control Regime and its development and alignment with the PSMA. The port state control procedures applied in Iceland are explained at the end of the paper with the help of flow diagrams. The paper can be accessed on the webpage of the FAO.<sup>6</sup>

Additionally, states can participate in and contribute to the development of the FAO Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (Global Record) programme, a global tool to disseminate relevant information to increase transparency and traceability in the fisheries sector.

As recognised in the background note, fisheries subsidies “[...] can actively contribute to overcapacity and overfishing, and can be damaging and distort trade even in effectively managed fisheries.”<sup>7</sup> With reference to the urgency of reaching target 14.6 by 2020, increased efforts need to be put into discussions taking place within the World Trade Organization (WTO) on this issue. In this respect, attention is drawn to the 2016 joint statement by UNCTAD, the FAO and UNEP entitled "Regulating

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<sup>6</sup> <http://www.fao.org/3/a-bo562e.pdf>

<sup>7</sup> Paragraph 40

Fisheries Subsidies must be an Integral part of the Implementation of the 2030 Sustainable Development Agenda".<sup>8</sup>

Many partnerships exist in the field of sustainable fisheries, including important projects under the Common Oceans programme administered in partnership between the Global Environment Facility (GEF), the FAO, UNEP, World Bank, Conservation International, Global Oceans Forum, International Union for Conservation of Nature (IUCN) and World Wildlife Fund (WWF).<sup>9</sup> The partnerships within the Common Oceans programme include various partners and cover a substantial amount of topics/issues, from sustainable management of tuna fisheries and biodiversity conservation of deep-sea marine living resources, to business plans for investment and strengthening capacity building.

Another important partnership in this area is the PROFISH Multi-Donor Trust Fund housed at the World Bank. It was created to address the lack of support to fisheries reform and sustainable development in fishing communities worldwide. PROFISH undertakes strategic analysis of global issues and disseminates the results, as well as providing high quality technical advisory services for the development and implementation of country and regional lending. PROFISH serves the international community by facilitating the collection, analysis and sharing of information, data and relevant analysis and policy, as well as helping coordinate the interventions of other lending and project implementation agencies.

#### Partnership dialogue 5: Increasing economic benefits to SIDS and LDCs and providing access for small-scale fishers to marine resources and markets

Fishery trade represents a significant source of foreign currency earnings for many developing countries, in addition to its important role in income generation, employment, food security and nutrition. In 2014, fishery exports from developing countries were valued at USD 80 billion, and their fishery net export revenues (exports minus imports) reached USD 42 billion, higher than other major agricultural commodities (such as meat, tobacco, rice and sugar) combined.

Assisting SIDS and LDCs in advancing action for the implementation of SDG14 calls for increased capacity building, knowledge sharing and transfer of technology. The various needs include UNCLOS implementation, establishing regional management mechanism where applicable, setting up sustainable fisheries management systems and monitoring, controlling and enforcement thereof, minimizing post-harvest losses along the supply chain and securing access to markets. In this, partnerships and adequate financing will be essential.

The UN University Fisheries Training Programme (UNU-FTP) has a long-standing relationship with several SIDS countries. Fellows in the six-month programmes in Iceland have done research into various ways to assess important stocks, looked into the feasibility of establishing MPAs and several other management options. The capacity of different countries to manage their resources and add value to fish caught or produced vary greatly. Although it is clear that improved management of fishing activities can generate economic benefits of large proportions, there are also social and economic costs associated with major changes in resource management that may complicate the situation. The UNU-FTP focuses on demonstrating the potential for developing appropriate fisheries management and improved fish handling and processing.

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<sup>8</sup> <http://www.fao.org/3/a-bl898e.pdf>

<sup>9</sup> <http://www.commonoceans.org/>

A project called “Blue Bioeconomy in Small Islands” is the newest development of a long-standing cooperation between the Nordic Council of Ministers, the Commonwealth Secretariat, and the FAO. The activity is led by the Faroe Islands (iNORA) in relation to their responsibility for the Danish chairmanship flagship project on the “Growth in the Blue Bioeconomy in the Northeast Atlantic and the Arctic”. Iceland has played an active role in the project, especially through the Nordic Council of Ministers Chairmanship program “NordBio”. Recently Norway joined the partnership. Other partners include Malta, Cape Verde, Seychelles, and Grenada. Currently the cooperation is focusing on up to five of the main challenges and successes common to small islands in the Blue bioeconomy. This is demonstrated through sharing experiences between northern and southern islands. The partnership is also publishing policy briefs on how to address various challenges to the strengthening of the bioeconomy of small island states.

Meeting the targets set in SDG14 and other goals requires special attention with respect to small scale fisheries when aiming at maximizing harvest (management at or close to Maximum Sustainable Yield), increased economic returns and improved food security and health.

Small-scale fisheries account for about half the catch intended for human consumption. According to FAO statistics, total catch has remained relatively constant over the last two to three decades, but the number of fishermen and vessels has increased substantially. The average annual catch per small-scale fisher has declined over this period from about 3.5 tonnes per year to less than 1.5 tonnes. These numbers do not tell the whole story. There are several examples, new and old, of governments encouraging fishers to go further off shore to relieve the fishing pressure in inshore areas, but also of increased mechanization and investment enabling fishermen to go further out to sea, exploring new fishing grounds. The gradual development of small-scale fisheries means that this expansion, due to the open access nature of most small-scale fisheries, has been unregulated and it becomes increasingly difficult and complicated to meet the SDGs. There are a few case studies done by UNU-FTP fellows that clearly show this development, using data available in their home countries.

### Partnership dialogue 6: Increasing scientific knowledge, and developing research capacity and transfer of marine technology

The background note makes a compelling case for increasing scientific knowledge and research capacity as well as the transfer of technology. It states that “[t]here is a need to better understand ecosystem processes and functions and their implications for ecosystem conservation and restoration, ecological limits, tipping points, socio-ecological resilience and ecosystem services. In particular, the effects upon biodiversity and ocean productivity from cumulative impacts as well as socioeconomic impacts are often not well understood in order for the adequate political and business decisions to be made.”<sup>10</sup>

All policies for the conservation and sustainable management of the oceans should be based on sound scientific research. Furthermore, sustainable harvesting, processing and transport will rely on wider use of existing technologies, stressing the need for technology transfer. Here capacity building is essential.

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<sup>10</sup> Paragraph 50

In Iceland, a good example of successful capacity building in this field has taken place at the United Nations University Fisheries Training Programme (UNU-FTP). The Programme was established in 1998 through a tri-lateral agreement between the United Nations University, the Icelandic Ministry for Foreign Affairs, and the Marine Research Institute in Iceland. The UNU-FTP operates in collaboration with academic institutions, private fishing companies, governmental departments, research institutions, in Iceland and in partner countries, as well as regional and international fisheries organisations.

The main objective of the UNU-FTP is to assist partner countries in formulating and implementing their fisheries development policies for the sustainable use of living marine resources. Each year about 20 professionals undertake six month post-graduate training in Iceland. The last three months are used for an individual research project addressing important issues in the home country. At this point, just under 350 fellows from around 50 countries have concluded the six-month training in Iceland. Two to four fellows receive scholarships each year to conduct MSc and PhD studies, where a substantial part of the research is done in the home countries. This way the programme has gained important insights into the challenges developing countries face in the development and management of their fisheries and aquaculture. Some of these are addressed in short courses developed and delivered in cooperation with local partners in their home countries. So far over 40 courses have been conducted in developing countries, training over 1200 participants. The programme focuses on three main areas within fisheries, i.e. resource assessment and management, fish handling and processing and sustainable aquaculture.

Cooperation in scientific activities and capacity building in marine sciences is taking place through bilateral projects, regionally and under the umbrella of global organisations, such as the FAO. Sharing of knowledge is essential at all levels for all countries, because marine sciences are most often large scale activities, where cooperation gives much added value.

In the North Atlantic Ocean, the International Council for the Exploration of the Sea (ICES) has functioned as a forum for exchange of scientific knowledge, a coordination tool for scientific cooperation in ocean research, environmental and fisheries science, a provider of scientific advice for environmental issues, conservation and sustainable use of North Atlantic living marine resources, as well as to some extent for capacity building in the countries involved. Iceland became a member of ICES in 1938. The participation in the work of the Council has been of fundamental importance for the development of knowledge and scientific activities in the seas around Iceland, as basis for conservation measures and sustainable use of the living marine resources in Iceland's Exclusive Economic Zone.

ICES was founded in 1902 with focus on the North Atlantic Ocean. Although its founding members were from Europe and North America, today countries from other continents are affiliated as well. This expert network now covers more than 5000 experts, with 1500 annually taking part in ICES work, from more than 50 countries. Initially the organisation focused on the North Atlantic and Arctic, but more recently and in cooperation with other organisations the geographic scope has been extended to both adjacent sea areas, the Mediterranean (Mediterranean Science Commission, CIESM) and the North Pacific (Pacific International Council for Exploration of the Seas, PICES). Thus, the scope of activity has a more global approach today, which is beneficial from many points of view. This includes wider participation and cooperation on the many global issues that are facing ocean scientists worldwide, such as climate change, providing the science needed for the application of the ecosystem based approach to ocean management, and ocean observing systems. While the structure and function of the cooperative mechanism of ICES is a good model for establishment of



similar organisations in other regions of the world, ICES would also welcome cooperative partners from throughout the world for enhancing marine science globally.

One of the most important forums for Iceland's international cooperation is the Arctic Council. Under the auspices of the Arctic Council and its subsidiary bodies the focus is on scientific research, monitoring and analysis of the changing conditions in the Arctic region. The most important driver for change in the Arctic are greenhouse gas emissions and the fact that the region is warming at twice the rate of the global average. This results in profound changes in the Arctic environment and is a challenge for all inhabitants of the Arctic and the Arctic ecosystems. Because of this the Arctic Council is engaged in many projects that seek to enhance the knowledge about the Arctic region. These projects and their results give the Council a base for making policy recommendations based on scientific findings and observations. The six permanent working groups of the Arctic Council are responsible for the majority of the Council's scientific efforts.

The Committee of Senior Officials in Fisheries and Aquaculture within the Nordic Council of Ministers provides a longstanding forum for both political debate and scientific cooperation. The Committee provides economic support to cooperation activities with interest in the Nordic countries, with the common aim of ensuring a balanced development of the fisheries sector and the best possible marine environment.

#### Partnership dialogue 7: Enhancing the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS

The UN Convention on the Law of the Sea (UNCLOS) provides the legal basis for States to sustainably manage their waters. Successful sustainable fisheries management relies on the implementation and enforcement of UNCLOS and its implementing agreements.

Effective compliance with, and enforcement of, the provisions of UNCLOS and its implementing agreements remain a challenge, in particular for developing countries and especially for SIDS and LDCs. While reviews of implementation have been carried out, assessment remains incomplete. This is due to a low level of responses to reporting requirements and limited information on how States discharge their duties under relevant binding instruments or have followed upon the calls for action of the General Assembly and other governing bodies of competent international organizations. In addition, when they exist, compliance mechanisms are often not used to their full extent.

Increased knowledge-sharing in this field therefore underpins sustainable management of marine resources. Opportunities lie in wider ratification and implementation of UNCLOS and related agreements, including the UN Fish Stocks Agreement and the FAO Port States Measures Agreement. Further participation in and strengthening of the important work of RFMOs would furthermore enhance the conservation and sustainable use of oceans and their resources.