

Sustainable Energy, Water and Food Systems

G20 Japan 

Improving Future Ocean Governance – Governance of Global Goods in an Age of Global Shifts

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Japan's G20 presidency in 2019 will take the lead in promoting environmentally sustainable economic growth and the UN Sustainable Development Goals (SDGs). As a gathering of coastal states, under Japan's presidency the G20 will specifically work to reduce marine plastic pollution and support marine biodiversity. This policy paper highlights how oceans are governed spaces and points to the key role of the oceans in realizing the SDGs. We argue that the G20 can and should play an important role in addressing major governance gaps in ensuring the sustainable management of oceans.

Recognizing that there are increased geopolitical tensions, and that we do indeed already have comprehensive multi-level governance systems in place to handle many aspects of the growing 'blue economy' and avoiding the tragedy of the commons, the G20 should primarily stress the need for full and effective implementation of existing instruments and measures at the national, regional and global levels and increased consistency across levels of governance. This would effectively address many of the challenges and make use of the opportunities of the oceans.

However, the rapidly moving horizon of technological development and insufficient progress in mitigating global climate change represent new governance challenges that require renewed effort and innovative thinking for a sustainable future for the oceans.

This policy paper provides recommendations as to how G20 states can:

- consolidate their own capacity and assist non-G20 states in taking responsibility for strengthening marine science and implementation of existing regulatory frameworks,
- exercise innovative global and regional leadership to address emerging opportunities and associated governance challenges and
- facilitate the meaningful involvement of the private sector and the public in ensuring a collective governance order around oceans.

Challenge

Pressing Ocean Issues

The ocean covers 70% of the earth's surface. Goods and services from the world's oceans generate USD 2.5 trillion each year. At present, 10-

12% of the livelihoods of the world's population rely on existing ocean industries, like fisheries and maritime transportation (2). This percentage is likely to increase with technological advances, services and products. Oceans, therefore, will play a crucial role in achieving the UN Sustainable Development Goals (SDGs), such as reducing hunger (SDG 2). Oceans are also the object of a dedicated SDG focused on the need for protection and sustainable use of marine ecosystems (SDG 14).

Our economic systems have negative effects on the environment and the world's oceans are facing several threats. Global climate change – and the carbon dioxide emissions that are the primary driver of this change – is by far the biggest. The impacts of climate change are already being seen in the world's oceans. The bleaching and death of the Great Barrier Reef off of the Australian coast demonstrate the consequences of ocean acidification and a warming ocean. Altered water temperatures also affect the distribution of fish stocks in the oceans. Moreover, a changing climate drives the melting of the ice sheets in Greenland and Antarctica which will in turn bring about a rise in global sea levels, threatening the life and livelihood of small island states, coastal cities and communities.

The world's oceans are a vital source of food and home to a large percentage of the earth's biodiversity. However, one third of the world's fish stocks are overexploited (3). Illegal, unreported and unregulated (IUU) fishing is a main driver of this problem. Shipowners engaged in fisheries crime often flag their vessels with 'flags of convenience' in states not having the capacity or will to enforce jurisdiction over the vessel (4). Despite improvements in fisheries management, use of fisheries resources remains inefficient, with one third of landings wasted before reaching consumers (5). Furthermore, a major threat to life in the ocean is pollution and marine debris, including plastics and microplastics. A recent study estimated that by 2018 8300 million metric tons of plastics had been produced. Of this, 6300 metric tons had already become waste, with 79% accumulated in landfills or the natural environment (6).

At the same time, rapid technology development brings new opportunities and novel challenges for ensuring sustainable oceans. New uses of ocean resources, such as by marine biotechnology, deep seabed mining and ocean based renewable energy, will also produce new technical, ecological and governance challenges. These challenges will require the ability to adapt quickly to new knowledge as it becomes available. Even our capacity for producing knowledge about the oceans needs to be considered. New technologies will enable countries to better monitor oceans and fishing, detect the smuggling of people, drugs and weapons, as well as improve search and rescue at sea. Drone technology and unmanned underwater vehicles, and advances in data collection, processing and visualization will enable humanity to enter into and gain knowledge about ocean spaces that have so far only been left to fantasy. We can imagine that in a not so distant future we will have much better information for the management of space, land and marine resources, and this can provide us with great opportunities. At the same time, uneven access to such important information could exacerbate existing global inequalities, the competitiveness of playing fields for business, and national security dilemmas.

A Strong Governance Baseline

The issues of oceans governance require a networked perspective. The 1982 United Nations Convention on the Law of the Sea (UNCLOS) is the constitution of the oceans, covering the use and conservation of marine resources and jurisdictional and navigational rights, based on a premise that "the problems of ocean space are closely interrelated and need to be considered as a whole." (7)

The foundation for comprehensive marine governance therefore exists. Current implementing agreements are the 1994 Agreement on the Deep Seabed Provisions of UNCLOS and the 1995 UN Fish Stocks Agreement. An additional UNCLOS implementing agreement for biodiversity conservation and use, including marine genetic resources, beyond national jurisdiction (BBNJ) is currently under negotiation.

UNCLOS provides a framework for coastal states' sovereign rights over the natural resources in 200 nautical mile exclusive economic zones (EEZs) (8). EEZs account for approximately one-third of total ocean space, with the remaining ocean being 'high seas' beyond national jurisdiction. The high seas are also a governed space, with UNCLOS specifying rights and obligations for states.

A number of international organizations address governance in specific sectors. The International Maritime Organization (IMO) focuses on regulation to ensure the safety, security and environmental performance of the shipping sector. Its 2020 sulphur cap regulation, for example, is likely to have significant impacts on markets and the environment. The Food and Agriculture Organization (FAO) develops global norms pertaining to fisheries. These are implemented by coastal states in the EEZs and by Regional Fisheries Management Organizations, of which about 20 currently exist, in the high seas. For example, the North East Atlantic Fisheries Commission (NEAFC) manages fisheries in the high seas in the North East Atlantic. Also, the North Pacific Fisheries Commission (NPFC) was established to manage the fisheries in the high seas in the North Pacific area. More ad-hoc coalitions, such as the High-Level Panel on Sustainable Ocean Economy (9), are also a resource in

advancing global ocean governance issues. Promoting coherence and coordination between various agencies and governance networks is essential in strengthening governance overall.

Regional bodies and groupings also play an important role as provided for by UNCLOS. The Arctic Ocean, for example, is criss-crossed by governance initiatives of varying degrees of legal formality. The eight-country Arctic Council has established itself as the preeminent forum for transboundary circumpolar environmental and social issues. Three legally binding agreements addressing regional governance challenges of today and the future have been negotiated, facilitating coordination between the Arctic states (search and rescue, oil spill response, scientific cooperation). This demonstrates that agreements can be reached, even when there are significant geopolitical tensions. Also, leadership by the five Arctic coastal states (Canada, Kingdom of Denmark (Greenland), Norway, Russia, and the USA) led to an agreement about preventing unregulated fishing in the high seas in the Central Arctic Ocean. These Arctic policy milestones are facilitated by a conversation with regional scientific organizations such as the International Council for the Exploration of the Sea, who produce and consolidate scientific knowledge about environmental status of the region.

The private sector is also actively promoting new global and regional initiatives. These include efforts under the UN Global Compact for the Oceans and its action platform for sustainable ocean business (10), with an emphasis on compliance with national and international norms, consideration of ocean health and expansion of the use of the ocean in a sustainable manner. Private foundations are currently involved in work on marine protected areas in the Pacific and elsewhere. The annual 'Our Ocean' conference and other private sector initiatives are emerging as important global meeting places for information exchange and governance innovation. (11)

Governance Challenges and Opportunities

An overarching challenge to global ocean governance is that of transforming short-term economic interests into longer-term actions that promote the responsible management of national as well as transboundary resources and the marine environment. This challenge is evident in many ocean economy sectors, most acutely demonstrated by the insufficient progress in mitigating global climate change. Thus, while some aspects of ocean governance can proceed even in the absence of decisive global action on climate change mitigation, climate change remains a key driver of negative change. Zooming in on ocean-specific governance challenges there are two main issues of concern. The first relates to governance gaps, including missing or weak instruments to address specific existing problems. One such area is that of plastics pollution, another is that of marine genetic resources in areas beyond national jurisdiction. In both cases, there are processes under way to negotiate instruments addressing these issues. With regards to plastics, the UN General Assembly as well as the UN Environment Assembly (UNEA) are addressing options for governance responses, and the World Bank has initiated an effort to assist developing countries to manage their plastic waste. The key challenge is to stop plastics entering the ocean in the first place.

There are also potential governance gaps relating to new technologies and their emerging applications. New technologies, as discussed above, present new opportunities for increasing information about and value-creation from the world's oceans. However, these technologies also present challenges. Firstly, information is rarely innocent. Most of these technologies and data gathering mechanisms can also serve to benefit commercial interests and the creation monopolies or, to some extent, be weaponized and serve national security objectives. Both national security concerns and private sector actors are driving these ocean-relevant technological developments (i.e. drone and unmanned underwater vessel technologies). Secondly, as more information is gathered and processed, issues arise about ownership, access, costs and distribution of information and data. New technology and innovation opportunities raise fresh questions of access and equity between developed and developing countries in the high seas in particular. What should be the norms and regulations addressing transparency, ownership, and equity in data collection, processing and visualization?

A second source of governance gaps exists in the absence of full accession to international agreements and improper or incomplete implementation of them. The former is sometimes a problem, as in the case of China – the biggest global fishing nation – not acceding to the 1995 UNFish Stocks Agreement. Incomplete or absent implementation can be the result of the prioritization of short-term national or business interests as well as capacity-related challenges for some states. For example, in combatting IUU fisheries and fisheries crime, there are a number of initiatives that, if effectively implemented, would address the challenge. Options range from implementing mandatory unique vessel identifiers, as has been proposed by a private sector coalition, through greater sharing of tracking and tax data across national boundaries, to increasing developing countries capacity to exercise their existing commitments as part of flag state jurisdiction. (12)

The challenges of gaps and implementation are part of a broader task for states and international governmental organizations with mandates in this respect. AlsoNGOs, businesses, and the private sector have roles to play in ensuring that developments in multilateral settings, from

the World Trade Organization's discussions on fisheries subsidies to innovative governance work in creative coalitions like the High Level Panel for a Sustainable Ocean Economy, contribute to maintain and develop a collective global order around oceans. To do so requires harnessing the resources and knowledge of many. For example, in 2018 the 1 trillion USD Norwegian Government Pension Fund, formulated and published a document spelling out their expectations to companies regarding sustainable oceans. Progress can also flow from the contributions of NGOs in the independent monitoring of activities.

It is important that this collective, multi-actor order is meaningful so that the growth in ocean interest that we are witnessing translates into tangible changes. Ultimately, they should aim for good results for the oceans and the communities and people that depend on them, and not just 'blue washing' that creates the false appearance of adherence to norms and regulation.

Proposal

Recommendations for Improved Governance

In the following section we spell out recommendations that we consider realistic, effective, and consistent with the priorities of the Japanese presidency of the G20.

First and foremost, G20 states must recognize that our oceans are at risk, and the most significant risk to ocean health is climate change.

Sustainable ocean governance therefore requires immediate and drastic action to reduce and ultimately eliminate anthropogenic greenhouse gas emissions to mitigate climate change and ocean acidification. In addition, the role of the oceans in sequestering carbon should be recognised and supported, in particular through the protection, rehabilitation and regeneration of natural carbon storage banks (blue carbon) such as mangroves, seagrass and seaweed.

More specifically to the ocean-based challenges addressed in this document, G20 states should:

- Take responsibility for the implementation of multi-level existing regulatory frameworks in their own ocean jurisdictions and seek ongoing improvements for effective and rigorous implementation and compliance for vessels under their flag.
- Strengthen G20 national capacity and assist non-G20 countries in building the necessary capacity to implement regulatory frameworks and find ways of using ocean resources to achieve the SDGs. Such measures should include:
 - a. building the science capacity to collect and analyze information, provide scientific advice for management and monitor marine ecosystems, including the capacity to monitor, prognosticate and adapt to the impacts of anthropogenic climate change
 - b. establishing the national legal frameworks that guide conservation and the use of oceans, including, where appropriate, systems for rights-based/communities-based management of resources
 - c. supporting mechanisms for the enforcement of regulations, for example by coast guard operations at sea as well as onshore activities
 - d. harnessing the potential of the regional level for scientific cooperation, management of fisheries, and the protection of the marine environment, including by sharing best practices and lessons from successful regional cooperation, e.g. the International Council for the Exploration of the Sea (ICES) in the North Atlantic and the North Pacific Marine Science Organization (PICES).
- Encourage accession to UNCLOS and its subsidiary agreements (e.g. the 1995 Fish Stocks Agreement) and encourage compatibility between different initiatives to ensure a meaningful coordination and collective order for ocean governance, across multilateral and multilevel settings, including existing and new regional structures/mechanisms within and beyond G20 states.
- Exercise leadership in global governance and institutions with the aim of pursuing multiple SDGs, including by initiating novel and transparent mechanisms for meeting emerging ocean governance issues, with rapid progress through creative coalitions, such as the High Level Panel for a Sustainable Ocean Economy.
- Recognize that multilateral cooperation and organizations and transparent, evidence-based policymaking strengthen the capacity of

realizing national interest, such as in the efforts to reduce and ultimately stop the flow of plastics into the world's oceans, as also highlighted in the Science 20 (S20) Japan 2019 report by the National Academies of Sciences of the G20 countries. (13)

- Establish an expert group to examine the opportunities and challenges linked to the new technologies for collecting, processing, analyzing and accessing data related to oceans. This would entail bringing together actors from the leading edge of innovation in the satellite and drone/subsea technologies technology/data processing fields (in both private and public sectors), ocean governance experts and technology governance scholars. The aim would be to map out the potentially positive and negative consequences of these rapid technological developments and to discuss governance solutions. This expert group could possibly be linked to the High Level Panel for a Sustainable Ocean Economy.
- Encourage consistency with G20 and OECD Guidelines for Multinational Enterprises, which specify how companies should take into account the broader environmental and social consequences of business operations, including ocean issues.
- Work with and support the UN Global Compact for the Oceans in identifying commercial and economic opportunities and in ensuring that investors and companies integrate ocean sustainability into their strategies, policies and commitments by:
 - a) Assessing and being transparent about their dependence and impact on ocean sustainability,
 - b) integrating ocean risks into their risk-management,
 - c) sharing, where practicable, relevant scientific data to support ocean research
 - d) promoting a normative set of principles and expectations for sustainable ocean activities.
- Empower citizens to support ocean health by making it possible to identify products that are consistent with principles of sustainable ocean governance, for instance encourage the further spreading of initiatives such as the Canadian Ocean Wise (14) or the US Seafood Watch (15), making it easier for consumers to make more sustainable seafood choices.

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3 Food and Agriculture Organization (FAO) of the United Nations, 2018

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6 Geyer, Roland, Jenna R. Jambeck and Kara Lavendar Law (2017) "Production, use, and fate of all plastics ever made," Science Advances 3(7): 1-5. <http://advances.sciencemag.org/content/3/7/e1700782>

7 UNCLOS (1982) "Preamble" http://www.un.org/Depts/los/convention_agreements/texts/unclos/preamble.htm

8 On the continental shelf, coastal states have sovereign rights over natural resources also beyond the EEZs.

9 High Level Panel for a Sustainable Ocean Economy, <http://oceanpanel.org>

10 United Nations Global Compact "Action Platform for Sustainable Business" <https://www.unglobalcompact.org/take-action/action->

10 United Nations Global Impact, "Action Platform for Sustainable Business" <https://www.unglobalcompact.org/take-action/action-platforms/ocean>

11 Our Ocean Conference Website Oslo 2019, <https://ourocean2019.no>

12 Nordic Council of Ministers, 2017

13 Science 20 (S20) Japan 2019 "Threats to Coastal and Marine Ecosystems, and Conservation of the Ocean Environment – with Special Attention to Climate Change and Marine Plastic Waste", March. <http://www.scj.go.jp/ja/info/kohyo/pdf/kohyo-24-s20jp2019-1.pdf>

14 Ocean Wise, <http://seafood.ocean.org>

15 Seafood Watch Monterey Bay Aquarium, <https://www.seafoodwatch.org>

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Existing Initiatives & Analysis