

Full length article

Commitments to sustainable fisheries: Empty words or reality?

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ARTICLE INFO

Keywords:

Commitments
Fisheries management
Our Ocean conference
Sustainable fisheries

ABSTRACT

The Our Ocean conferences focus on voluntary commitments by different pledgers in support of actions towards a clean, healthy and productive ocean. We analysed the content and summarised the progress of implementation of the commitments related to sustainable fisheries at the Our Ocean conferences during 2014–2018. A total of 77 different entities provided commitments. Governments was the largest group (34) followed by NGOs (23). The majority (58%) of commitments were related to enforcement, transparency and cooperation. In particular, combating illegal, unreported and unregulated fisheries and support for the port state measures process were the focus of many of the commitments. To increase transparency and effectiveness of commitments, we suggest that more emphasis should be put on documenting and evaluating the impact of commitments. There is good progress in the implementation, and the commitments are largely reality and not empty words. We consider that the commitments have been successful in terms of generating attention and providing funding of projects that are supportive of sustainable fisheries. The diversity of pledgers is large, and an objective gap analysis on requirements for achieving sustainable fisheries regionally could provide pledgers with common ground and further increase the impact of the Our Ocean conferences.

1. Introduction

The world's marine capture fish landings plateaued at about 85 million tonnes in the 1990s and have not increased since [1]. One billion people, largely in developing countries, rely on seafood as their primary source of animal protein. In addition, millions of jobs around the world depend on fisheries, aquaculture and their global markets. Seafood is one of the most traded food commodities in the world [1], and an integral part of many people's livelihoods. There is a trend towards an increase in the proportion of overfished stocks globally [1]. The percentage of overfished fish stocks was recently estimated to be 34%, while 66% of fish stocks are fished sustainably [1].

There are huge discrepancies in the implementation of sustainable fisheries management practices in different parts of the world. Generally, management systems are more developed and better implemented in industrialised countries [2,3]. So, while fish stocks in developed countries are generally harvested sustainably, or moving towards sustainability, the situation in the unassessed stocks in most developing countries is generally far worse [2,4].

In 2014 the US Department of State decided to host a conference, which was going to bring together individuals, experts, practitioners,

advocates, lawmakers, and the international oceans and foreign policy communities to gather lessons learned, share the best science, offer unique perspectives and demonstrate effective actions. This was the start of the Our Ocean conferences, which has the aim of generating actions to contribute to restoring the ocean so that it can continue to provide the needs of future generations [5]. The Our Ocean conference series has become a high-profile platform to present commitments for actions for the oceans [5]. More than 1000 commitments were made during the annual conferences from 2014 to 2019 within six different action areas. The goal of Our Ocean action area sustainable fisheries is to seek “.. commitments to stop overexploitation of fish stocks and combat IUU fishing and fisheries crime, helping to manage fisheries resources at sustainable levels with a long-term, ecosystem-based approach.” This ambition overlaps strongly with the Sustainable Development Goals (SDGs) of the UN. In particular, SDG 14 deals with “Life below water” and goal 14.4 states that overfishing should be ended by 2020 [6,7]. Based on the most updated assessment of FAO [1] this goal will not be met within the given timeframe. Measures to strengthen the sustainability of fisheries are urgently needed if this ambitious goal is to be achieved in the near future. The scope of Our Ocean (<https://ourocean2019.no/areas-of-action/>) clearly supports the UN SDG agenda [7], but is it an

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<https://doi.org/10.1016/j.marpol.2020.104360>

Received 14 April 2020; Received in revised form 1 December 2020; Accepted 8 December 2020

Available online 17 December 2020

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effective instrument in support of this goal?

There are several aspects that are essential to achieving sustainable fisheries management: scientifically based stock assessment and management advice, regulation of access to fisheries and catch restrictions, and enforcement of regulations [8–11]. The implementation of these components requires a legal framework, competent institutions and the political will to put control and implementation strategies in place. Many harvested stocks are widely distributed, often across several national Exclusive Economic Zones (EEZs) as well as in international waters. Achieving sustainable fisheries can, therefore, be highly complex. Nevertheless, the lessons learned by many countries that have invested in these components of fisheries management, are that fisheries can be sustainable and that the effects of harvesting on the rest of the ecosystem can be mitigated [10–12]. A recent study has shown that for scientifically assessed stocks there is an increasing trend in biomass, while for unassessed stocks the average harvest rate is three times higher on average and the biomass is trending downwards [12].

Illegal, unreported and unregulated (IUU) fishing globally is estimated to be between 11 and 26 million tonnes per year [13] www.fao.org. In addition, transnational organized crime undermines the sustainable management of fish resources and threatens the development of a healthy blue economy. Other harmful impacts on marine ecosystems include pollution, littering, acidification, overfishing, and habitat destruction. The global harvest from capture fisheries could increase by about 11 million tonnes if sound management practices (F_{MSY}) were implemented for all commercial stocks [14].

Therefore, there is a substantial potential to increase sustainable fisheries production with improved management. An increasing world population will need 50% more food by 2050, and seafood can play a significant role in this respect.

It is clear that fisheries management can be effective, and ocean areas with less-developed fisheries management have, on average, 3-fold greater harvest rates and half the abundance compared to areas that are intensively managed [12]. However, there is still a long way to go to achieve sustainable fisheries globally [1]. Many Our Oceans commitments have been made over the years to implement actions towards sustainable fisheries, including the provision of funding. We have analysed the content of these commitments and summarised the progress of implementation to evaluate the question: Empty words or reality?

2. Materials and methods

2.1. Self-reporting by pledgers

The background material for this analysis was a list of 182 commitments that were made in the action area sustainable fisheries at the previous five *Our Ocean* conferences (2014–2018). For each commitment, a brief description of the content and contact information was provided.

To assess the progress made by each commitment, questionnaires were emailed to the contact persons between 8 and 12 April 2019. It comprised three questions, with the option of providing “Additional comments”. The questions asked were:

1. To what extent has the commitment been fulfilled (0, 25, 50, 75 or 100%)?
2. Which actions have been undertaken to achieve your commitment?
3. How will these achievements likely impact on the sustainability of the fisheries?

The questionnaire could be answered online or using the form attached to the survey email. The pledgers were asked to report on the implementation and impact of their commitments, using a method similar to that used by Grorud-Colvert et al. [5] in a study of marine protected areas (MPA) commitments made at the *Our Ocean* conferences. Of the 182 contacts who were sent the questionnaire, 156

responded to all three questions, while eight did not complete all of them. Eighteen did not respond, but 10 of these had described the impact of their commitments on the *Our Ocean* webpage, so sufficient information on the progress and outcome was available for our study. Based on this, there is information on the progress of implementation of 95.6% of the commitments.

Information based on self-reporting has its limitations. We base our results, analyses and discussions on the assumption that responders provided correct information. We are not able to verify the validity of this assumption.

A very small number of commitments were made at the first conference in 2014, while most were pledged in 2017 (Table 1).

2.2. Categorisation of the pledgers

Those who made commitments – the pledgers – were categorised into two main groups: Governments and non-governmental. The last group consists of commercial actors, foundations, NGOs, international organisations (like FAO) and research institutions.

2.3. Categorisation of the commitments

Sustainable fisheries depend on coordinated efforts between science, management, the industry and other stakeholders. Based on our experience and best practice in fisheries management [see 8,9,10] we developed a list of 10 components that are important to achieve sustainable fisheries (Table 2). We then categorised the 182 commitments according to these components. Most commitments were relatively well focused and therefore easy to assign to a specific component. Some were of a more diffuse or multi-purpose nature and were categorised according to what we assumed to be the major purpose of the commitment. Commitments that did not fit into any of the 10 components were put in the “other” group.

3. Results

3.1. Categorisation of the pledgers and area of implementation

A total of 77 entities provided commitments. “Governments” made up the largest, with almost half of the entities falling into this group (Fig. 1a). Among the non-governmental pledgers, “NGOs” were the largest group, followed by “foundations” and “international organisations”, “commercial actors” and “research institutions”, respectively. Governments made 65% of the 182 commitments (Fig. 1b). The NGOs were responsible for 20%, and the other groups together accounted for the remaining 15%.

3.2. Progress in implementation of commitments

Most of the projects resulting from commitments made at the first three conferences have been completed, while only 30% of those made in 2017, and 27% in 2018 have been 100% completed (Table 3). The status of some commitments is unknown, possibly because they have yet to be implemented. Four commitments are still in the planning phase (0%) (Table 3). With regards to the degree of implementation, no

Table 1
Number of commitments made each year.

Year	Commitments
2014	6
2015	33
2016	24
2017	71
2018	48
Sum	182

Table 2

Overview of key components for achieving sustainable fisheries: commitment components, explanation and abbreviations.

Component	Elements	Abbreviation
Policies and political will for sustainable development	Priority for sustainable fisheries management. Political and financial institutional instruments.	Policy
Scientific knowledge on status and trends of fisheries resources	Fisheries independent data. Scientific capacity on fish stock assessment.	Science
Management advice	Scientific advice to management on sustainable fishing effort and patterns. Adherence to advice by fisheries managers.	Advice
Fisheries laws, regulations and measures	Modern laws. Relevant and modern regulations. Relevant measures implemented, including those needed to adhere to management advice.	Laws
Fisheries statistics	Data on catch, fishing effort, economics. Registries on fishermen, vessels and licenses.	Statistics
Fisheries monitoring, control and enforcement	Control that fisheries are conducted according to laws and regulations. Control at sea and at landing. Fisheries licenses, registries, etc.	Enforcement
Transparency and traceability	Information on data, advice, fishing permits, licenses, quotas, catches, etc. – easily available in the public domain. Seafood certification and catch documentation schemes.	Transparency
Stakeholder involvement	Good communication and information between stakeholders; science, management, industry and general public. Co-management.	Stakeholders
International cooperation	International fisheries agreements, including shared stocks agreements and RFMOs. Participation in relevant international for a.	Cooperation
Seafood quality, safety and sustainability	Systems for monitoring and control of seafood quality and safety.	Seafood

difference was noted between commitments made by governments or by non-governmental pledgers. Some commitments have a timeframe of up to 10 years, while most have a relatively short time horizon of one to two years. The long timeframe for some commitments may explain why so many still have a completion of only 25% and 50%.

3.3. Geographic distribution of pledgers and commitments

The geographic distribution of governments that made commitments and the areas of implementation are illustrated in Fig. 2. Over the years, the number of participants at the Our Ocean conferences has increased (Fig. 2a). Initially, the major pledgers were governments in Europe and North America. They have had a broad geographic distribution of their commitments (Figs. 2b and 3). Asian countries did not actively participate at the first two conferences, but made many commitments at the conference in Bali, Indonesia in 2018 (Fig. 2a). All commitments made by governments in Asian countries were implemented in Asian countries except for one commitment (Fig. 3). Africa and Oceania have made very few commitments. Generally, the host countries of Our Ocean conferences actively made many commitments. All regions have naturally given most commitments to themselves (Figs. 2b and 3). Europe and North America are the only two regions that have not received commitments from outside. In Europe, the EU is the pledger making the most commitments. However, some EU states have made individual commitments in addition to non-EU members such as Norway and Iceland

(Fig. 2b).

3.4. Thematic distribution of commitments

The distribution of commitments per thematic component ranged widely from 1% to 29% (Fig. 4a). The “Enforcement” component received the most commitments, followed by “Transparency”, “Cooperation” and “Policy” (Figs. 3 and 4a). Eight commitments were categorised in the “Other” group. “Seafood”, “Law” and “Advice” was given the fewest number of commitments (Fig. 4a). There were some notable differences in the priorities of the pledgers. Europe had a high number of commitments in support of “Enforcement” and “Science” (Fig. 4b). South America on the other hand had particular support for “Policy”, while North America and Asia had a more even topical spread of their commitments (Fig. 4b). Overall, governments had a strong emphasis on “Enforcement”, while the non-governmental pledgers had “Transparency” as the most important component with “Enforcement” second (Fig. 4b). “Advice” was also given more commitments by non-governmental groups than by governments.

The commitments with a global implementation focused mainly on “Enforcement”, “Transparency” and “Cooperation” (Fig. 4c). The “Enforcement” category dominated the commitments made for Europe and Africa (Fig. 4c), while “Policy” dominated the commitments made for South America. The categories were more evenly spread for the other geographical areas (Fig. 4c).

3.5. Assessment of impact of commitments

Although many commitments did not have a financial pledge associated with them, 87 of them included a monetary contribution, totalling about 1.6 billion USD (Fig. 5). About 55% of them are from governments and the rest were committed from various non-governmental pledgers. While this is a large amount, it is only indicative of the total effort as there are a lot of commitments without a monetary value. Of those that committed funds, 40 promised less than 2 million USD. Most of the amounts committed were for “Enforcement” and “Cooperation”. Some funding was also provided for “Transparency” and “Policy”, while for the other components the financial contributions were minor (Fig. 5).

The two highest amounts were allocated for building new vessels. Ireland will complete a 286 million USD to naval vessel replacement, tasked primarily with maritime surveillance and fishery protection (Fig. 5). Norway promised more than 150 million USD to promote fisheries development and management abroad, including building a third research vessel to train fisheries experts and managers in developing countries. In addition, the Marisla Foundation announced that it would provide 100 million USD over five years to support projects to end overfishing, improve control, reduce plastic pollution, and protect marine mammals. The organisation Rare committed 100 million USD by 2021 to support sustainable small-scale fisheries, end overfishing, protect critical marine habitats, strengthen access for small-scale fishers to marine resources and improve economic and social resilience. The Thai Union will invest 90 million USD in initiatives to ensure that 100% of all its tuna products are sustainably sourced, with a commitment to achieving a minimum of 75% by 2020. Sustainably sourced tuna is defined as either being certified according to the standards of the Marine Stewardship Council or involved in a fishery improvement project.

4. Discussion

4.1. Our Ocean commitments in a global perspective

The present analysis shows that there is a high degree of completion of the commitments to sustainable fisheries made at the Our Ocean conferences. Although many achievements have been made, e.g. on reduction of IUU fishing [15], there is still a long way to go before the world’s fisheries are sustainably conducted which is one of the targets

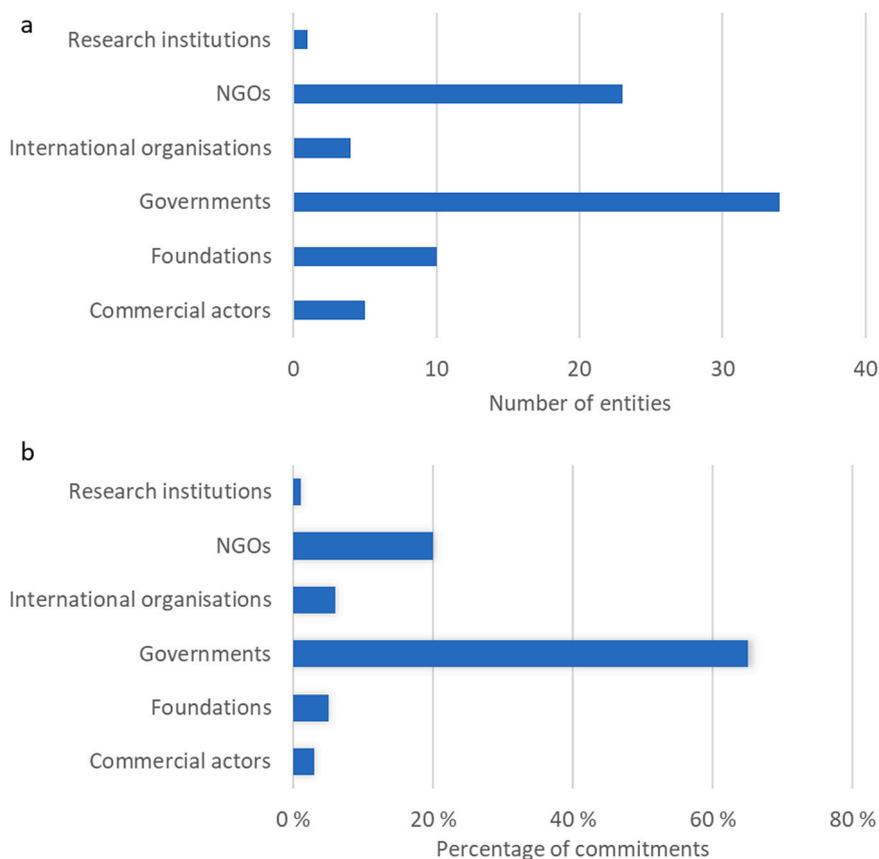


Fig. 1. Categorisation of the of pledgers according to type, and the number of entities per group that had made commitments (a) and the percentage of commitments made per group (b).

Table 3

Degree of completion of implementation of commitments given in different years.

	100%	75%	50%	25%	0%	Unknown	Total
2014	6						6
2015	27	4	2				33
2016	22		1	1			24
2017	24	16	16	11		4	71
2018	13	6	5	16	4	4	48
Total	92	26	24	28	4	8	182

for SDG 14 in the coming years. The Our Ocean conferences and the implementation of related commitments clearly adds to and reinforces the efforts towards this goal.

Over the last decades, considerable efforts have been invested in the development of sustainable fisheries – on a national, regional and global level. Globally, the UN and its subsidiary bodies have played an important role in developing the framework for sustainable fisheries, such as the 1982 UN Law of the Sea Convention (UNCLOS, [16]), the 1995 UN Fish Stocks Agreement (UNFSA, [17]), and the FAO Code of Conduct on Responsible Fisheries [8]. Regionally, collaboration between the coastal states in Regional Fisheries Management Organisations (RFMOs, [8]) has played an important role in addressing and developing sustainable fisheries [12]. At the same time, the process of moving towards sustainable fisheries globally is well embedded in the broader UN sustainable development goals (<https://sustainabledevelopment.un.org/>). To achieve the sustainability goals in fisheries, the international and regional objectives must be implemented by the fishing nations of the world. It is therefore important that all the components of the fishery management system are in operation at the appropriate geographical scale (Table 2). This can be difficult to achieve

with platforms such as Our Ocean with time limited and independent commitments addressing quite different aspects of the management systems. This may limit the value of such instruments as the development of a good management system needs long term commitment.

The degree to which the Our Ocean conferences has motivated new commitments as opposed to being “an outlet” for an already planned action is difficult to assess. But it is clear that some of the pledgers are using the conferences in this way. So while there are many commitments and a high level of funding, the level of “additional funding” generated through the conference series is difficult to estimate.

4.2. Impact of the Our Ocean commitments on sustainable fisheries

In a global perspective, the Our Ocean commitments are significant, but still limited compared to the overall efforts towards sustainable fisheries. It is therefore important that the Our Ocean commitments are aligned with ongoing initiatives and efforts, to create synergies and reinforce the implementation of initiatives addressing the 10 components that are key to achieve sustainable fisheries (Table 2). An objective gap analysis on requirements for achieving sustainable fisheries regionally could be useful as a basis for a more systematic approach to commitments. Such an analysis could draw heavily on other global processes such as the review conferences of the UN Fish Stocks Agreement [17]. The aim of such a gap analysis would be to provide the different pledgers with a list of themes for commitments considered by experts to be key to achieve sustainable fisheries on a regional level. This could make it easier for potential pledgers to collaborate on complementary commitments that in sum would increase the impact of the Our Ocean commitments on sustainable fisheries. There is considerable diversity in the pledgers (Fig. 1) and by providing such a gap analysis, pledgers would have a common ground for making commitments.

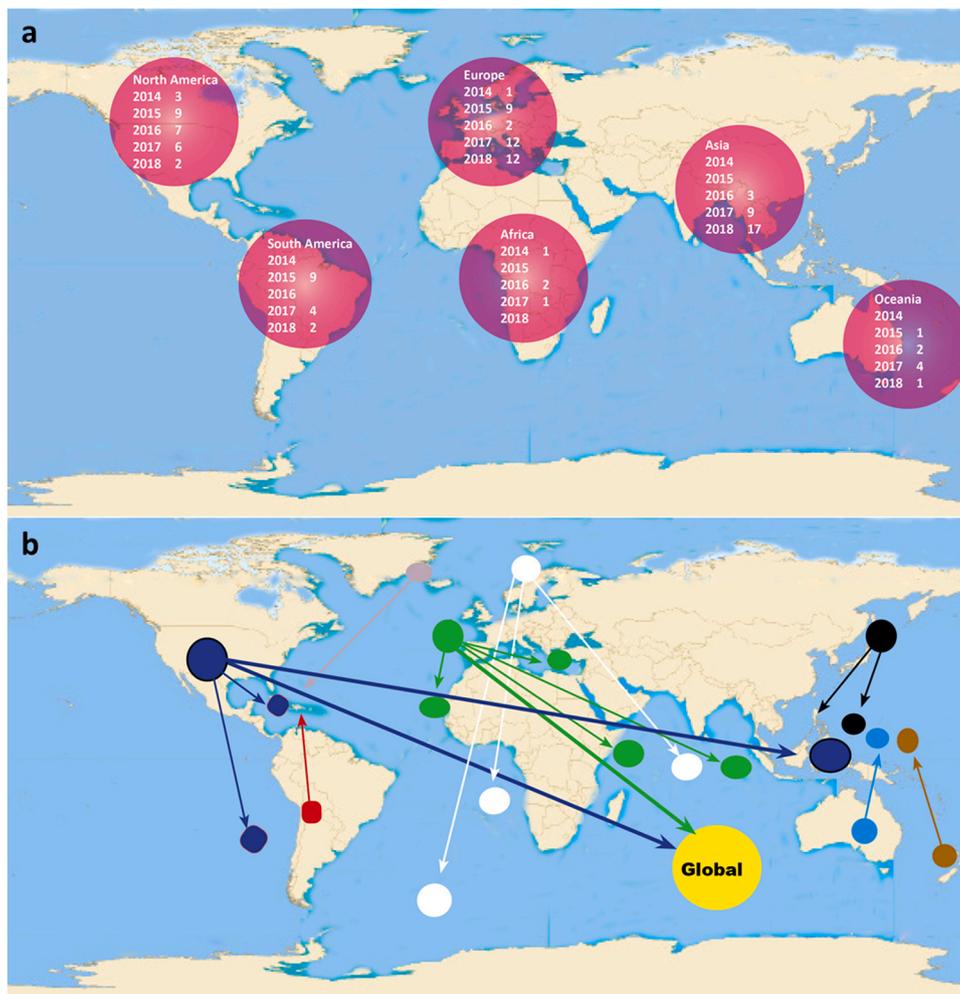


Fig. 2. Number of commitments made by the regions each year (a), and location of pledgers and geographic area of implementation (b).

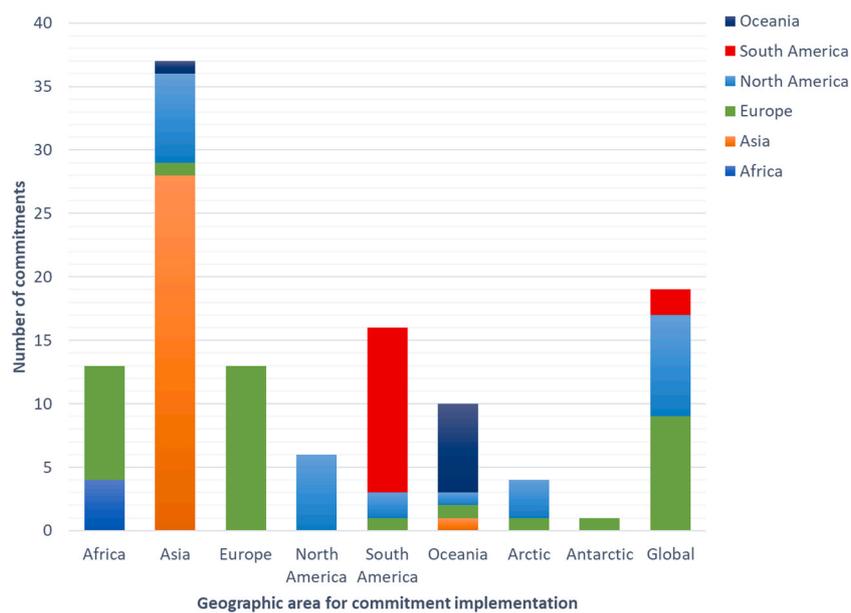


Fig. 3. Distribution of geographical area of implementation of commitments by pledging governments.

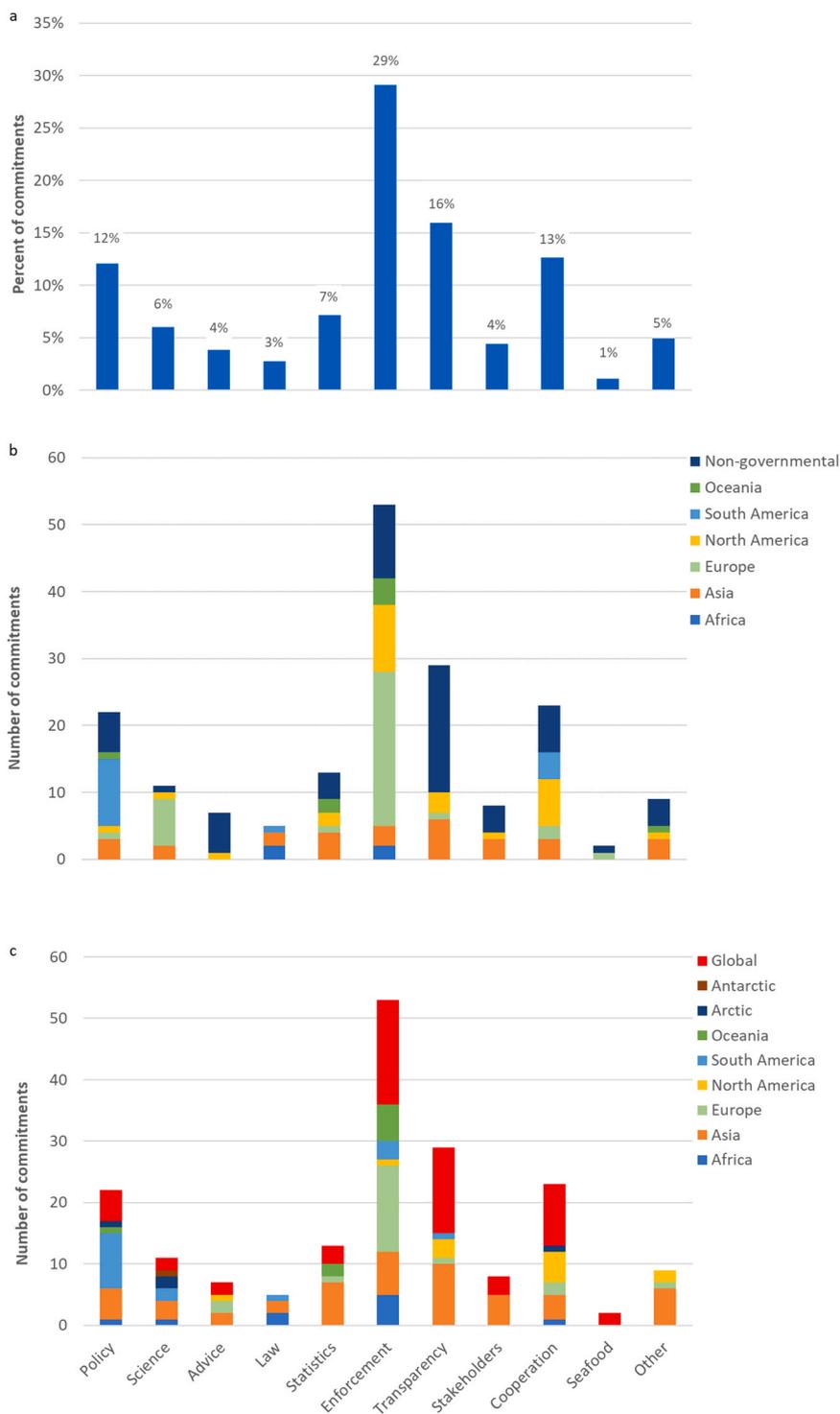


Fig. 4. Distribution of commitments per category grouped by share of total number of commitments (a), by governments and non-governmental pledgers (b), and by the area of implementation (c).

Many commitments support the international agreement on port state control measures (PSMA). The PSMA has proven to be an important tool to combat fisheries crime, for example in areas such as the Barents Sea [18] and the Antarctica. Also, as IUU fishing vessels or freighters/reefers are denied unloading of fish without proper catch documentation. This has a direct negative effect on profitability and is thus an important driver to reduce IUU fishing. Also, transparency and seafood traceability can have a direct effect on the profitability of fisheries. If seafood products do not meet the sustainability criteria of certification

regimes, fisheries and/or seafood products can be excluded from markets. Reduction of profit due to increasing demand for transparency and traceability in fisheries is therefore a potentially powerful tool that should be further developed to fight illegal fisheries and increase fisheries sustainability in general.

Many fish stocks are distributed in the waters (EEZs) of two or more coastal states – or in international waters. Shared stocks agreements between the different nations with ownership to such stocks is a basic requirement for sustainable management. Although the UN agreement

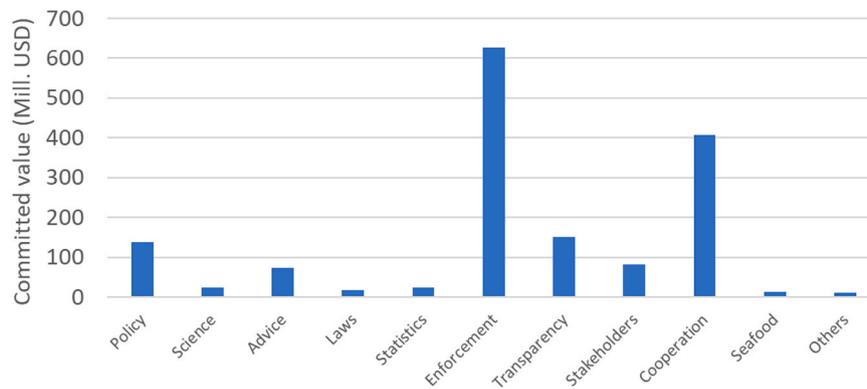


Fig. 5. Overview of committed funding by commitment category.

on straddling and highly migratory fish stocks (1995) was ratified in 2001, a large majority of coastal states have still not entered into joint fish stocks agreements. However, in the context of the Our Ocean sustainable fisheries commitments, we find no commitment supporting processes towards shared stock agreements.

Fisheries subsidies are a major obstacle for the development of sustainable fisheries, as subsidies allow continued profitable fishing on overfished stocks and tend to accelerate stock depletion. Despite years of negotiations in WTO to reduce fisheries subsidies, the global annual subsidies in the fishing sector is estimated at 35 billion USD [19]. In this study, we found only 3 commitments (USA/New Zealand, USA and EU) addressing the important topic of reducing/eliminating harmful fisheries subsidies.

Control of fisheries at sea and at landing is complicated and costly. Complete elimination of illegal and unsustainable fishing practices is difficult, but new technology enable us to track vessels and monitor ports. Increased focus on transparency and traceability is therefore an interesting development, as this creates a direct link between sustainability and profitability. In this respect, the change of consumer attitudes towards a demand for sustainability can develop into a powerful tool for sustainable fisheries, as this demand trickles down the seafood supply chain to the primary producers, and affect their market access and prices for their products. Here we also see the development of interesting alliances between industry and science as in “Seafood Business for Ocean Stewardship” (SeaBOS) – that “connects the global seafood business to science, connects wild capture fisheries to aquaculture, and connects European and North American companies to Asian companies. The ambition is to lead a global transformation towards sustainable seafood production and a healthy ocean” - <https://solutionsforseafood.org/cass-resources/seafood-business-ocean-stewardship-seabos/>. See also Osterblom et al. [20] that have investigated the role of the seafood industry in the development towards sustainability and Howard [21] on stakeholder effects on sustainability.

4.3. Do the commitments match the key challenges?

It is widely recognised that challenges in fisheries management varies between different parts of the world [2,3]. Each component of the management system is important, and political will to use the system and to manage has impact on all the other components. The policy category made up 12% of the commitments. In our opinion this is a crucial element in achieving sustainable fisheries and should have received more attention both in terms of number of commitments and their level of impact. Long-term commitment is imperative to build and empower the institutions needed to conduct proper fisheries management.

International cooperation is crucial in the development of a sustainable management for widely distributed and straddling stocks. A total of 13% of the commitments addressed this issue. International

cooperation is of utmost importance across the different components of sustainable fisheries. The distribution of fish resources is seldom limited to national boundaries, and cooperation is therefore important. The management of living marine resources is typically a regional task, and fish resources cannot be managed properly if only a part of a resource is under a well-developed system. The RFMOs are important instruments for a sustainable management of such fisheries [18], although their efficiency has been questioned [22]. In the North Atlantic, there are several RFMOs including the North East Atlantic Fishery Commission (NEAFC) and the North West Atlantic Fishery Commission (NAFO), that manage fishery resources in their respective areas. These RFMOs have legal authority and decide the total allowable catch and other fishery regulation measures. The decisions are based on negotiations between members of the RFMOs. In the south Atlantic there are no RFMOs with legal authority for the management of the fish resources in the EEZs, except the International Commission for the Conservation of Atlantic Tuna, ICCAT. All fisheries in the EEZs in the south Atlantic are therefore managed only on a national basis. Support for regional fisheries management in the south Atlantic through the Our Ocean conferences could therefore be valuable.

The enforcement component had the highest number of commitments, and most were related to combatting IUU-fisheries. For fisheries management to be effective, strict enforcement of the regulations of the fishing activity is needed [8]. The intent of regulations is usually to limit effort in fisheries, and enforcement measures are vital to ensure that regulations are complied with by fishers. The PSMA is the first binding international agreement to specifically address IUU fishing [23]. Its objective is to prevent, deter and eliminate IUU fishing by preventing vessels engaged in IUU fishing from using ports and landing their catches. Several of the Our Ocean commitments addressed the PSMA and we consider that these contributions were important in mobilizing countries to get the agreement ratified.

Scientific knowledge of the resources is a real challenge in many regions of the world [2,11]. Strengthening science for sustainable fisheries was the focus of 6% of the commitments. It is well known that there is a huge demand for this kind of knowledge in many regions of the world [24]. In addition to knowledge about the resources, there is a need for more knowledge about the effects of climate change on fisheries. Ocean climate varies and affects living marine resources, both in terms of abundance and in terms of geographical distribution, and thus availability for the fishers [1,25]. There is thus a constant need for updated information as basis for sustainable management of ecosystems and resources. The harvest rate for non-assessed stocks has been shown to be three times higher than in assessed stocks in a global meta-analysis [12]. Furthermore, the analysis showed that while there is an increasing biomass trend in the assessed stocks, the non-assessed stocks show a decreasing trend. Scientific assessments and advice are therefore key components in sustainable fisheries. We consider that science and advice has received too little attention in the Our Ocean commitments (Fig. 4),

and a considerable strengthening of this element at the national and regional level is needed to achieve sustainable fisheries globally [2,12]. To monitor stocks on a regular basis is expensive. Building and operating fishery research vessels require significant funding, appropriate competence and a long term commitment. Many countries find it tough to allocate resources for this purpose on a long-term basis. International cooperation and a regional approach may be very beneficial for this kind of work and needs further development.

4.4. Concluding remarks and recommendations

A large majority of the commitments within Our Ocean have been implemented while some recent commitments remain to be finalized. We have shown that the commitments are spread rather unevenly among the different components that are essential for achieving sustainable fisheries. In particular there has been a lot of support for enforcement and combatting of IUU fisheries, which will require continued attention. However, we also recognise that there are important components such as laws, science and management advice that have less support. We recommend that Our Ocean should increase focus and support for the RFMOs and the regional collaboration on scientific assessments and management, which is critical for sustainable fisheries [12].

Neumann and Unger [26] call for a more effective and transparent review systems associated with ocean pledges to be able to link pledged commitments to actual implementation. To increase the transparency and effectiveness of commitments, more emphasis should be put on documenting and evaluating their impact.

We consider that the Our Ocean commitments in sustainable fisheries overall have been successful in terms of generating attention to the issue and funding projects that are supportive of sustainable fisheries. But we also consider that the challenges recognised internationally as critical in developing sustainable fisheries are substantial, and that the efforts supported by Our Ocean in this respect may have a limited impact.

There is good progress in the implementation of the Our Ocean commitments in sustainable fisheries and the commitments are largely being realised and are not empty words. However, to achieve effective fisheries management and sustainable fisheries, it is important that all the components of fisheries management system are in operation over time [8]. The diversity among the pledgers is considerable, and an objective gap analysis on requirements for achieving sustainable fisheries regionally could provide pledgers with common ground and further increase the impact of the Our Ocean conferences. We suggest that this is considered in future Our Ocean conferences.

CRedit authorship contribution statement

Geir Huse: Conceptualisation, Methodology, Writing - original draft, Writing - review & editing. **Åsmund Bjordal:** Methodology, Writing - original draft. **Harald Loeng:** Methodology, Investigation, Data curation, Writing - original draft. **Kari Østervold Toft:** Methodology, Investigation, Data curation, Visualisation. **Reidar Toresen:** Methodology, Writing - original draft.

Acknowledgements

We thank Alf Håkon Hoel and two anonymous referees for valuable comments on a previous version of this paper. We acknowledge The Norwegian Ministry of Foreign Affairs (Grant number 18/885) for the financial support for this study.

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