

# Blue Food for Thought

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## Introduction

Will 2021 be a *super year* for the ocean? Those working to protect marine biodiversity hope so, after the global pandemic led to the cancellation or postponement of a line-up of potentially catalytic events in 2020. But with the pandemic forecasted to stretch far into 2021, and possibly even 2022 if vaccines prove less effective against emerging variants, those hopes may rapidly fade. To be sure, much can be accomplished even in the absence of face-to-face international gatherings, bolstered by exciting political developments such as the election of Ngozi Okonjo-Iweala (who has made ending harmful fisheries subsidies a top priority) as the new Director-General of the WTO, the return of a conservation-minded Administration in the US, or the launch of the UN Decade of Ocean Science for Sustainable Development (2021-2030).

But forced confinement presented us with an opportunity to sit back and reflect on past campaigns we have run and present efforts we support, and to consider *out-of-the-box* ideas for the future of ocean protection. These ideas stem from our own decades of experience working on ocean policy, and campaigning for fundamental changes in how the ocean is used.

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Everyone working to protect marine biodiversity has at least one thing in common: a deep and abiding love for the ocean. In this spirit, we are taking the opportunity to share our thoughts with the ocean community, and look forward to hearing feedback – and other ideas.

Issues addressed in this paper include: an alternative approach to Marine Protected Areas (making marine life and habitat protection the rule rather than the exception, at least in the high seas); reform of the management and conservation of large fish species and populations; financing sustainable development and the replenishment of marine life (via bilateral, regional and multilateral Subsidies Elimination Agreements rechanneling government fisheries subsidies); and stopping the flow of plastic into the environment.

### **Ocean of hope**

Many ocean advocates hope that the decision-making international gatherings postponed in 2020 will take place in 2021: the Conference of the Parties to the Convention on Biological Diversity ([CBD COP15](#)) in Kunming, China, the 26<sup>th</sup> Conference of the Parties to the UN Framework Convention on Climate Change ([UNFCCC COP26](#)) in Glasgow, Scotland, as well as the fourth (and hopefully final) session of the Intergovernmental Conference on an international legally binding instrument on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction ([BBNJ](#)). These three conferences are expected to be decisive for unlocking key conservation objectives for the next decade.

Other key meetings that were on the 2020 agenda, however, have already been postponed into 2022. A [High-Level UN Ocean Conference](#) in Lisbon, Portugal to review progress on the implementation of the Sustainable Development Goal for the Ocean ([SDG14](#)) will not take place before 2022 and “[as soon as public health conditions allow](#)” according to the President of the UN General Assembly. A decision on the launch of global convention on plastic litter expected at the [5<sup>th</sup> UN Environment Assembly](#) in Nairobi, Kenya will also have to wait at least until next year.

In order to maintain momentum in 2020, some multilateral meetings took place online, but limitations inherent to “virtual meetings” prevented reaching agreements sought by ocean advocates. For example in October 2020, at the virtual meeting of the Convention for the Conservation of Antarctic Living Resources ([CCAMLR](#)), the Russian Federation and China said more in-depth consultations were needed before they would consider lifting their opposition to the designation of three marine protected areas in the Southern Seas around the Antarctic continent, a goal that requires a consensus agreement and which all other CCAMLR Parties have been striving towards for years.

Likewise, the World Trade Organization ([WTO](#)) has failed to stay on course to comply with its SDG14 mandate to eliminate by 2020 fisheries subsidies that contribute to overfishing, overcapacity and “IUU” (illegal, unreported and unregulated) fishing. The pandemic has taught everyone to meet and talk online, but multilateral negotiations require informal “corridor consultations” that rely on physical presence to build trust and reach deals. We shall certainly travel less for meetings and conferences after the pandemic has passed, but physical meetings will not completely disappear, even if hybrid formats will remain.

### **Progress nonetheless?**

2020 ended with the launch of the report of the [High Level Panel for a Sustainable Ocean Economy](#), made up of the Heads of State and Government of 14 countries pledging to put sustainability at the heart of ocean management, production and protection. The sustainable blue economy is seen as an essential component of the green economy. In the words of the EU Commissioner for Environment and Ocean, Virginijus Sinkevičius: “green without blue is yellow.”

And to kick-start 2021, on 11 January the Government of France hosted in collaboration with the UN, the World Bank and other countries the third edition of its [One Planet Summits](#), which was focussed this time on biodiversity, including the ocean. A [High Ambition Coalition \(HAC\) for Nature and People](#) was launched there, made up of more than 45 countries. The coalition is co-chaired by Costa Rica and France, and by the UK serving as Ocean Co-Chair for the marine aspects of the initiative. Its purpose is to champion a global deal to halt the growing loss of species and vital ecosystems on land and seas. HAC members are signing up to the so-called [30x30 goal](#) which consists in pursuing the protection of 30% of our planet – land and seas – by 2030.

### **Ocean of distress**

Looking in the rear-view mirror, however, on the one hand we find it hard to get excited by this new pledge, because 30x30 is a new iteration of a failed 2010 CBD commitment known as [Aichi Target 11](#) to protect within 10 years 17% of the land and 10% of ocean and coastal areas. And that 2010 commitment itself was also preceded by another pledge to “end biodiversity loss by 2010” made at the World Summit on Sustainable Development in Johannesburg in 2002 ([Rio+10](#)). It is thus tempting to disqualify it all as just so much “blah-blah” as the young Swedish activist [Greta Thunberg did](#) on the day of the One Planet Summit. Why should we believe governments this time, when we know they did not put their words into action when their stated ambition was even lower? The granting of 61 new licences for offshore oil and gas exploitation by the Government of Norway just a few weeks after its Prime Minister Erna Solberg had launched the report of the High Level Panel for a Sustainable Ocean Economy which she chaired [also raised questions inevitably about the true level of ambition](#) of its members.

On the other hand, however, looking further into the rear-view mirror, the first UN Conference on the Human Environment (Stockholm, 1972) which triggered the genesis of the modern environmental movement looms large. The contemporary environmental laws and multilateral regulations that stemmed from that conference created a safety net that bought us time by limiting or delaying environmental damage. The global environment is undeniably in a very deep crisis, but it is hard to overstate how much worse it could have been without that safety net. In other words, just because efforts do not accomplish everything we would wish, it cannot be said that those efforts have been wasted. Achievements can be strengthened over time. While this notion is not new to anyone working in the policy community, we would like to provide a historic example as it shapes so much of our thinking about campaigning for policy (and we pick up this example again in further detail later in the paper).

A few weeks after the 1972 UN Conference, the first global treaty for the prevention of marine pollution was adopted, known at the time as the [London Dumping Convention](#), and a year later the so-called [MARPOL](#) Convention to prevent pollution from shipping was also enacted. After these treaties entered into force, dumping or discharging wastes from ships would [soon no longer be regarded as acceptable](#). The 1972 Conference also marked the creation of the UN Environment Programme ([UNEP](#)) at the origin of a [Regional Seas Programme](#) started in the mid’1970s, whereby coastal states and their scientists started to work together to protect their shared seas beyond borders. Some great achievements indeed, in the context of half a century ago.

The problem is that the holes in the post-1972 safety net were too wide to stop the flow. And the London Dumping Convention still allowed the dumping at sea of barrels of radioactively contaminated wastes. It took years of sustained high-profile public campaigning combined with behind-the-scenes political advocacy before the Parties to the LDC adopted in 1993 a binding amendment banning the deliberate dumping of industrial waste at sea. Three years later, in 1996, the “London Protocol” was adopted to modernize the convention, and then replaced it – the convention is now simply called the

London Convention, after the word “dumping” was dropped in recognition of the need to shift away from ocean dumping as we had proposed.<sup>2</sup>

But despite a number of notable successes (the protection of Antarctica from mining in 1991, the ban on incineration of wastes at sea in 1990, or the ban on nuclear weapons testing in 1996 to name a few), the safety net has become increasingly fragile over time, as environmental problems have become more intractable, for reasons everyone is aware of and that won't be repeated here.

Next year will mark the 50<sup>th</sup> anniversary of the 1972 UN Conference which took place half a century ago in Greta Thunberg's home city of Stockholm. The anger and concern of young people for their future is more than justified and we owe it to them to plug the holes in the safety net and modernize environmental policy and law – adapting it to the dire times our planetary environment and the natural world are going to experience according to the findings of the Intergovernmental Panel on Climate Change ([IPCC](#)) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services ([IPBES](#)).

This is of course what the ocean community is striving to do. Here are a few of the “out of the box” ideas we have been thinking about for some time.

### **Marine Exploitable Areas (Reverse Listing)**

As ocean advocates continue to fight an uphill battle which is taking years to seek the designation of an increasing number of marine protected areas around the world, let alone their proper management, would it be worthwhile to explore another option that would consist in designating *marine exploitable areas* instead? A *reverse listing* approach whereby extraction would be the exception rather than the norm?

Accordingly, those seeking a licence to exploit ocean space and resources would have to demonstrate to competent authorities that their activities cause no harm to marine biodiversity and habitats, or put remedial measures in place. Instead of ocean advocates having to demonstrate that protection is feasible, industry advocates would be required to demonstrate that exploitation is environmentally safe, with a negligible or acceptable environmental footprint. This new approach would effectively shift the burden of proof to prospective fishing corporations, shipping companies or mining conglomerates, who would also need to show the absence of alternatives to their proposed extractive activities.

Aichi Target 11 and now the 30x30 campaign are reflecting a growing consensus on the need to build effective networks of MPAs. But implementation is always a very long journey. Even in a country like New Zealand that one would think is very much inclined towards protecting its marine territory and has the means to do so, it is taking years to declare an ocean sanctuary within one of its most pristine marine biodiversity hotspots, the waters around the [Kermadec Archipelago](#). And even the designation of a marine protected area does not automatically mean species and habitats are protected. In December 2020, the specialized NGO Oceana estimated that [96% of European marine parks](#) allow destructive activities within their boundaries. The expression “[paper parks](#)” has become commonplace in environmental policy literature.

According to the [World Database on Protected Areas](#), which records information submitted by countries, more than 15,000 MPAs protect more than 27 million square kilometres of ocean. In other

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<sup>2</sup> See Paragraphs 4.24 and 4.25 of the Report of the 15<sup>th</sup> Consultative Meeting of the Parties to the London Convention, 1992: <https://bit.ly/3rAktgk>

words, nearly 7.5% of the ocean, an area the size of North America, is under some kind of protection. But MPA designations can mean many different things. The International Union for the Conservation of Nature (IUCN) has traditionally recognized [six different categories of MPAs](#), ranging from strict nature reserves to protected areas with “sustainable use” of natural resources. [Lubchenco et al/ \(2018\)](#) have shown that fully or highly protected areas are the most effective tools to restore marine biodiversity, but currently they make up only just 2% of all Marine Protected Areas. The existence of insufficiently effective Marine Protected Areas can thus be due to a lack of capacity by a country to enforce its own intentions or laws, as it had been said for example of the Phoenix Islands Protected Areas (PIPA) in the Republic of Kiribati in the South Pacific, a country with an Exclusive Economic Zone larger than the continental United States, before the establishment of a [partnership and trust fund](#) in 2015 to improve management and control. It can also be due to deliberate *laissez-faire* as in the case of certain marine parks [failing to ban industrial fisheries](#) or even [seabed mining](#).

Ongoing conversations and negotiations on the conservation and sustainable use of marine biodiversity beyond national jurisdiction (BBNJ) could serve as an opportunity to explore whether (and if so how) such a reverse listing approach could apply to the high seas. Areas beyond national jurisdiction, also known as the high seas, represent 64% of the world ocean’s surface which is equivalent to 45% of the Earth’s surface and 95% of the ocean’s volume. Ocean advocates have invested considerable energy and resources in the BBNJ negotiations over the last decade.

But even if the multilateral agreement they seek under the UN Convention on the Law of the Sea to improve high seas governance and conservation is adopted this or next year, it will take considerable additional efforts to reach consensus on the area-based management tools needed to implement it, such as high seas marine protected areas. Even after its adoption and its entry into force (which will also take some time), the Parties to the BBNJ agreement are unlikely to reach consensus overnight on where and how to designate and manage marine protected areas in the high seas.

If it could be agreed from the outset that it is the responsibility of the users of ocean space and resources to prove that their action would not cause undue harm to marine biodiversity, it would set a powerful, game-changing precedent. If we imagine the future BBNJ agreement as the chessboard on which the international community’s efforts to improve the conservation and sustainability of high seas biodiversity will play out, ocean life would be in a much better position if the departing point was protection rather than exploitation. While RFMOs manage ongoing fishing operations, a reverse listing approach under the BBNJ agreement could also serve to identify which fishing operations are acceptable and which ones are not. For example, under the BBNJ agreement, reverse listing could become an effective tool to secure that the obligation to conduct Environmental Impact Assessments (EIAs) enshrined in the draft agreement, is fully implemented and EIAs’ conclusions taken into account.

Alternatively, or in addition, reverse listing could also be envisaged in the framework of certain regional agreements. For example, at the recent One Planet Summit, the Union for the Mediterranean announced that it would draw an [Action Plan for Exemplary Mediterranean by 2030](#) that would revolve around four pillars, including raising ambition for the preservation of marine biodiversity, ending overfishing by 2030, redoubling efforts against marine pollution and the greening of the shipping sector. Applying the reverse listing approach in the Southern Ocean under the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) could also be a solution to remove the obstacles to the designation of marine protected areas in that region. Rather than fighting to reach agreements on the designation of marine protected areas, ocean advocates would watch industry fighting to reach agreements on the designation of marine exploitable areas. And all areas not designated as marine exploitable areas would by definition be protected.

This approach may seem far-fetched, given the roadblocks to achieving more modest protections. But as the London Convention and other past examples show, having powerful aspirational goals (combined with high-profile public campaigning) can be key to generating the kind of public support and demand for action that protecting the ocean entails. All the more so when governments have already gone on the record committing to reverse the loss of biodiversity and so forth. There is no crisis without opportunity, and there may be a [precedent](#) in the International Agreement to Prevent Unregulated Fishing in the High Seas of the Central Arctic prompted by climate change and signed in 2018 by Canada, China, Denmark, the EU, Iceland, Japan, the Republic of Korea, Norway, the Russian Federation and the USA, which prevents commercial fisheries until science-based management and control are in place.

**NGOs, Scientists, Governments, and Intergovernmental organizations could:**

Push to shift the burden of proof through a reverse listing approach whereby prospective extractors and users would be required to apply for licences in Marine Exploitable Areas to use ocean space and resources. Seascape outside of these areas would by definition become Marine Protected Areas.

Address this proposal within the context of the UN Decade of Ocean Science for Sustainable Development under the auspices of UNESCO's Intergovernmental Oceanographic Commission (2021-2030), the BBNJ negotiations and regional fora.

Plan to discuss consideration of this precautionary approach at the High-Level UN Ocean Conference to be held in Lisbon in 2022, taking into consideration deliberations on the 30x30 MPA proposal by the Parties to the Convention on Biological Diversity at their 15<sup>th</sup> Conference of the Parties.

### **Numerical Management of Large Fish Populations**

Has the time come for large fish fisheries (tuna, sword fish, sharks, marlin...) to substitute quotas and catch limits currently established by weight (tons of fish), with numerical management whereby quotas would be set by number of fish ("heads or tails")? If properly monitored and controlled (with modern technology such as CCTV, sensors and artificial intelligence this can be done), such an approach could have considerable conservation benefits:

- Moving away from the consideration of fish as mere commodities;
- More rigorous knowledge of the number of fish caught, hence better estimates of population levels;
- Better enforcement of catch limits (especially for certain tuna species that are caught when they are juvenile, including to be fattened in ponds); and
- Easier policing of fishing operations and fish trade.

In 2003, [a study published in Nature](#) by Myers and Worm of Dalhousie University estimated that 80% to 90% of the biomass of large fish – tuna, swordfish, and marlin – had vanished in recent decades, essentially due to overfishing by industrial fishing fleets. While the 80%-90% figure has been [disputed](#), even if a more accurate figure were – say conservatively – 50% or 40%, the loss could still be a cause for concern given wider ecosystem impacts and the role large predatory fish play in the marine food chain, and consequently for human food security. There is no question that fish stocks have continued to shrink in the last 18 years since that paper was published, and that the world's fisheries are at far from sustainable levels. Indeed we are nowhere near the goal agreed two decades ago at the World Summit on Sustainable Development, to put an "end to the loss of biodiversity," let alone the Sustainable Development Goal to "by 2020, effectively regulate harvesting and end overfishing, illegal, unreported

and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible [...]"<sup>3</sup>

The Myers and Worm study was one of many signals calling for action against overfishing at the beginning of this century. Between 2004 and 2006 the OECD Roundtable on Sustainable Development hosted a ministerial task force on illegal, unreported and unregulated (IUU) fishing in the high seas which recommended in its [Closing the Net](#) report, measures to improve monitoring and reporting. Separately at the same time, the UN General Assembly (UNGA) discussed a proposal originally tabled by Costa Rica, to establish a moratorium on high seas bottom trawling, a non-selective and destructive fishing method that had been expanding within areas beyond national jurisdiction.<sup>4</sup> One major problem in tuna fisheries management is the increased capture of juveniles which is affecting the sustainability of populations. According to a report on juvenile tuna fisheries commissioned by the [Global Tuna Alliance](#), a consortium of companies and organizations seeking to improve the sustainability and traceability of tuna fisheries, in 2019 50.5% of the catch in weight of yellowfin tuna in the Indian Ocean was below the optimal length. In some areas like the Mediterranean, Bluefin tuna is caught at a young age to be fed in ponds; the smaller the fish, the more that get caught if weight is the management unit. The capture of juveniles can also be enhanced by the use of Fish Aggregating Devices ([FADs](#)) which are proliferating around the world as a way to mitigate the rarefaction of the resource. Research commissioned by the Global Tuna Alliance indicates that around 90% of tuna caught with Purse Seine FADs in the Indian Ocean are juveniles. Pole and line and gillnets are also fishing gear with considerable impact on juvenile yellowfin tuna.

In a recent study Creech and Gunasekera (2020) highlight how the Indian Ocean Tuna Commission ([IOTC](#))'s management focused on the Maximum Sustainable Yield framework (MSY) which does not take into account the fundamental fact that one ton caught by a given gear or fishing modality that captures mostly juvenile tuna will contain a vastly larger number of individual fish than one tonne caught by a gear that captures mostly mature tuna. According to preliminary calculations Tom Pickerell, Executive Director of the Tuna Alliance shared with us, putting a numerical example, one tonne of yellowfin caught by the FAD-based purse seine fishery would include 175 individual tunas, based on the average weight of 5.7 kg estimated from Báez *et al.* (2018). In contrast, one tonne of yellowfin in the Maldivian hand-line fishery would include just over 29 individuals, based on a theoretical average weight of 34 kg for 2019.

Numerical management would allow control over the size (and therefore the age groups) of individual fish, currently made difficult as long as management remains weight-based. Numerical management would require technical adaptation on board fishing vessels: scales used to record weight of harvest fish would have to be replaced by CCTV, sensors and other IT devices. As world governments are committed to eliminating subsidies contributing to overfishing, overcapacity and IUU fishing, in accordance with SDG14 Target 6 (see below), public money could be rechannelled to develop state-of-the art numerical management tools and equip fishing fleets chasing large fish.

History shows us that it was the adoption of numerical management by the International Whaling Commission ([IWC](#)) in the mid-1970s, in response to the call for a moratorium on commercial whaling by the 1972 Stockholm conference, that saved the great whales from extinction. Before 1975, the IWC was implementing a commodities approach to whale "stocks" very much like RFMOs do today with large fish "stocks;" the unit of measurement was the "Blue Whale Unit" (BWU) equivalent to one blue whale, two

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<sup>3</sup> Abstract from SDG14 Target 4, 2015.

<sup>4</sup> No consensus was reached in favour of a moratorium, but instead in 2006 the UNGA adopted a resolution calling upon Regional Fisheries Management Organizations (RFMOs) to conduct Environmental Impact Assessments (EIA) to avoid irreversible damage from high seas fisheries to vulnerable marine ecosystems.

fin whales, two and a half humpback whales or six sei whales (based on the relative amount of whale oil that each species yielded). As the catch per unit effort to take “one unit in one shot” made economic sense (only one harpoon gun, only one chase, less fuel consumption, etc.) the whaling industry gave priority to blue whales, and this is how these were brought to near extinction. This changed when the IWC was forced to allocate catch limits specific to whale species and identified separate populations, in accordance with a new management procedure that was put in place in 1974-1975. Nearly fifty years later, a similar shift by RFMOs to the numerical management of large fish, given their shrinking populations (“stocks”) – comparable to the decline of the great whales in the 1960s and 1970s – could replenish the ocean and help restore marine ecosystems.

Many of the large fish are similar in size to dolphins. To understand the absurdity of the current system, just imagine describing incidental catches of dolphins or porpoises in terms of “tonnes of dolphins.” Even in the case of directed catch, like those taking place in some areas of Japan or in the Faroe Islands (pilot whales), the unit of measure is the number of animals killed, not their weight. As tuna, swordfish and shark populations continue to shrink to unsustainable levels, we should learn from the experience acquired with the contemporary management of marine mammals.

**Governments, UN FAO, or individual RFMOs could:**

Commission a technical paper considering the case for numerical management.

Organize and host scientific workshop(s) to consider large fish numerical management, and seek views from fisheries scientists and regulators and private sector organizations.

Present the workshop’s recommendations in relevant fora, including the UN Decade of Ocean Science for Sustainable Development and the IOC, the UN Ocean Conference, IUCN, FAO’s Committee on Fisheries, and RFMOs.

Consider the adoption of numerical management i.e. by one or more RFMOs, for example as a pilot project to begin with.

**Subsidies Elimination Agreement and Fleet Disarmament Agreements: WTO SEA and SEA SALT**

Should fishing nations chasing the same fish consider bilateral or/and regional “fleet disarmament” agreements to decrease the intensity of their fishing operations on vulnerable fish populations (known as “fish stocks” in conventional fisheries management)? Subsidies Elimination Agreements – let’s call them SEA SALT by analogy to the Strategic Arms Limitation Talks between the USA and USSR during the Cold War, could be a useful complement to the efforts of the World Trade Organization ([WTO](#)) to rationalize fisheries subsidies.

According to SDG14 Target 6, in 2015 the UN General Assembly agreed to “by 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies [...]” The WTO was mandated to draft and negotiate the agreement, “recognizing that appropriate and effective special and differential treatment for developing countries should be an integral part of the WTO fisheries negotiation.” Three WTO Directors General, two WTO ministerial conferences, countless drafts and one pandemic later, WTO members continue to fail to reach consensus on the details of the agreement they were mandated to reach by last year.



Among the remaining roadblocks there are disagreements (entertained especially by India, suspected to want to subsidize a new distant water fishing fleet now that its coastal fisheries have largely collapsed) on how and for how long special and differential treatment to developing countries should apply, and how should small-scale artisanal fishers be considered in that context. A major issue as well is the fact that the People's Republic of China is still considered a developing country by WTO standards. Yet it is the largest fishing nation with a considerable environmental footprint in virtually every part of the ocean. Many WTO members therefore believe it should not be considered a developing country in the context of the fisheries subsidies negotiations if the environmental integrity of the agreement is to be upheld. Recent reports on a [Chinese armada of fishing vessels](#) in waters surrounding the Galapagos archipelago in Ecuador, and [terrifying photographs](#) taken by night by Argentine coast-guard spotter planes 201 miles from Argentina in the South, of a fleet which is so large that it looks like a city by night have set off alarm bells around the world. Africa, both East and West, already facing numerous food security issues, also [faces severe challenges](#) due to the presence of distant water fleets, many of which come from Asia.

The status of subsidies to high seas and long distant water fisheries – especially fuel subsidies and rebates that make them artificially profitable – also remains unresolved despite an intense negotiating timetable facilitated by an able secretariat and chair. Against this backdrop, there is also the wider reform agenda for the WTO, with the trade war between China and the US which was particularly intense under the Trump Administration, and [according to analysts](#) not likely to ease up anytime soon under the Biden Administration.

Work at the WTO was interrupted for several months in 2020, and the 12<sup>th</sup> WTO Ministerial Conference was postponed.<sup>5</sup> It is expected that the recent appointment of [Ngozi Okonjo-Iweala](#) as WTO Director General will re-energize the talks. As an African woman, Dr. Okonjo-Iweala knows how small-scale artisanal fishers suffer from subsidized large industrial fleets *stealing* the fish from them. Livelihoods are at risk in Africa and elsewhere, and she said publicly that fisheries subsidies discipline is [high on her priority list](#).

We hope for and have continued to actively work toward a multilateral WTO SEA – Subsidies Elimination Agreement – this year. However, given that the WTO adopts its decision by consensus of its 164 members, in the best possible scenario the agreement reached will reflect the lowest common denominator of the membership. Under these circumstances, additional bilateral and/or regional fleet disarmament-types of agreements among fishing nations chasing the same fish – SEA SALT – would be a welcome addition to reinforce the sustainability of fisheries and the replenishment of marine life.

It should also be noted that [according to OECD figures](#), SDG14 (the ocean sustainable development goal, to combat marine pollution, ocean acidification, overfishing and the destruction of marine biodiversity) is among the least funded SDGs by both Official Development Assistance and philanthropic development funding. Harmful fisheries subsidies monopolize considerable resources that would be better spent elsewhere, as shown in reports by the [World Bank](#) and the [OECD](#). According to [research by the University of British Columbia](#), as much as USD 22 billion are wasted each year in harmful fisheries subsidies, with 80 to 90% going to large industrial fleets, depriving small-scale fishers of access to resources and markets. This is huge. Rechannelling these considerable resources into environmentally and socially beneficial subsidies – for example into scientific research, monitoring and control, and management reform such as numerical management of large fish (see above) – would fill the finance gap that stands in the way of achieving SDG14 targets.

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<sup>5</sup> The WTO General Council announced on 1st March 2021 that the ministerial conference was now scheduled to take place in the week of 29 November 2021 in Geneva.

**WTO members should:**

Conclude expeditiously the WTO fisheries negotiations and adopt a Subsidies Elimination Agreement by December 2021 at the very latest (WTO SEA)

**Fishing nations chasing the same vulnerable fish populations could:**

Subscribe to bilateral or/and regional Subsidies Eliminations Agreements to decrease/disarm in a coordinated manner the intensity of their fishing efforts (SEA SALT)

**Governments that dedicate funds to fisheries subsidies that contribute to overfishing and overcapacity should:**

Redeploy these funds into support to SDG14 Targets and into coastal protection and sustainable jobs.

**Isolate Plastic Litter from the Biosphere**

Should plastic litter policy mimic the policy successfully developed in the 1980s and early 1990s for radioactive wastes which has consisted in moving from a “dilute and disperse” paradigm to permanently isolate artificial radionuclides from the biosphere?

In its early days in the late 1970s, Greenpeace deliberately chose to oppose the dumping at sea and discharge of wastes from the nuclear and chemical industries, because these wastes building in the marine environment and the food chain were invisible to human eyes. Their presence in the environment was perceivable to humans only when it was too late, once effects on human health could be felt, as had happened in the Bay of Minamata, Japan, in the 1950s and 60s. We were aware that marine litter – especially plastics – was increasing as well, of course, but our thinking was that society would naturally come to address this problem as it was clearly evident. We therefore considered “out of sight – out of mind” attitudes as the greater threat, thus for us radioactive and chemical wastes were the priority. We did not think there would be a need to give visibility to litter, floating, drifting and sinking plastics. Obviously we were wrong in retrospect, but another lesson can be drawn.

The Greenpeace toxics and nuclear campaigns were back-end strategies to prevent the externalisation of environmental costs – wastes – of industries whose environmental impacts are not limited to waste generation. Security risks to labour and the environment are associated with the routine operations of both chemical and nuclear installations, not to mention in the case of nuclear power risks associated with nuclear weapons proliferation. Dispersing and diluting hazardous wastes into the environment – into air, rivers, coasts and the open ocean – was a convenient way to dispose of inconvenient wastes, as long as no-one knew it was happening. But things changed once Greenpeace shone a spotlight on purpose-built dumping vessels operated by chemical or nuclear companies, or their regulators, or at pipes discharging liquid noxious waste from shore. The nuclear industry’s response was that dumping at sea was only allowed for low- and medium-radioactive wastes but it turned out that this classification existed for the purpose of waste handling, not in the light of wastes’ radiotoxicity in the environment. If you added enough inert materials to high-level radioactive wastes they could end up being classified a medium or low.

A temporary moratorium on dumping low- and medium-level radioactive wastes was first adopted in 1983 by the Parties to the London “Dumping” Convention (again, one of our favourite historical examples), but soon thereafter Greenpeace uncovered ongoing plans to dispose of high-level radioactive wastes *under* the seabed, with suppository-shaped canisters and drilling platforms. This form of disposal was not dumping *at* sea, the OECD nuclear agency was arguing, as it was *under* and not *on*

the seabed. It was at that point, in 1985, that by resolution the Parties to the London Dumping Convention required for the first time the nuclear industry to prove that any dumping on or under the seabed would guarantee a permanent isolation of their wastes from the biosphere. Finally in 1993, the Convention was amended to ban permanently all dumping at sea of radioactive and liquid noxious (chemical industry) wastes (*on* and *under* the seabed), and their incineration at sea. The ocean dumping ban, and severe regulation of land-based discharges under the OSPAR, Helsinki, Barcelona, Noumea and other regional seas conventions, has not caused the collapse of the nuclear and chemical industries, but it is largely keeping them at arm's length from the ocean and from the natural environment.

Now that we know that plastic litter decays into micro-plastic particles which enter into the food chain, and find their way into human bodies and even human foetuses, shouldn't we say that plastic particles are the 21<sup>st</sup> century equivalent of radioactive wastes, and there are objective reasons to believe that they should be treated as such? Moreover, plastics are derived from fossil fuels and have a massive carbon footprint. It took a campaign of some twenty years to reach a universal consensus which is legally-binding on all 87 Parties to the London Convention and all 168 Parties to the UN Convention on the Law of the Sea (UNCLOS). But there is no reason that it would need to take so long in the case of plastic litter, because – contrary to nuclear and chemical wastes – no-one, even those who produce them, argues that it is a good idea to dump them into the environment.

Since plastic litter has risen on the political agenda, there have been [multiple policy debates](#): Do voluntary partnerships work better than regulation? Is the plastic industry getting away with the focus on consumer guilt? Do voluntary commitments and partnerships with industry work? What is the role of the petro-chemical industry? Is leaving plastic litter unabated a hidden subsidy to the fossil fuels industry? Who should be held liable? Is a global convention as discussed in the framework of the UN Environment Assembly a good idea? Should efforts be placed regionally and at the national level instead? And so on.

Some may object that the volumes involved in plastic wastes are nowhere comparable to radioactive waste volumes in the 1970s and 80s. But this is exactly the point: if governments had acted early in anticipation of future plastic wastes arising, as happened with radioactive wastes, they would not be faced now with such a chronic plastic waste management crisis. Based on our experience, we would say that a global common playing field is a good idea because floating plastics know no frontiers.

**NGOs should:**

Complement their ongoing campaign on single use plastics avoidance, with a focus on industrial responsibility and liability at the national, regional and international level, with strong focus on elimination of wastes at the source, demanding that plastic waste be isolated permanently from the biosphere.

**UN Environment Assembly could:**

Develop legally binding instruments (stand-alone and/or through the Basel Convention on the Transboundary Movements of Hazardous Wastes) to establish producers' liability and obligations to adopt measures that would permanently isolate plastic wastes from the biosphere, thus increasing pressure on manufacturers to minimize or abandon plastic in their production.

**Donor Agencies should:**

Increase support to policies and infrastructures for the elimination of marine pollution from land-based activities, including the discharge and loss of plastic wastes.

## Planet Ocean

Ocean advocates frequently say that the ocean is climbing up the political agenda in the same way that climate change has done over the last decade. While it is true that awareness of the large-scale changes taking place in the ocean is growing, especially the [impacts of CO2 emissions and climate change](#), the ocean has always been an important engine for raising public environmental awareness and mobilization.

From Jacques-Yves Cousteau's pioneering underwater films in the 1960s and 70s, to the first ever concerted international campaign of the WWF that was called "The Sea Must Live" in 1977-1978, followed by the Greenpeace campaigns rooted at sea, the mystery and beauty of the ocean has always served a wider environmental agenda.

For many if not most people, the ocean inspires a sense of beauty, wonder and tranquillity, which perhaps explains their heightened concerns when ocean environmental emergencies arise. This is true even for people who live far away from the scene of an accident or event impacting the ocean, or even from the ocean itself. Think for example of the Minamata fish poisoning from mercury in the 1950s; the Torrey Canyon super tanker accidental oil spill in 1967 (the first of its kind); the Stella Maris midnight ocean dumping operation which triggered the adoption of the first regional and global legal instruments for the prevention of marine pollution in 1972 – the Oslo and the London Conventions on ocean dumping; the campaigns against the dumping of radioactive wastes at sea, offshore oil and gas drilling and for the protection of the great whales in the 1980s; the legal consequences in the 1990s of the Exxon Valdez disaster (1989), or the campaigns to ban driftnet fishing and to protect Bluefin tuna in the 2000s, and the Deepwater Horizon blowout in 2010.

Presently also, the intimate relation between the planetary climate system and the ocean now mobilizes hundreds of scientists and activists. As John Kerry, now John Biden's Presidential Climate Envoy said [at the Ocean-Climate Ambition Summit](#) held in January 2021, "when we meet about the climate, we're meeting about the ocean, and when we meet about the ocean, we're meeting about the climate." When we started addressing this relationship, first in the secretariat of the [Global Ocean Commission](#) (2013-2016) and then with a group of countries and partners when we launched the [Because the Ocean initiative](#) at the 21<sup>st</sup> Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC COP21) in Paris in 2015, an initiative we continue to coordinate until COP26 in Glasgow in November 2021, little attention was paid to the ocean-climate nexus. Only a few experts working on "blue carbon" (the capacity of marine and coastal ecosystems to absorb CO<sub>2</sub>) and ocean acidification (changes in the chemical composition of the ocean due to increased CO<sub>2</sub> concentrations) were begging for attention at the UNFCCC at the time. But now the ocean has found its place in the climate negotiations to the extent that the Chilean Presidency of COP25 held in Madrid in December 2019 dubbed it "[the Blue COP](#)," and there will be a continuation this year in Glasgow and beyond. A few years ago, we would have dedicated a separate section of this article to ocean-climate action. But now there is not so much need, because the ocean has become a mainstream topic in climate discussions: harvesting the blue energy from the ocean (offshore wind energy of course, but also waves, tidal currents and tidal range, thermal energy conversion and salinity gradients); protecting and restoring "blue carbon" ecosystems and the rest of the ocean to make it more resilient to climate impacts; and the greening of the shipping sector, for example with hydrogen or the wind engine. Ocean protection and responsible utilization, is a part of climate protection; it is not a substitute for climate change mitigation.

The power of the ocean to inspire, unite and mobilize is such that it can often serve as a vector to promote environmental actions which are not specific to ocean conservation, or only partly so. For example the current campaigns and political initiatives to end plastic proliferation and promote the circular economy are using the ocean to mobilize the public, but of course the real objectives are wider

than simply cleaning the ocean (just like when we opposed the dumping and discharge of toxic and radioactive wastes in the 1970s and 80s).

Looking back at some of the landmark environmental achievements of the last decades, which required visionaries working at the highest levels of government to put aside political differences to achieve a common good, it's fair to ask whether in today's polarized world the ideas described above could ever be achieved. But one thing is certain, if we can't provide visionary solutions to some of the most intractable problems facing the ocean, we are unlikely to sufficiently inspire a new generation of activists to demand change. It is in this spirit that we have offered our ideas, and would look forward to working with like-minded individuals and organizations to explore whether and how they could be shaped into campaigns.