

2017 Parliamentary Hearing at the United Nations

A World of Blue: Preserving the oceans, safeguarding the planet, ensuring human well-being in the context of the 2030 Agenda

Jointly organized by the IPU and the Office of the President of the General Assembly
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Summary Report

Opening

The 2017 Parliamentary Hearing served as an opportunity for parliamentarians to discuss issues related to ocean health in preparation for the high-level *United Nations Conference to Support the Implementation of Sustainable Development Goal 14* which will be convened at United Nations Headquarters in New York from 5 to 9 June 2017. Co-hosted by the governments of Fiji and Sweden, the conference aims to produce concrete commitments and solutions to reverse the decline in the health of our ocean.¹

The two-day session was opened by H.E. Peter Thomson, President of the United Nations General Assembly, Hon. Saber Chowdhury, President of the Inter-Parliamentary Union (IPU) and Mr. Wu Hongbo, Under-Secretary-General of the United Nations Department for Economic and Social Affairs, who spoke on behalf of Mr. António Guterres, Secretary-General of the United Nations.

Mr. Thomson recognized the critical role of parliamentarians as standard-bearers, policy shapers and legislators. He advised parliamentarians to use the hearing as a step toward preparing their governments for the UN Ocean Conference in June 2017 and asked them specifically to come to the Ocean Conference with regional, national and local-level voluntary commitments to reinforce the global efforts. He recommended that parliamentarians use SDG 14 and its targets and indicators as a roadmap for improving the Ocean's health.

Mr. Chowdhury commended the mutually-reinforcing partnership between the IPU and the United Nations. He noted that Mr. António Guterres, UN Secretary-General, is a former parliamentarian. As a citizen of Bangladesh, a low-lying country, Mr. Chowdhury is keenly

¹ *A note on terminology:* The scientific community has adopted the notion of one global ocean as opposed to four distinct oceans. The concept of a global ocean system recognizes that the Pacific, Atlantic, Indian and Arctic are not oceans, but ocean basins. This summary report refers to ocean in the singular by which is meant the global ocean system.

aware of the risks presented by rising sea levels. By 2050, as many as 30 million people in his country may be displaced from coastal areas. As in other countries, most of the individuals vulnerable to displacement are among the poorest of the poor.

Mr. Chowdhury surveyed the range of issues related to and having an impact on ocean health: the resilience of local economies, cultural heritage, climate change, marine pollution, the food chain, and extraction of natural resources from the seabed. He recommended parliamentarians use *Parliaments and the Sustainable Development Goals: A Self-Assessment Toolkit*, a publication produced by IPU and UNDP that is available online.² It is designed to help parliaments mainstream the SDGs throughout their work and will help parliamentarians fulfill their legislative and oversight functions.

Mr. Chowdhury framed the hearing as an important step in the journey towards achieving the SDGs. He set the goals of the conference as raising awareness of ocean health and encouraging parliamentarians to take action to reverse the ocean's decline.

Under-Secretary-General Wu Hongbo read Secretary-General Guterres' message which emphasized the centrality of the ocean, seas and coastal areas to the earth's ecosystem and to the 2030 Agenda for Sustainable Development, noting that the ocean has never been more vulnerable. While the challenges to restoring ocean health are daunting, the international community has the tools to convert challenges to opportunities.

Secretary General Guterres' message urged parliamentarians to focus on implementation. He described the upcoming UN Ocean Conference as a unique opportunity to find concrete solutions to environmental threats.

I. The Ocean and its Carrying Capacity

The single, interconnected world ocean forms about 90% of the earth's biome, the space with living creatures, and is crucial for human well-being and sustainable development. Human beings depend heavily on the ocean for oxygen, nutrition and, increasingly, for drinking water. The world's population gets 17% of its animal protein from the sea. For people living in 30 countries, mainly in Africa and Asia, the ocean provides 33% of their animal protein. Twenty-two of these countries are low-income and food deficient. One hundred and fifty countries use desalination plants to meet their population's needs for water. Worldwide, desalination plants produce over 22.9 billion US gallons of water a day. Every second breath we take comes from oxygen produced by the ocean.

The ocean also plays a massive role for local livelihoods and in the global economy. Indeed,

² <http://www.ipu.org/pdf/publications/sdg-toolkit-e.pdf>

75% of world trade by volume and 59% of world trade by value travels by sea. Communications are ocean-dependent as 95% of intercontinental internet traffic passes through submarine cables. In 2015, tourism was the basis for 9.5% of the world economy, half of which involved international travel to coastal areas. Finally, the seabed is an important source of crude oil and tin, magnesium, sulphur, gold, and gravel. Seabed mining is likely to increase as land-based deposits are exhausted.

Despite its capacity for self-regeneration, the ocean is imperiled by the cumulative effects of climate change, unsustainable extraction of marine living resources, including overfishing, excessive by-catch, unsustainable coastal development and marine pollution, including in the form of hazardous substances, excess nutrients and underwater noise pollution.

Greenhouse gas emissions cause ocean warming, acidification and oxygen loss. These widespread effects contribute to melting ice sheets, rising sea levels, and an increase in intensity and frequency of extreme weather events. Warming ocean waters alter the composition of marine ecosystems. As species follow their preferred temperatures into new areas, new interactions produce species loss and a decline in biodiversity. This is especially true of low latitudes where marine ecosystems are vital for the marine food chain.

Carbon emissions decrease seawater's PH, a process known as ocean acidification. A more acidic environment threatens the viability of calcifying species, including shellfish, corals and calcareous plankton and in turn disrupts the food chain. Many of the changes that have taken place are irreversible: for example, there is already a high risk of losing about 90% of the coral reefs to bleaching over the next decades .even if the global surface temperature does not increase more than two degrees Celsius above pre-industrial levels,

Excessive marine pollution from human activities at sea and land, such as agriculture, sewage and ship traffic, among others, cause dead zones, low-oxygen areas in which most marine life suffocate. In dead zones, entire ecosystems are destroyed. While hypoxia is a naturally occurring phenomenon, scientists believe that human impacts have dramatically increased the number of ocean dead zones, which as of 2017 number more than 500.

Industrial fisheries have grown rapidly since 1945 and overall are poorly managed. Overfishing has decimated fish stocks. With better oversight, fisheries could improve productivity by 20%. Large fisheries have negative impacts on small, local, "artisanal" fishers and jeopardize their livelihood, as well as the cultural heritage and economic structures they represent.

The limits of the ocean's carrying capacity are being, or in some cases, have been reached. The assumption that the ocean can absorb indefinitely the by-products of human activity in any amount was always wrong. The interaction between the various pressures on the ocean produces a cumulative effect that is more devastating than the sum of its parts. Integrated ocean management is essential to addressing the threats to marine ecosystems. Immediate action is necessary to reverse the ocean's decline.

II. Toward A Sustainable Blue Economy

The ocean's role in human life is multi-various. The ocean and its coasts provide oxygen, climate regulation, food and protein, medicine, human habitat, employment, cultural heritage, inspiration, recreation and a place to restore wellness. Yet too often, the ocean has served as a site of exploitation and a dumping ground. The result is a decline in ocean health so extreme that, in many respects, damage reversal may no longer be possible, leaving damage mitigation and resilience building as the only course of action.

As many participants noted, the first step in building a sustainable blue economy is to identify and address the economic drivers of pollution and over consumption, especially in the developed world. Parliamentarians should support government policies that incentivize sustainable behavior in the private and public sectors at national, district and community levels.

While the decline of the ocean's health is unprecedented, tools and techniques already exist that can help reverse the decline. Genetic modification may mitigate damage done to ecosystems. Post-plastic, organic materials that biodegrade may replace plastic. Autonomous vessels, the marine equivalent of the self-driven car, may facilitate wastewater treatment and the removal of plastics and pollution.

Innovative marine technologies can help meet the needs of a global population expected to reach 9 billion by 2030. As the global population expands, the need for healthy protein with a lower carbon footprint can be met by sustainable aquaculture, with the added benefit of providing employment to some of the poorest communities in coastal areas around the world.

Risks were acknowledged in the adoption of new technologies. While many of these technologies will require decades to fully develop, they must be carefully evaluated for their potential impacts on human activities, economies and marine ecosystems. There is also the danger that the high seas fishing may be monopolized by big business. Parliamentarians from developing countries expressed interest in funding mechanisms to ensure innovation is not dominated by high-income countries. The discussion made clear that a new set of investment framework and financial instruments are needed to nurture the development of an inclusive, sustainable ocean economy.

Myriad Forms of Pollution

Parliamentarians elaborated on the numerous forms of pollution, including:

- air pollution caused by emissions
- water pollution cause by fertilizer run-off (80% of all pollution in the ocean), wastewater (sewage), oil spills and marine debris, light and noise pollution, and thermal pollution due to climate change. The "polluter pay" principle is one important way to discourage

pollution while creating a revenue stream to fund work on SDG 14.

While all of these forms of pollution were mentioned during the hearing, the following topics received particular attention.

Plastic Pollution

Every square mile of the ocean's surface is polluted with plastic. Every depth of the ocean from the surface to the ocean floor is polluted by millions of pounds of plastic. It's estimated that 15 to 50 trillion pieces of plastic are in the ocean. Abandoned, lost or otherwise discarded fishing gear and larger plastics kill marine life through entanglement, strangulation, suffocation, starvation due to reduced digestive capacity and poisoning. If pollution rates continue on their current trajectory, there could be, by weight, more plastic than fish in the ocean by 2050.

A parliamentarian from Thailand remarked that a switch to a "sufficiency economy" in which moderation, rather than consumption, was the guiding value, may address the core cause of plastic pollution. The Buddhist approach of the Middle Path emphasizes considering the greater good when making our daily choices. A parliamentarian from Iceland suggested that a less resource-intensive pattern of consumption and production was necessary to reverse the ocean's decline.

There was general agreement that more plastics would be recycled if governments built better collection infrastructure and raised public awareness on the issue. While recycling and collection infrastructure is costly, economies of scale can be reached if large segments of the population recycle. Banning single-use plastic bags was discussed with particular reference to the example set by countries such as Rwanda, France, Morocco and Monaco.

Impact of Microplasm on Food Safety

As plastic disintegrates in ocean waters, it becomes microplasm, plastic particles so small they can only be seen by a microscope. Plankton, the bottom of the marine food chain, swallows the microplasm. As fish eat plankton, the microplasm eventually ends up on our plates. The potential health effects are devastating. More than one billion people rely on seafood as their primary source of protein. Microplasm is so pervasive in the ocean, it can even be found in table salt. The FAO has convened a group of experts to evaluate the effects of microplasm on food safety.

Microbeads

Microbeads are tiny plastic particles used in toothpaste, cosmetics and beauty products which waste water treatment facilities cannot break down. They arrive intact in the ocean where they absorb other pollutants such as motor oil, flame retardants, and pesticides. Marine life then consumes these tiny and highly toxic particles. Many countries, including the United States and Canada, have banned the use of microbeads. Many parliamentarians advocated an international ban.

Ghost Gear

Several participants discussed the damage done by ghost gear, marine equipment discarded by fishers. It is a major cause of depleted fishing stocks and accounts for 10% of all marine litter.

Waste Water

Several parliamentarians expressed the desire to improve wastewater management in developing countries as well as to improve waste disposal facilities on vessels. The 2012 Manila Declaration on Furthering the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities cited wastewater management as one of the three main priority areas for the Global Programme of Action. A parliamentarian from Italy observed that pollution from ships was spoiling coastal waters in and near port towns. He proposed that severe fines be imposed for illegal waste and litter to ensure compliance with the law. Up to 80% of urban sewage discharged into the Mediterranean is untreated. It was suggested that an international database be established to record data on infractions made by vessels and industrial fisheries around the world to facilitate the enforcement of corporate responsibility and international law.

Recommendations:

- Encourage manufacturers to design multi-use products with a sustainable end of life” scenario. This will ensure that biodegradable products are the norm in future.
- Educate consumers to make responsible choices with regard to plastics.
- Consider banning single-use plastics, particularly bags, as well as Styrofoam
- Improve collection infrastructure to make recycling easier.
- Incentivize manufacturers to explore the use of “post-plastics” that are biodegradable.
- Incentivize fishers to bring their gear back to land.
- In coastal communities, encourage start-ups to creatively up cycle or reuse marine gear by turning it into new products.
- Invest in mobile waste collection on boats to remove marine litter.
- Consider subsidies to make environmentally-friendly products more affordable.
- Impose an international ban on microbeads.
- Consistent with the “polluter pays” principle, impose severe fines on companies that do not observe sustainable practices and local/international laws regarding wastewater management and litter. Use the resulting revenue to invest in sustainable marine ecosystem management and resilience-building.
- Pursue innovative financing to improve management of wastewater treatment plants.
- Incentivize local solutions and start-ups to provide services to improve wastewater treatment.
- Declare coral reefs protected marine areas to slow coral bleaching and mitigate the effects of thermal pollution.

Fishing

Small-scale fisheries provide the largest employment of all ocean-based industries. Fifty-two million full and part-time fishers and fish workers are employed in small-scale fisheries with ninety-six percent of the workers living in developing countries.

The scourge of overfishing by industrial fisheries has put the employment of small-scale fishers and the production of fish protein at high risk. Unsustainable fishing practices have depleted fish stocks, dramatically threatening the viability of local artisanal fishers and decreasing biodiversity. Several parliamentarians lamented the overfishing by industrial fleets, weak regulation and lack of enforcement of existing laws. An Irish parliamentarian described the outrage felt by Irish artisanal fishers who abide by strict European Union regulations only to observe industrial fishing fleets trawling for unsustainable yields.

This problem is exacerbated in low income countries whose waters are overfished by industrial fleets based in larger and richer nations. A minister from Fiji asked what could be done to protect small island nations like her own which observed regulations regarding overfishing, but suffered the consequences of large corporate fishers who did not.

Industrial fishing practices are alarmingly inefficient. A parliamentarian from Norway remarked that commercial fisheries discard about 80% of the fish they catch. The discarding of “by-catch,” due to the incidental capture of non-target fish, has caused significant decline in biodiversity. By-catch often includes endangered species. A participant noted that vast subsidies to industrial fisheries effectively encourage overfishing. Eliminating these harmful subsidies would enable these monies to be redirected toward conservation. Several parliamentarians discussed the importance of enabling depleted stocks to recover. In this context, marine protected areas were identified as a promising method for stock recovery.

The role of consumers and the private sector in promoting sustainable fishing was discussed. Tuna, a high-demand fish in decreasing supply, was cited as an example of how innovative practices might encourage sustainability. The use of data trackers can ensure end-to-end traceability of tuna, creating transparency between fisheries and consumers. Tuna labeled “fair trade” would cost more to consumers but provide a guarantee it is sustainably sourced. One parliamentarian cautioned that most consumers would not be able to afford the surcharge associated with “fair trade” products.

It was recommended that artisanal fishers, many of whom belong to communities that have fished for centuries and even millennia, should be included in decision-making. Their local expertise and fishing knowledge had much to offer to the problem of depleted stocks and waning biodiversity. In the same vein, parliamentarians expressed a commitment to preserve the cultural heritage of coastal communities. Sustainable fishing is vital to these communities and cultures.

The potential of aquaculture to produce the vast amounts of fish protein needed by a growing global population was explored, together with a concern for its impact on coastal habitats and mangroves. While aquaculture will be a major production method for meeting the planet's nutritional needs, it needs to be managed carefully to reduce the impact on biodiversity, artisanal fishers and coastal communities.

Recommendations:

- Ensure sustainable fishing. The Convention on the Law of the Sea protects small-scale fisheries and outlaws unsustainable fishing. Better regulation, monitoring and enforcement of existing agreements, such as the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, are needed. Parliamentarians should ensure compliance.
- Encourage governments to pass the legally binding legal instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.
- Link trade and sustainability so that trade deals must contribute to SDG 14 in order to be approved by parliament.
- Impose severe fines on vessels that do not observe local and/or international laws with regard to overfishing and pollution.
- Scale up innovative methods such as a fair trade labelling for developing markets for sustainably farmed fish.
- Use data trackers to ensure end-to-end traceability, monitoring, regulation and consumer confidence.
- Integrate the voices, wisdom and expertise of local fishers and their coastal communities in decision-making. Ancient fishing communities are a part of our collective cultural heritage and their contribution to the solutions to the ocean's decline is essential.
- Engage as many stakeholders as possible in the process, including ocean users, industry, civil society organizations, citizen scientists, children and students.
- Enforce fishing quotas and maximum sustainable yields, as well as moratoriums on fishing to allow fisheries enough time to regenerate themselves.
- Manage aquaculture growth so that it does not displace artisanal fishers, depress biodiversity or threaten the coastal environment through clearing of mangroves and coastal habitats.
- Create marine protected areas to enable depleted fishing stocks to recover
- Discourage harmful subsidies and redirect monies toward ocean conservation.

Extractive Industries, Marine Genetic Resources, and Cables

Seabed Mining

The mineral resources within the seabed of more than 50% of the ocean known as the “High Seas,” are capable of providing humanity with a source of minerals for many hundreds, if not thousands, of years. Under the UN Convention on the Law of the Sea (UNCLOS), these mineral resources are legally recognized as the common heritage of humankind. By international law, their economic benefits must be shared equally between all nations.

The International Seabed Authority (ISA) was established under UNCLOS to regulate deep seabed mining. ISA controls access to mineral resources by awarding mining contracts. Applications for seabed mining contracts may be sponsored by any of the 168 nations that are party to UNCLOS. As such, nations at any stage of development, including land-locked countries, have equal rights to apply for contracts to mine the seabed for mineral resources. The ISA awards contracts based on the consensus of its members.

For most of ISA's 30-year history, the technological and financial challenges involved in extracting minerals from the seabed have acted as barriers to significant rates of ocean mining. As those barriers are more easily surmounted, there is likely to be a dramatic increase in seabed mining. Currently, the most active mining area is the Clarion-Clipperton Zone in the high seas off the coast of Mexico and California. There are sixteen active operations in this area, covering 3% of the Pacific Ocean. It would take several thousand years to exhaust the supply of minerals accessible through even one mine in one of the sixteen areas under exploration.

Parliamentarians expressed concern about the environmental threats of seabed mining. As the rate of seabed mining increases, parliamentarians have a responsibility to monitor the impact and make certain that their government contracts with ISA adhere to the mining regulations under UNCLOS.

Marine Genetic Resources

Marine scientific research in international waters is open to all nations. However, marine genetic resources have an unclear legal character. They are not defined in UNCLOS. There are States that argue that marine genetic resources should be included as part of the common heritage of humankind, and others who argue the opposite position, making them fall under the Freedom of the High Seas. Current negotiations for a legally binding legal instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction are currently ongoing. A common view on several difficult topics must be achieved by Member States. In this context, parliamentarians can support an advancement of the negotiations and later ensure the implementation of the legally binding instrument.

Submarine Telecommunication Cables

While many assume that satellites transmit most communications, 95% of international communication is transmitted through submarine cables. Submarine cables are therefore a matter of national and international security. Submarine cables need maintenance and protection from the impacts of natural disasters, movement of tectonic plates, technical failure,

accidental interference through deep sea fishing and, intentional damage.

While 99% of the cables are owned and operated by the private sector rather than governments, UNCLOS imposes obligations on most nations to safeguard and protect submarine cables both within their Exclusive Economic Zone and outside of their territorial seas. However, few countries have modern legislation to protect cables. Parliamentarians should advocate for the maintenance of submarine cables to safeguard international communications and bandwidth. They can also press their governments to ensure that industrial fishing is kept away from cables.

A member of the International Cable Committee described the environmental impact of submarine cables as benign due to the use of chemically inert materials. The cables are laid along the seabed where according to the industry, they have minimal impact on marine life. Because the areas where the cables are placed are protected from man-made risk, the cable corridors become, in effect, marine protected areas, encouraging biodiversity.

Strong broadband connections are the basis of the digital economy, so it is a matter of social justice that all countries have a robust broadband connection. Coastal countries are at an advantage in this regard and can consider sharing their bandwidth with their inland neighbors.

Nuclearization of the Ocean

Radioactive material in the ocean poses a unique threat to marine and human health which scientists have yet to quantify. A parliamentarian expressed concern that radioactivity has been measured in the ocean and that nuclear tests occurred in French Polynesia. Another noted that radioactive plume from the damaged nuclear plant in Fukushima (Japan) has been detected in the Pacific Ocean.

Though nuclear testing in the ocean is now forbidden, nuclear submarines are still in the ocean. A parliamentarian asked whether the denuclearization of the ocean would be an appropriate topic for the UN High Level Conference on nuclear disarmament. The Secretary General of the International Seabed Authority observed that UNCLOS has established the seabed area exclusively for peaceful purposes. It prohibits militarization of the deep sea.

Recommendations:

- Ensure that radioactivity tests of ocean waters take place as part of the on-going evaluation of ocean health.
- Require that an environmental impact assessment is performed prior to every seabed mining licensing agreement.
- Demand that marine genetic resources are effectively protected under any new agreement.
- Adopt national legislation to protect submarine cables and the surrounding marine

environments.

Tourism

In 2016, 500 million people traveled internationally to vacation in coastal areas. While the economic contributions of tourism are significant---in fact, for certain small island nations, tourism accounts for as much as 50% of GDP--- the environmental impacts of coastal and ocean tourism have been devastating. Mangroves, coral reefs, nesting sites for marine turtles and seagrass meadows have been cleared in many coastal areas to make way for hotels and beaches. Tourism's negative impact on ocean and coastal health is due largely to the over concentration of tourists in specific destinations. This disturbs the ecosystem through overdevelopment and pollution including wastewater management. Ocean cruises place additional stress on the ecosystem in the form of sewage, wastewater and pollution.

A parliamentarian from Belgium pointed out that people who vacation on coasts do so because they have a love for the sea. These ocean-loving tourists represent a potential international lobby of ocean advocates. Directing an ocean health public awareness campaign toward ocean tourists might mobilize a half-billion tourists into environmental action. A related idea was the promulgation of "voluntourism" in which tourists spend a part of their vacation working on coastal clean-up efforts, or learning about the local fishing community. The market opportunities for consumers who wish to vacation near the ocean without causing harm were discussed. One example is encouraging tourists to factor in the environmental impact of different cruise lines' waste management systems when selecting their next cruise. With greater consumer awareness come incentives for hospitality and tour operators to clean up their environmental act.

A senator from Kenya proposed applying the model of ecotourism that originated with the Masai and the conservation of the Savannah to coastal communities. In this model of ecotourism, environmental sustainability, cultural heritage and the participation of the indigenous community are core features. A human-centered approach to ecotourism involving the active participation of coastal communities was recommended.

Recommendations

- Encourage the private sector to pursue ecotourism in ocean and coastal environments.
- Engage hotel chains, cruise lines and other actors in the tourism industry to apply sustainable practices and create incentives throughout the industry to lessen its environmental impacts.
- Integrate cultural heritage and the participation of local communities in ecotourism.
- Educate the general public, and tourists, in particular, on the environmental impacts of their seaside holidays.

Climate Change

Global warming worsens the harm done to the ocean. Ocean acidification, for example, has far more serious effects in a warming environment. The precondition of reversing ocean decline is therefore to urgently and drastically cut emissions drastically.

In 2015, the world's first comprehensive climate agreement, the Paris Agreement, was forged at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC). It will come into force in 2020. Signed by 194 countries and ratified by 134, the Paris Agreement is a commitment to reducing global emissions, especially in developed nations, and to limiting the increase in global average surface temperature to well below 2 degrees Celsius above pre-industrial levels. The agreement also commits signatories to increase their ability to adapt to the adverse impacts of climate change, foster climate resilience and produce finance flows consistent with a pathway toward low greenhouse gas emissions and climate-resilient development. Developed countries have committed to mobilizing \$100 billion per year in public and private finance by 2020 to support low and medium-income nations in adhering to the Paris Agreement.

Critics of the Paris Agreement note that the agreement is non-binding and that limiting temperature rise to less than 2 degrees Celsius above pre-industrial levels will not protect the earth from the dangers of melting ice sheets and rising sea levels.

Rising sea levels are a particular threat to the 183 countries that are either coastal or small-island States. The International Organization for Migration (IOM) projects 200 million people will be displaced by 2050 due to overall environmental changes.

In addition to cutting emissions, governments can adopt blue carbon policies to enhance resilience to climate change. These include establishing marine protected areas that span latitudes or have corridors between them to allow for species migration, restoring forests mangrove, kelp and seagrass meadows. While these interventions can slow down the ocean's decline, they cannot reverse it. Only drastic cuts in emissions in concert with other conservation efforts can arrest ocean decline.

Participants noted that climate change needs to be addressed at global, national and local levels. A speaker from Fiji described the myriad of efforts her government has taken on a national level to protect coasts and coastal inhabitants, as well as local government efforts to involve their communities in learning how to mitigate the effects of climate change. Despite a few blind spots and points of contention about the science of climate change and corresponding solutions, there is an overwhelming body of knowledge already available for policy-makers to take decisive action.

Alternatives to energy based on fossil fuels include innovative technologies that harness energy from wind and deep ocean currents. These have the potential to replace less environmentally-

friendly energy sources; their impact on societies, economies and ecosystems must be carefully assessed.

Recommendations

- Ensure that national CO₂ reduction commitments are sufficiently ambitious to contribute to the global target limiting global temperature rise to under 2 Celsius degrees above pre-industrial levels.
- Expand and manage coherent networks of marine protected areas to safeguard marine biodiversity and promote resilience.
- Protect coasts through conservation.
- Promote and apply Blue Economy approaches emphasizing the economic benefits of low-carbon solutions to developing countries and SIDS in particular.
- Plan and implement policies at the global, national and local levels.
- Develop and support measures to address the issues associated with coastal and island population displacement, including improvement of international law in terms of definitions, rights and procedures for climate-induced refugees and migrants, including the development and implementation of financing measures.
- Earmark funds in global public finance mechanisms to support adaptation and mitigation in coastal areas and SIDS.
- Track financial flows to support climate change efforts related to the ocean and coasts.
- Encourage private sector investments in “gray” coastal infrastructure (culverts, break walls and roads) for coastal habitat protection and restoration.
- Educate young people to become ocean-literate citizens and scientists.
- Educate the public to encourage environmentally-conscious consumption.

International Law, Regulation and Disputes

The efficacy of current international law to protect the ocean was discussed. Some participants believed the current legal regime governing the ocean was weak and that a new, legally binding under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction was necessary. Other participants took the view that existing international law was sufficient and that the problem was due to a combination of poor enforcement and limited resources. According to them, technological advances, such as big data, enabled much more comprehensive monitoring of the high seas and should translate into better enforcement and accountability.

Several parliamentarians from various regions noted that illegal fishing occurred regularly and seemingly without consequences. Several others voiced concerns about international disputes

over access to coastland, their Exclusive Economic Zone and its resources, including specific current conflicts. Others noted that the adjudication process under the International Tribunal of the Law of the Sea was too slow. Other parliamentarians expressed concerns about disputes with neighbors over coastal access and borders. As one parliamentarian said, “if you do not know what is your land or sea, you cannot conserve it.”

For many nations, piracy is a threat within Exclusive Economic Zones and in the High Seas. Africa, which counts 38 coastal states, is particularly affected by piracy. Ninety percent of imports and exports are transported by water and a significant number of the most strategic commercial shipping lanes lie within African maritime jurisdiction. In addition to piracy, African waters contend with illicit fishing and illicit trafficking of a wide range of goods, including arms, drugs and people. Recognizing that no single nation alone can guarantee the security of its waters, 31 African nations signed the Lome Charter in 2016 pledging a cooperative approach to bringing law, order and sustainability to the waters off the continent. This charter awaits ratification.

Recommendations:

- Strengthen High Seas governance, including through better enforcement of international law and a more effective international dispute resolution mechanism.
- Establish extensive marine sanctuaries in the High Seas to enable depleted fishing stocks to recover and marine life to flourish.
- Take resolute action against illegal fishing as well as criminal activities such as piracy.

II. From Words to Actions: The Challenge of Implementation

The Role of International Cooperation in Saving the Ocean

The ocean and its ecosystems cover our planet, irrespective of political borders. As a senator from Mexico said, “fish do not have passports.” By its very nature, protecting the ocean is a transboundary endeavor and requires international cooperation. Parliamentarians underscored the importance of accountability and transparency on all ocean-related action, which should be based on the findings of the First World Ocean Assessment report and other properly vetted information.

Ocean Data

Data sharing is one form of international cooperation. Effective ocean policies begin with accurate information. To ensure that every country has access to first-rate data on their marine environments, the First World Ocean Assessment (FWOA) was completed. It supports governments by providing a framework for regional and national assessments and management decisions. This resource supports the implementation of the 2030 Agenda, especially SDG 14. It will help assess the implementation of SDG 14. Parliamentarians can improve their governments’ policy-making by incorporating FWOA information in their national/regional ocean

governance policies and assessments.

Funding for SDG 14

Several parliamentarians expressed concern that their governments, though committed to SDG 14, simply lack financial resources. There is a critical need for high-income countries to financially support the efforts of medium and low-income countries and to provide technical capacity-building. Small Island Developing States are experiencing the brunt of ocean pollution and overfishing, which are disproportionately the responsibility of large multinationals based in developed countries. Ensuring appropriate taxation of these companies and fines for breaches of international law will encourage sustainable practices and provide a revenue stream to address the lack of funding.

International Law

Parliamentarians noted the lack of enforcement of existing international laws designed to protect the ocean. A legally binding instrument is needed to ensure the conservation and sustainable use of marine biological diversity of the “high seas”, the more than 50% of the ocean that lies beyond national jurisdiction. Such a legal instrument is currently being negotiated at the United Nations. Participants lamented the negotiations slow pace. Parliamentarians can apply pressure to their governments on this issue and direct them to take action on ocean protection. Such advocacy may help accelerate and focus the negotiations.

The Need for Integrated Solutions at the National Level

National governance with regard to the ocean involves not just one ministry, but every ministry. An Ocean Ministry, a Council or other authoritative maritime agency needs to be established in each country to coordinate a government-wide strategy for achieving SDG 14.

Several parliamentarians advocated the use of a process known as Marine Spatial Planning (MSP), an adaptation of land-use planning for marine waters. The process recognizes the geographic features, natural resources and habitats of the marine area under national jurisdiction. It involves multiple ocean users, including local citizens, representatives from energy, fishing, shipping, government, conservation organizations and recreation providers surveying the current uses of the waters. Finally, it uses this information to make informed and coordinated decisions about how to use and manage marine resources sustainably. The targets and indicators of SDG 14 should serve as reference points and organizing principles for this process.

A more participatory, bottom-up approach in marine policy-making was discussed. Participants noted that policy should not be informed exclusively by scientific knowledge but also by local traditional knowledge, cultural practices, and the knowledge of fishing communities.

The need to be sensitive to marine environments was illustrated by the example of street lighting in a seaside town. If street lights are placed without concern for local marine habitats, the brightest light that newly-hatched turtles see is not moonlight, but street lights. As a result,

the turtles crawl in the direction of traffic. This example is one of countless ways ocean-illiterate land-use planning can damage marine ecosystems.

It was suggested that governments adopt a policy that all trade deals involving maritime transport be evaluated against SDG 14. Trade deals that directly or indirectly threaten ocean health and the achievement of SDG 14 should be denied. Moreover, parliamentarians expressed concern that governments had fewer resources for the SDGs than might otherwise be the case due to corporate tax evasion. The role of parliamentarians in insisting on transparency with regard to corporate taxation and ensuring fair taxation was underscored.

The participation of many land-locked nations at the hearing was testament to the notion that the ocean is “from mountain top to ocean floor.” Parliamentarians from Bhutan, Bolivia and Burundi, three landlocked countries, noted that rivers, streams and lakes are all part of the ocean system. A parliamentarian from the Congo noted that the Tanganika Lake must be protected because its waters flow far downstream into the Atlantic Ocean. The interventions of these parliamentarians were important reminders that the ocean system reaches well beyond the coasts.

Overall, the discussion made clear that, as one parliamentarian put it, “no single sector can tackle this alone.” Even highly coordinated governments cannot achieve their targets for SDG 14 without the full support of citizens, civil society organizations, and private companies.

The Role of Parliamentarians: Keeping Governments Focused

In the lead up to the UN Ocean Conference in June, parliamentarians must help their governments prepare for action on ocean sustainability. A sense of urgency around the issue is essential. Developed countries are encouraged to make generous voluntary commitments to support less developed nations in their work toward SDG 14. As one parliamentarian noted, the achievement of all of the SDGs will require unprecedented amounts of money.

A British parliament encouraged his colleagues to embark on a three-step action plan with respect to the UN Ocean Conference:

a) Before the conference: In consultation with constituents, identify the position that their governments should take on the issues that are being negotiated and advocate those positions with the relevant ministers.

b) During the conference: Monitor their government’s commitments.

c) After the conference: Hold their governments responsible for implementing the outcome document of the conference, and report to their world organization, the Inter-Parliamentary Union, on progress toward SDG 14’s realization.

For more information about the process leading up to the UN Ocean Conference, parliamentarians are encouraged to visit the dedicated website at <https://oceanconference.un.org/>

Public Awareness and Political Will

Parliamentarians have an important role to play in raising their constituents' awareness of laws that will protect and sustain the ocean. Throughout the hearing, the following methods of raising public awareness were discussed.

Partnering with Environment-focused NGOs

NGOs provide expertise on environmental issues and can be highly effective in grassroots activism, community-wide initiatives and social media campaigns. Parliamentarians can partner with NGOs to get the word out about decisions facing the government concerning ocean-related issues.

Advocating for Ocean Literacy in National Curricula

Parliamentarians can encourage their governments to include ocean literacy in their respective national curricula. Citizens must be committed to sustainability as a rationale for personal and political choices.³ Ocean literacy has practical benefits. A participant noted that during the 2005 tsunami, a young girl saved herself and others, including her parents, because she had learned at school that waters receding dramatically are a sign of an oncoming tsunami.

Developing a Consumer Force

By working with governments to ensure the private sector respects existing laws, parliamentarians can contribute to improved modes of production. Through raising public awareness, parliamentarians can help citizens organize themselves as a consumer force that demands more sustainable goods.

Using Social Media: Local, National, Regional Outreach

Parliamentarians noted that social media is effective for mobilizing citizens on environmental issues. Social media can organize local, national and regional communities for environmental advocacy and action.

Celebrating World Oceans Day--June 8

World Oceans Day is a global day of ocean celebration and collaboration for a better future. Parliamentarians suggested using June 8th to engage citizens in public awareness around ocean sustainability.

³ There are many existing ocean literacy curricula that are of high quality, many of which are open-source and free of charge. One model of an effective ocean literacy program is *Green Schools Ireland* which promotes long-term, whole-school action on behalf of the environment in concert with the surrounding community

V. Conclusion: Moving with Purpose towards the UN Ocean Conference

In preparation for the UN Ocean Conference in June, parliamentarians will be working to stir a debate on the ocean within their parliaments and amongst constituents, generating political will for a strong outcome document. Parliamentarians are encouraged to request a briefing on their governments' preparations for the Ocean Conference, as well as on the negotiations of a new international legally binding agreement under UNCLOS.

Parliamentarians will need to work pro-actively in support of laws, regulations and budgets that are consistent with the overarching objective of SDG 14 to reverse the decline of the ocean and secure its long-term sustainability. This will require a more critical perspective on a way of life, particularly in developed countries, that has created unsustainable rates of consumption and pollution. The crisis of the ocean's health represents an opportunity for a shift in value systems and behavior that is more aligned with sustainability and consideration for others, beginning with the most vulnerable.

The flowing ocean waters are a common good and a compelling argument for international cooperation and the observance of international laws. What some countries do or fail to do affects all other countries and the High Seas where no one country is in charge. All humans, even in inland States, are affected by the ocean's health.

The problem of ocean decline is too massive for any organization, country or sector to handle alone. All stakeholders---governments, parliaments, the private sector, civil society and NGOs, among others,-- must work together to support the ocean's ability to regenerate itself. In the words of one participant, "Yes we can, *collectively!*" should be the rallying cry of ocean lovers the world over.

Annex I Overview of themes discussed and participants

1. During the opening session, the audience was addressed by H.E Peter Thomson (President of the General Assembly), Hon. Saber Chowdhury (President of the Inter-Parliamentary Union) and Mr. Wu Hongbo (Under-Secretary-General, United Nations Department for Economic and Social Affairs), on behalf of Mr. António Guterres, Secretary-General.

2. The first segment of the hearing examined the state of the ocean, including challenges and opportunities, which were discussed by Hon. Mr. Nigel Evans (MP, House of Commons, United Kingdom), H.E. Carolyn Schwalger (Ambassador, Deputy Permanent Representative of New Zealand to the United Nations), Mr. Alan Simcock (Joint Coordinator Group of Experts - Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects), Ms Lisa Speer (Director, International Oceans Program, National Resources Defence Council) and Mr. Vladimir Ryabinin (Executive Secretary, Intergovernmental Oceanographic Commission).

3. During the second session, the audience was addressed by Hon. Gabriela Cuevas (Senate of Mexico), Hon. John Munyes (Senate of Kenya), H.E. Maria Helena Lopes de Jesus Pires (Permanent Representative of Timor-Leste to the United Nations), Mr. Nishan Degnarain (Chair of the Global Agenda Council on Oceans, World Economic Forum) and Mr. Sebastian Mathew (Executive Director of the International Collective in Support of Fishworkers). They examined the economic benefit of the ocean, specifically balancing exploitation with environmental preservation.

3. During the third session, the audience was addressed by Hon. Isabelle Lövin (Deputy Prime Minister and Minister for International Development Cooperation and Climate, Sweden, Co-President of the Ocean Conference), followed by contributions from H.E. Ahmed Sareer (Permanent Representative of the Maldives to the United Nations), Ms Chelsea Rochman (Co-Chair, Joint Group of Experts on the Scientific Aspects of Marine Protection, Working Group on Microplastics), Mr. Paul Holthus (Founding President and CEO, World Ocean Council) and Mr. Habib El-Habr (Coordinator, Global Programme of Action for the Protection of the Marine ENvironment from Land-Based Activities (GPA), UNEP). The discussion was focused on protecting and preserving marine life, particularly in the context of pollution of various types, marine debris and other waste, as well as considering opportunities for change.

4. During the second half of the third session, the audience was addressed by Hon. Jiko Fatafehi Luveni (Speaker, Parliament of Fiji), H. E. Isabelle Picco (Ambassador, Permanent Representative of the Monaco to the United Nations), Prof. Hans Otto Poertner (Alfred Wegener Institute, Co-Chair of the IPCC Working Group II), Ms Biliana Cicin-Sain (Global Oceans Forum). Topics climate change connection between rising sea levels, acidification and other changes within the ecosystem.

5. During the fourth session, the audience was addressed by Hon. Bilaibhan Sampatisiri (MP, National Assembly of Thailand), Mr. Kermenu Vella (Commissioner for Environment, Maritime Affairs and Fisheries, European Commission), H.E. Mauro Vieira (Permanent Representative of Brazil to the United Nations), Mr. Michael Lodge (Secretary General, International Seabed Authority), Ms Kristina Gjerde (Senior High Seas Advisor, IUCN Global Marine and Polar Programme) and Ms Jayne Stowell (Google UK, Member of the International Cable Protection Committee). The focus of this session was on governance of the ocean, strengthening of peace in a particularly oceanic context, maritime security, as well as cooperation and broad, friendly relations among all nations.

6. The closing session included a brief video presentation and remarks by Mr. Martin Chungong (IPU Secretary General) and H.E. Peter Thomson (President of the General Assembly).