



SUMMARY OF THE SEVENTEENTH MEETING OF THE UNITED NATIONS OPEN-ENDED INFORMAL CONSULTATIVE PROCESS ON OCEANS AND THE LAW OF THE SEA: 13-17 JUNE 2016

The seventeenth meeting of the UN Open-ended Informal Consultative Process on Oceans and the Law of the Sea (Consultative Process or ICP-17) convened from 13-17 June 2016 at the UN Headquarters in New York. The meeting brought together representatives from governments, intergovernmental organizations, non-governmental organizations and academic institutions to examine this year's topic: "Marine debris, plastics and microplastics."

On Monday and Thursday, there was a general exchange of views. On Monday afternoon and Tuesday morning, delegates heard panel presentations and engaged in discussion on the first segment, "The environmental, social and economic dimensions of marine debris, plastics and microplastics, and progress made in preventing, reducing and controlling pollution from marine debris, plastics and microplastics." On Tuesday afternoon and all day Wednesday, delegates engaged with the second segment on: "Challenges, lessons learned, best practices and way forward to prevent, reduce and control pollution from marine debris, plastics and microplastics."

On Thursday, delegates convened in plenary to discuss: inter-agency cooperation and coordination; the process for the selection of topics and panelists so as to facilitate the work of the UN General Assembly (UNGA); and issues that could benefit from attention in the future work of the UNGA on oceans and the law of the sea. The Co-Chairs, Amb. Nicholas Emiliou (Cyprus) and Amb. Gustavo Meza-Cuadra (Peru), distributed a Co-Chairs' summary of discussions on Friday morning. After all paragraphs of the report had been reviewed, the Co-Chairs gavelled the meeting to a close at 12:44 pm.

A BRIEF HISTORY OF THE LAW OF THE SEA AND THE CONSULTATIVE PROCESS

On 1 November 1967, Malta's Ambassador to the UN, Arvid Pardo, asked the nations of the world to recognize a looming conflict that could devastate the oceans. In a speech to the UNGA, he called for "an effective international regime over the seabed and the ocean floor beyond a clearly defined national

jurisdiction." The speech set in motion a process that spanned 15 years and saw: the creation of the UN Seabed Committee; the signing of a treaty banning the emplacement of nuclear weapons on the seabed; the adoption of a UNGA declaration that all resources of the seabed beyond the limits of national jurisdiction are the "common heritage of mankind"; and the convening of the Stockholm Conference on the Human Environment. These were some of the factors that led to the Third UN Conference on the Law of the Sea during which UN Convention on the Law of the Sea (UNCLOS) was adopted.

UNCLOS: Opened for signature on 10 December 1982 in Montego Bay, Jamaica, at the Third UN Conference on the Law of the Sea, UNCLOS sets forth the rights and obligations of states regarding the use of the oceans, their resources, and the protection of the marine and coastal environment. UNCLOS entered into force on 16 November 1994, and is supplemented by the 1994 Deep Seabed Mining Agreement and the 1995 Agreement for the Implementation of the Provisions of UNCLOS relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.

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UNGA RESOLUTION 54/33: On 24 November 1999, the UNGA adopted resolution 54/33 on the results of the review undertaken by the UN Commission on Sustainable Development at its seventh session on the theme of “Oceans and Seas.” In this resolution, the UNGA established an Open-ended Informal Consultative Process (ICP) to facilitate the annual review of developments in ocean affairs. The UNGA decided that the Consultative Process would meet in New York and consider the Secretary-General’s annual report on oceans and the law of the sea, and suggest particular issues to be considered by the UNGA, with an emphasis on identifying areas where intergovernmental and inter-agency coordination and cooperation should be enhanced. The resolution further established the framework within which ICP meetings would be organized, and decided that the UNGA would review the effectiveness and utility of the ICP at its 57th session.

ICP-1 to 3: The first three ICP meetings identified issues to be suggested and elements to be proposed to the UNGA, and highlighted issues that could benefit from attention in its future work. The first ICP meeting (30 May - 2 June 2000) held discussion panels addressing fisheries and the impacts of marine pollution and degradation. The second meeting (7-11 May 2001) focused on marine science and technology, and coordination and cooperation in combating piracy and armed robbery at sea. The third meeting (8-15 April 2002) held discussion panels on the protection and preservation of the marine environment, capacity building, regional cooperation and coordination, and integrated oceans management.

UNGA RESOLUTION 57/141: On 12 December 2002, the 57th session of the UNGA adopted resolution 57/141 on “Oceans and the law of the sea.” The UNGA welcomed the ICP’s previous work, extended it for an additional three years, and decided to review the ICP’s effectiveness and utility at its 60th session.

ICP-4 to 6: The fourth meeting of the ICP (2-6 June 2003) adopted recommendations on safety of navigation, the protection of vulnerable marine ecosystems, and cooperation and coordination on ocean issues. The fifth meeting (7-11 June 2004) adopted recommendations on new sustainable uses of oceans, including the conservation and management of the biological diversity of the seabed in areas beyond national jurisdiction. The sixth meeting of the Consultative Process (6-10 June 2005) adopted recommendations on fisheries and their contribution to sustainable development, and considered the issue of marine debris.

UNGA RESOLUTION 60/30: On 29 November 2005, the 60th session of the UNGA adopted resolution 60/30 on “Oceans and the law of the sea.” The UNGA decided to continue with the Consultative Process for the next three years, in accordance with resolution 54/33, with a further review of its effectiveness and utility by the Assembly at its sixty-third session.

ICP-7 to 9: The seventh meeting (12-16 June 2006) enhanced understanding of ecosystem-based management, and adopted recommendations on ecosystem approaches and oceans. The eighth meeting (25-29 June 2007) discussed issues related to marine genetic resources. Delegates were unable to agree on key language referring to the relevant legal regime for marine genetic resources in areas beyond national jurisdiction, and as

a result no recommendations were adopted and a Co-Chairs’ summary report was forwarded to the UNGA for consideration. The ninth meeting (23-27 June 2008) adopted recommendations on the necessity of maritime security and safety in promoting the economic, social and environmental pillars of sustainable development.

UNGA RESOLUTION 63/111: On 5 December 2008, the 63rd session of the UNGA adopted resolution 63/111 on “Oceans and the law of the sea.” The UNGA decided to continue with the Consultative Process for two more years, and decided that the Consultative Process at its tenth meeting will focus its discussions on the implementation of the outcomes of the Consultative Process, including a review of its achievements and shortcomings in its first nine meetings.

ICP-10 to 11: The tenth meeting (17-19 June 2009) produced a Co-Chairs’ summary report collating outcomes of its discussions on the implementation of the ICP outcomes, including a review of achievements and shortcomings in its first nine years, which was forwarded to the UNGA for consideration. The outcome of the eleventh meeting (21-25 June 2010) was a Co-Chairs’ summary of discussions, including on: capacity building for marine science; inter-agency cooperation and coordination; issues that could benefit from attention in future work of the UNGA on ocean affairs and the law of the sea; and the process for the selection of topics and panelists so as to facilitate UNGA work.

UNGA RESOLUTION 65/37: On 7 December 2010, the 65th session of the UNGA adopted resolution 65/37 on “Oceans and the law of the sea.” The UNGA decided to continue with the Consultative Process for two more years.

ICP-12 to 13: The outcome of the twelfth meeting (20-24 June 2011) was a Co-Chairs’ summary of discussions forwarded to the UNGA, regarding, *inter alia*: progress to date and the remaining gaps in the implementation of oceans- and seas-related outcomes of the major summits on sustainable development; new and emerging challenges for the sustainable development and use of oceans and seas; and the road to the UN Conference on Sustainable Development (UNCSD, or Rio+20) and beyond. The thirteenth meeting (29 May - 1 June 2012) produced a Co-Chairs’ summary of discussions detailing: a general exchange of views on marine renewable energies; inter-agency cooperation and coordination; the process for the selection of topics and panelists so as to facilitate the work of the UNGA; issues that could benefit from attention in future work of the UNGA on oceans and the law of the sea; and the outcome of the meeting.

UNGA RESOLUTION 67/78: On 11 December 2012, the 67th session of the UNGA adopted resolution 67/78 on “Oceans and the law of the sea.” The UNGA decided to continue with the Consultative Process for two more years.

ICP-14 to 15: The outcome of the fourteenth meeting (17-20 June 2013) was a Co-Chairs’ summary of discussions detailing: views on ocean acidification; inter-agency cooperation and coordination; the process for the selection of topics and panelists so as to facilitate UNGA work; issues that could benefit from attention in future UNGA work on oceans and the law of the sea; and the outcome of the meeting. The fifteenth meeting (27-30 May 2014) considered, among other things, the role of seafood in global food security, inter-agency cooperation and

coordination; the process for the selection of topics and panelists so as to facilitate UNGA work; and issues that could benefit from attention in the future UNGA work on oceans and the law of the sea.

UNGA RESOLUTION 69/245: On 29 December 2014, the 69th session of the UNGA adopted resolution 69/245 on “Oceans and the law of the sea.” The UNGA decided to continue with the Consultative Process for two more years, with a further review of its effectiveness and utility by the UNGA at its 71st session in 2016.

ICP-16: The sixteenth meeting (6-10 April 2015) convened under the theme of oceans and sustainable development. Topics discussed during the week included: the environmental, social and economic dimensions of oceans; progress made in integrating these three dimensions; activities and initiatives promoting their integration; and opportunities for, and challenges to, the enhanced integration of the three dimensions. Among others, participants also considered inter-agency cooperation and issues that could benefit from attention future UNGA work on oceans and the law of the sea.

ICP-17 REPORT

Co-Chair Gustavo Meza-Cuadra, Permanent Representative of Peru to the United Nations, opened ICP-17 on Monday, 13 June 2016, convening under the theme “Marine debris, plastics and microplastics.”

Miguel de Serpa Soares, Under-Secretary-General for Legal Affairs and UN Legal Counsel, noted the “alarming picture” of how marine debris is affecting oceans and hindering sustainable development. He highlighted the need for strengthening implementation of legal and policy instruments, including the UN Convention of the Law of the Sea (UNCLOS), and underscored that oceans are essential to efforts to achieve sustainable development.

Lenni Montiel, UN Department of Economic and Social Affairs (DESA), speaking on behalf of Wu Hongbo, Under-Secretary-General for Economic and Social Affairs, underscored marine pollution as among the most dangerous threats to the planet caused by human activities. Welcoming the decision to hold the high-level UN Conference to Support the Implementation of Sustainable Development Goal (SDG) 14 in Fiji in June 2017, he underscored DESA’s commitment to ensure its success.

Co-Chair Meza-Cuadra reiterated the ICP’s role to facilitate the review of the UNGA on the topic, stating marine debris as one of the most compelling threats to the health of the world’s oceans, and pointed to the importance of enhancing cooperation at national, regional and international levels. He then introduced the format and annotated agenda (A/AC.259/L.17), which was adopted without amendment.

Gabriele Goettsche-Wanli, Director, UN Division for Ocean Affairs and the Law of the Sea (UNDOALOS), provided an update on the Voluntary Trust Fund to assist with the attendance of developing countries at ICP meetings, noting no new contributions since ICP-16, and explaining that without additional contributions, the Trust Fund will be depleted by ICP-18.

GENERAL EXCHANGE OF VIEWS

On Monday morning, delegates delivered general statements on the meeting’s topic. Many delegates congratulated the Co-Chairs on their appointment, and thanked the UN Legal Counsel, DESA, the UNDOALOS Secretariat, and the Secretary-General for the preparation of the Secretary-General’s report on oceans and the law of the sea to guide the discussions at ICP-17.

Thailand, on behalf of the Group of 77 and China (G-77/China), welcomed that SDG target 14.1 calls for significantly reducing marine debris, plastics and microplastics (MDPMs). She noted knowledge and data gaps and urged consideration of the special needs of some developing countries in dealing with land-based sources of marine debris and adequate waste management infrastructure.

South Africa, for the African Group, said the findings of the Secretary-General’s report are “cause for alarm,” urging “immediate and resolute” action, including on the effective implementation of UNCLOS.

The European Union (EU) emphasized that marine litter is a transboundary issue, and noted initiatives by the second UN Environment Assembly (UNEA-2), the International Maritime Organization (IMO), the Group of 7 (G7), European regional seas conventions, and the EU. He stressed that while marine litter typically is an “end-of-pipe problem,” steps promoting prevention, reduction, reuse, recycling, and restriction of certain plastics are important.

Maldives, for the Alliance of Small Island States (AOSIS), said marine debris and plastics disproportionately impact small island developing states (SIDS), affecting food security, fishing, tourism and “our very livelihoods.” He called for help from the global community to increase SIDS’ capacity to recycle and retrieve marine debris. He also urged addressing the underlying causes of marine pollution, including unsustainable consumption and production patterns.

Nauru, for the Pacific Small Island Developing States, stressed the need to, *inter alia*, increase public awareness on the connection between poor waste management and marine litter, and strengthen facilities and services to increase recycling and recovery rates through innovative technologies. He called for support from the international community to help SIDS address the limitations of infrastructure, lack of equipment, and expertise.

Singapore expressed hope that ICP-17 would contribute to achieving enhanced coordination and cooperation within the UN Secretariat and among specialized agencies, particularly towards achieving SDG 14 on oceans.

Trinidad and Tobago called for, *inter alia*: an enabling framework to tackle the issue upstream at the source and downstream to deal with existing marine debris; and improved multi-stakeholder collaboration.

Monaco stressed the need for changing consumption and production patterns to reduce the pressure human activities pose on ecosystems and marine habitats.

Argentina said measures should be taken should within the framework of UNCLOS Article 192, in which Member States have an obligation to protect and conserve the environment.

New Zealand stressed the need to move from the linear economic model of “take, make, and dispose,” to a circular economy.

Norway highlighted the threat to world food security through bioaccumulation of plastics and microplastics in seafood, and called for strengthened action to reduce MDPMs and move towards a “circular plastic economy.” Among other initiatives, he mentioned a Norwegian fund of €1.5 million for volunteers contributing to marine debris removal.

Underscoring MDPMs as a “critically urgent topic,” the US reported that there will be more plastic than fish by weight in the oceans by 2050, and discussed the Microbead-Free Waters Act of 2015, recently signed into law by President Obama.

Australia stressed the need for international cooperation on addressing MDPMs, and called for greater research, monitoring, public outreach, education and reduction of debris from land- and marine-based sources. She explained local initiatives in which indigenous ranger groups perform regular patrols to remove marine debris and ghost nets.

Costa Rica reported that eight million tonnes of plastic end up in the oceans each year, observing this is the equivalent of one lorry of waste per minute. She underscored the importance of prioritizing public policy to manage solid waste, including through inhibiting certain types of plastic packaging and single-use plastic bags.

Underscoring the importance of the ICP as a unique platform to discuss the entire spectrum of issues affecting oceans, the Russian Federation urged not limiting ICP discussions to the 2030 Agenda on Sustainable Development and SDG 14, which already have a forum.

Viet Nam called for support to developing countries to address MDPMs, including promoting investment in infrastructure development, cataloging marine debris, and building waste processing and recycling systems.

Japan noted G7 initiatives, including from the 2016 G7 Environment Ministers’ communiqué, outlining priority measures to implement the Action Plan to Combat Marine Litter adopted at the 2015 G7 Summit.

Calling MDPMs a global problem that recognizes no national borders and causes impacts beyond national jurisdictions, Peru called for cooperation on regulation and legislation to address the challenge.

Canada discussed national initiatives to address marine waste, including a proposed new regulation to ban microbeads expected to be in place by 2017.

Bangladesh said that meeting SDG target 14.1 would require an adequate enabling framework and national, regional and global efforts. He urged ICP-17 to provide a significant contribution to the UN Conference to Support the Implementation of SDG 14.

Iceland noted that sources of MDPMs are both land- and sea-based, and called for appropriate attention to be given to both types, based on the best scientific knowledge available.

On Thursday morning the general exchange of views continued. India presented several national initiatives that address marine debris, including: a national mission to clean the Ganges; periodic beach cleanups conducted by local communities; and marine waste management plans.

The International Union for Conservation of Nature (IUCN) suggested several actions to tackle marine debris, including establishing regional expert panels on relevant topics and disclosing the plastic footprints of companies in their annual reports.

Sri Lanka underscored the need to recognize constraints faced by developing countries, particularly SIDS and least developed countries, such as insufficient infrastructure, resources and capacities, and cautioned that consideration of these issues should precede regulation. Suggesting that developing countries are the most vulnerable to issues of MDPMs and the most strategically placed to respond, he called for capacity building to enable them to become “marine stewards.”

Honduras called for more rigid regulations of MDPMs in seas and oceans to protect coral reefs, underlining the importance of a focus on prevention, also stating the need for global environmental standards and reference points.

Mauritius called for better coordination between lawmakers, scientists and policymakers in all countries to develop a roadmap for concrete actions to address MDPMs, and suggested enhancing public-private partnerships (PPPs) to work with the industrial sector.

Fiji called for a more holistic approach that strategically empowers national laws and regulations, and strengthens regional organizations and bodies to reinforce existing instruments. Stating that MDPMs posed an existential threat for Fijians’ primary source of food and livelihoods, he observed that SDG 14 gave a concrete mechanism for reducing marine pollution.

Noting that the issue of marine debris had become a prominent focus of the Convention on Biological Diversity (CBD) in recent years, the CBD Secretariat highlighted, *inter alia*: voluntary practical guidance on preventing and mitigating the impacts of marine debris on marine and coastal biodiversity and habitats that will be considered by the thirteenth meeting of the Conference of the Parties to the CBD in December 2016; and the Sustainable Ocean Initiative.

The Inter-American Convention for the Protection and Coordination of Sea Turtles (IAC) stressed the importance of articulating policies and actions on MDPMs at the local level, and agreed on the importance of building synergies between conventions and bodies and between the scientific, technical and policy communities.

The Intergovernmental Oceanographic Commission (IOC) discussed its sponsorship of the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) Working Group 40 (WG40) and the Open Ocean and Large Marine Ecosystem components of the Global Environment Facility’s Transboundary Waters Assessment (TWAP). He noted WG40’s 2015 “state-of-the-art” assessment of microplastics in the marine environment and 2016 interim assessment on the impact of microplastics on commercial fish and shellfish species. He discussed the May 2016 TWAP report on marine pollution, including micro- and macro-plastic debris, which concluded that floating plastic is now globally ubiquitous.

Ocean Care called for the global community to advance effective legal frameworks and regulation at global and national levels, including: phase-out of disposable plastics;

immediate phase-out of the most hazardous plastics; and a ban on microplastics in cosmetic products. She urged the creation of an international task force to close gaps in existing legal frameworks.

DISCUSSION PANELS

On Monday afternoon, Tuesday and Wednesday, delegates heard panel presentations on “The environmental, social and economic dimensions of marine debris, plastics and microplastics, and progress made in preventing, reducing and controlling pollution from marine debris, plastics and microplastics” and “Challenges, lessons learned, best practices and way forward to prevent, reduce and control pollution from marine debris, plastics and microplastics.”

The environmental, social and economic dimensions of marine debris, plastics and microplastics and progress made in preventing, reducing and controlling pollution from marine debris, plastics and microplastics: On Monday afternoon, Peter Kershaw, Chair, GESAMP, presented key findings from a GESAMP study. He said microplastics: have many different sources and entry points, meaning multiple intervention points and measures are necessary; are distributed widely in the ocean, shorelines, seawater, and the seabed; are taken up by biota on a widespread scale; absorb and release harmful chemicals; are present in seafood, which raises potential for consumer concern; have potential for rafting and transferring organisms; and cannot be removed from the ocean, thus prevention is key.

As land-based sources of primary microplastics, he identified: plastic pellets; industrial/ manufacturing sources, including industrial abrasives, injection powders, 3D printing powders, and personal care products (PCPs). As land-based sources of secondary microplastics, he noted: vehicle tire wear dust; fabrics, clothing fibres; and macroplastics. The sea-based sources of primary microplastics he identified are: commercial shipping, through accidental loss of pellets; and tourist cruises, through PCPs and wastewater treatment. As sea-based sources of secondary microplastics, he noted: fisheries and aquaculture, including wear and tear of nets, ropes and other gear during use; wear and tear of equipment during recreational use; and textile fibres from tourist cruises.

Lorna Inness, Former Joint Coordinator, First World Ocean Assessment (WOA-1), presented an overview of the issue and highlighted knowledge gaps, based on insights from WOA-1. Observing that marine litter is transported in ocean circulation patterns, she gave an overview of its environmental and socio-economic impacts. On environmental impacts, she explained that these are mainly related to entanglement and ingestion of marine litter, and reported a 40% increase in affected species between 1997 and 2012. She gave an overview of impacts on biodiversity, including: entanglement effects, such as immediate mortality through drowning, suffering due to limited mobility, and progressive debilitation; and ingestion effects, including mistaking debris for food. On socio-economic impacts, she underscored the effects on coastal tourism and those whose livelihoods are based on fisheries. She pointed to the need for, *inter alia*: more research on quantifying socio-economic impacts; better understanding of sources and impacts; and standardization of monitoring protocols.

In the subsequent discussion, issues raised included: recommendations for gaps in current knowledge and priorities for further research; the aim of WOA to enable capacity development; how to contribute to WOA; and regional approaches to cleanup processes.

Jenna Jambeck, University of Georgia, US, reported that plastic trash in oceans around the globe is a daily growing problem since plastics do not biodegrade in the ocean. She reported on a study by the National Center for Ecological Analysis and Synthesis (NCEAS) estimating that 4.8-12.7 million metric tonnes of plastic entered the ocean from countries bordering the Atlantic, Pacific and Indian Oceans, and Mediterranean and Black Seas, stating further estimates that if the trend continues this number will double by 2025. She discussed possible mitigation options, including: reducing demand for plastics; changing materials and process design; improving waste management globally; and improving capture of litter before it enters the oceans. She urged developing culturally appropriate approaches in all cases.

In response to questions, Jambeck said: no currently sold plastics biodegrade in the ocean, so promotion of so-called biodegradable plastics is not yet a true mitigation option; and producers of plastics and products in plastic packaging need to be engaged as stakeholders in addressing this problem.

Kelsey Richardson, Former Marine Debris Consultant, Secretariat of the Pacific Regional Environment Programme (SPREP), expressed concern over marine debris caused by fish aggregating devices (FADs), and recommended: increasing observer coverage for longline fishing vessels; better law enforcement; outreach and compliance assistance programmes to inform ship masters, mariners, and ports about correctly disposing garbage, wastes and pollution generated onboard fishing vessels; investing in expanded capacity port reception facilities (PRFs); and increasing collaboration among all relevant stakeholders.

In the ensuing discussion, delegates requested information on: biodegradables, as studies note their effectiveness in different environments but not in oceans; and ways to address waste at the source, through plastic producers and manufacturers.

Peter Van den Dries, Flemish Waste Agency, presented on the collection of ship waste in Belgian seaports. He suggested the important contribution of ships to marine litter, noting studies that contradict the claim that 80% of marine debris originates from land-based sources, and gave examples from Western Europe that allocate much larger shares to shipping-based sources. Giving an overview of the EU directives on ship-generated waste, he highlighted: mandatory waste delivery from ships before leaving ports; cost recovery systems that follow the polluter pays principle; and enforcement schemes. He suggested that adequate PRFs and incentive schemes are two key elements of ensuring ship waste is delivered on-shore. Outlining the Flemish approach for collection and management of ship waste, he spoke about: the fee system used; the strong stakeholder involvement in consultation forums; and the open market approach that maximizes business opportunities for private investment.

Stefan Micallef, IMO, explained that Annex V of the International Convention for the Prevention of Pollution

from Ships (MARPOL) bans the discharge or dumping of plastics from ships in all marine environments, and allows for designating Special Areas where higher levels of protection are imposed. He also mentioned the development of guidelines on PRFs and six regional workshops to build capacity on PRFs. He explained the differing obligations of port, flag and coastal states in implementing and enforcing MARPOL obligations.

In response to questions, he said: MARPOL was amended to accommodate regional PRFs for SIDS; the London Convention and London Protocol on Dumping do not obligate ship masters to report marine waste that might pose navigation hazards; national authorities decide how recyclables sorted by ships are handled by their PRFs; there are only eight Special Areas under MARPOL because designation relies on specific requests of Member States; and ways of compelling port states to provide adequate PRFs is an ongoing issue.

On Tuesday morning, Andrew Booth, SINTEF Materials and Chemistry, spoke on the ecotoxicological impacts of microplastics on marine organisms. Suggesting there was a need for more ecologically-relevant impact studies on different marine species, including those used for seafood, he outlined recorded impacts from existing studies that show, *inter alia*: a strong inflammatory response in Blue Mussels following ingestion of microplastics; negative impacts on oyster reproduction following exposure to polystyrene microplastics; and decreased growth rates in European Perch, where juvenile fish are reported to favor ingestion of microplastics over food.

Responding to questions from the floor, Booth discussed, *inter alia*: new projects funded as part of the EU Joint Programming Initiative to assess the difference in toxicity between primary microplastics and secondary microplastics; knowledge gaps on the transfer of contamination along the food chain; the need for more analysis of impacts on fish stocks; and the need for large scale, international projects to address the issue.

Diego Alejandro Albareda, Chair, Scientific Committee of the IAC, explained that the waters and coasts of South America are very important for the nesting, migration, and growth of five sea turtle species. He said all IAC Contracting Parties have reported sea turtle problems involving plastics, with ingestion reported by eight parties. He discussed the lethal and sub-lethal impacts on turtles from plastic ingestion, as well as types of habitat degradation resulting from plastic accumulation in nesting beaches, and said mitigation or remediation measures are often difficult to implement due to a lack of coordination with provincial and local governments and a lack of human resources.

In response to questions, Albareda explained that while undertaking scientific research on sea turtles is difficult due to specialized human and technical resource needs, the IAC is working on facilitating this type of research in other areas beyond the Rio de la Plata basin. He also reported that sea turtles have been researched more than other species such as sharks, whales and dolphins, because scientists have easier access to them for study and they are considered excellent indicators of what is going on with other marine animals.

Tamara Galloway, Exeter University, UK, said there is no published data to indicate that marine microplastics and nanoplastics pose a risk to human health, since research projects on the subject area are very expensive and difficult to undertake,

noting, however, that there is much evidence for the plausibility that such a risk exists. She explained that microplastics rapidly absorb organic material, metals, bacteria and toxic substances, which can leach harmful substances into the human body, and that European shellfish consumers risk ingesting 50 microplastic particles per plateful, and potentially 11,000 particles per year. She stressed the need for: better methods that assess microplastics and their impact on human tissues; identifying the prevalence of seafood contamination with microplastics; and funding and support from governmental agencies for research.

In the ensuing conversation, delegates raised questions related to: causes and possible solutions for existing knowledge gaps; the impacts of plastic ingestion for reproduction of seafood species; and whether there are differences in the toxicity caused by ingestion of primary microplastics compared to secondary microplastics.

Nishan Degnarain, Chair, Global Agenda Council on Oceans, World Economic Forum, spoke on economic aspects, reporting a 20-fold increase in marine debris in the last 50 years. He highlighted packaging as a major source of plastic pollution, and suggested steps for the public and private sector to transition to a “New Plastics Economy,” including: establishing a Global Plastics Protocol; coordinating large-scale pilots, demonstration projects, and “moon-shot” innovations; engaging policymakers; coordinating and driving communication on the issue; and developing a base of economic and scientific evidence. He underscored the important role of good governance, noting that new technologies could be transformational in this respect.

Responding to questions from the floor, Degnarain gave examples of existing PPPs such as the Tropical Forest Alliance, and highlighted important elements of a possible Global Plastics Protocol, such as: global standards for package design, marketing and labeling; a framework for reusable business-to-business retail packaging, and effective supply chains to create industry clusters for reusing the packaging; and an economic framework for recycling.

Hideshige Takada, Tokyo University of Agriculture and Technology, discussed various monitoring programmes on microplastics and hazardous chemicals in water, sediment and biota. He highlighted a study of Tokyo Bay, where microplastics were found in the digestive tracts of 77% of anchovies sampled. He described the work of International Pellet Watch to monitor persistent organic pollutants (POPs) though the examination of beached plastic pellets found on every beach in the world, reporting findings of POPs, including polychlorinated biphenyls (PCBs) and polybrominated diphenyl ethers (PBDEs), in marine microplastics and seabirds in remote areas. He also discussed examination of ocean sediment cores in Asia and Africa, which have shown rapid increases in microplastic pollution in all areas, and suggest the need for more precautionary action to avoid toxicological effects from rising exposure to microplastic-associated POPs.

Responding to questions, Takada suggested regulating polyvinyl chloride (PVC) and polyethylene (PE) first among plastics, the former because of the additives used, and the latter because of its absorptive capacity and ability to be carried over long distances in marine environments. He said currently there is no data on the accumulation of plastic additives in the

tissue of fish and seafood we consume. He urged exercising the precautionary principle by taking urgent steps to stop the influx of plastics into the ocean, suggesting the phase-out of all single-use plastics as an effective first step.

Britta Denise Hardesty, Commonwealth Scientific and Industrial Research Organization, spoke about the risks posed by marine debris to wildlife and fish destined for human consumption through entanglement, ingestion, and contamination. She noted that items such as ropes, fishing gear, and plastic bags are worst for entanglement, while bags and food utensils pose the greatest threat for ingestion. She said a risk framework could be a useful lens for the problem, while combining empirical data and modeling could enable scientists to better identify interdiction points, sources and sinks of plastic pollution.

In the ensuing discussion, Hardesty identified knowledge gaps and priorities for research activities, including: ingestion and entanglements concerning dolphins and whales; entanglement for other taxa; the loss rates in the environment through flows and watersheds; and the impacts on seabirds. She called for: outreach, education and raising awareness for behavioral changes; setting rubbish and litter traps on rivers; tagging FADs; and collaborating with global organizations like the Food and Agriculture Organization of the UN (FAO) to enable work with existent data on global fisheries.

Challenges, lessons learned, best practices, and way forward to prevent, reduce and control pollution from marine debris, plastics and microplastics: On Tuesday afternoon, Arif Havas Oegroseno, Deputy Minister, Coordinating Ministry for Maritime Affairs, Indonesia, presented the Indonesian experience on waste management, explaining that while Indonesia has a national land-based waste management policy, it has no specific policy on marine plastic debris leakage. He described national efforts to respond to this through conducting national assessments and said Indonesia planned to develop a road map for addressing marine plastic by the end of the year, following its National Marine Plastic Pollution Summit in November 2016.

In the ensuing discussions, Oegroseno responded to questions, including on: waste banks, where people can open accounts to deposit sorted organic and non-organic waste, in exchange for a monetary value based on the weight of the deposit; and the government's work with key sectors on waste management, including tourism, finance and retail.

Anthony Glenroy McKenzie, National Environment and Planning Agency, Jamaica, outlined the challenges Jamaica faces in addressing wastes from plastics and plastic packaging, including limited littering enforcement, outdated waste legislation, limited opportunities to generate income from waste, and inadequate disposal sites. He reviewed strategies under consideration, including: expansion of a resource recovery programme; restrictions on single-use plastic bags; promulgation of regulations related to waste containerization, collection and haulage; increases in fines; take-back regulations; deposit-refund schemes; bans on certain packaging materials; and support for alternative biodegradable material. He also discussed the issues faced by Jamaica to handle ship-generated waste as a country in a MARPOL Annex V Special Area that still does not have a PRF.

In response to a question, McKenzie said Jamaica does not yet have a physical PRF, but does have a mechanism to accept, log and track waste from ships to authorized points of disposal.

Belen Fernandez, Mayor, Dagupan City, Philippines, spoke about the importance of local government units' ownership of the 2030 Agenda for Sustainable Development, particularly SDG 14. She presented several city initiatives to keep the ocean free from marine debris and address waste, including: enrolling informal settlers for free health care protection and providing free housing facilities; dumpsite closures and rehabilitation through tree planting; and ocean and river cleanups.

Questions from the floor addressed issues pertaining to the collaboration between government and industry, and ways to work with tourists to solve problems to which they have contributed.

Judith Neumann, German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, noted that the majority of plastic entering the ocean originates from five rapidly growing economies: China, Indonesia, the Philippines, Thailand and Vietnam. She spoke about the G7 Action Plan to Combat Marine Litter and G7-specific measures, including: sharing best practices, including regional extension to G20 countries and Asia-Pacific Economic Cooperation (APEC); sustainable financing strategies in cooperation with international financial institutions; and workshops on marine litter monitoring and addressing raising the awareness of seafarers on sea-based sources. She added that the 2016 G7 Summit Outcome set as a goal to "initiate a global movement to combat marine litter." She presented the European Marine Strategy Framework Directive, which asks each EU Member State to maintain good environmental status by 2020, including through developing a marine strategy for its marine waters and elaborating a national programme of measures.

Nancy Wallace, National Oceanic and Atmospheric Administration (NOAA), US, presented on the "Marine Debris Program," the aim of which is to lead efforts in the US to research, prevent and reduce impacts of marine debris. Stressing that human activity is the sole source of marine debris, she underscored that while there are gaps in knowledge, we have enough information already to know we need to take action. She described NOAA's support for community-based removal projects to restore damaged habitats and mitigate further damage, and emphasized prevention as the most important long-term action, outlining teacher training, community outreach, and improved waste management infrastructure as solutions.

During the ensuing discussion, Wallace pointed to the importance of global initiatives such as the Global Partnership on Marine Litter, since "the ocean has no borders." She gave examples of PPPs such as "Fishing for Energy," a partnership between NOAA, Covanta and the National Fish and Wildlife Foundation, enabling free-of-charge disposal of old fishing gear.

Nilufer Oral, Istanbul Bilgi University, Turkey, focused on a regional seas approach to the marine debris issue, pointing out that most MDPMs are from land-based sources at the local level, but with regional impacts that can best be addressed through coordinated and harmonized approaches. She stated that the 13 regions in the United Nations Environment Programme's (UNEP) Regional Seas Programmes (RSP) cover 143 countries,

all with conventions but only some with protocols on land-based sources of marine pollution and action plans on marine litter. She urged ensuring that all RSP agreements have action plans on marine litter, monitoring programmes, and well-funded secretariats.

Johanna Eriksson, Swedish Agency for Marine and Water Management, discussed marine litter work within the Regional Sea Conventions (RSCs) for the North-East Atlantic (OSPAR) and the Baltic Sea (HELCOM). She explained the two RSCs developed Regional Action Plans on marine litter, with actions divided between country-led regional actions and voluntary national actions. She said the plans provide a political context and a common framework and structure for work to be carried out at national and local levels.

In response to suggestions by Mexico and Peru about options for an international regulatory framework to address plastic marine waste, Oral said that while there is no task force or other mechanism yet toward that end, UNEP is trying to map the gaps in current instruments and action plans to identify where more work needs to be done. She suggested that since 80% of marine pollution comes from land-based sources, regional approaches might work best, and suggested an initial “soft law” approach that builds into binding regional commitments.

On Wednesday morning, Heidi Savelli, UNEP, gave an overview of the outcomes from UNEA-2 on marine plastic litter and microplastics. She reported that UNEA Resolution 2/11 (UNEP/EA.2/L.12/Rev) *inter alia*: recognizes that plastic litter and microplastics require an urgent global response taking into account a product life-cycle approach; acknowledges regional action plans on marine litter and urges collaboration to establish further plans; underlines the need for greater knowledge and experience on the best available techniques and environmental practices for reducing littering from the fishing industry and aquaculture; requests UNEP to support Member States to develop marine litter action plans; and requests UNEP to identify gaps and potential solutions to be identified and reported at UNEA-3.

Responding to questions from the floor, Savelli discussed: UNEP’s previous experience on education and awareness raising, including on the first massive open online course (MOOC) on marine litter that took place in October 2015, involving 6,500 participants; plans to develop MOOC modules in English and Spanish; plans to take stock on progress and lessons learned on implementing action plans so far; and how to facilitate lesson-sharing between regions.

Georg Caspary, World Bank Group, outlined the Group’s Pollution Management and Environmental Health Trust Fund (PMEH), one component of which addresses land-based pollution management to protect the marine environment. He said the Fund has limited grant money to provide technical assistance to aid planning and filling knowledge gaps, with a view to identifying the problems and analyzing and costing possible solutions. After that stage, he said, countries must be willing to invest, either by getting a loan from the Bank or negotiating with another lender with PMEH help. He noted a plastics pilot study in Colombia involving the Magdalena River, which indicated the most cost-effective action was that

done upstream. He reported that the Bank will carry forward this lesson in the next stage of PMEH work in other regions, particularly the South China Sea.

In response to suggestions from Costa Rica and Venezuela, Caspary said the Bank was ready to advise countries wanting to explore regulatory options for plastic packaging, as long as it can be backed up by institutional capacity on the ground and funding for implementation. He noted most developing countries do not want to be “guinea pigs” for exploring regulatory innovations, but said the Fund’s research component may look at solutions that exist in developed countries that may be tweaked and scaled for use in developing countries.

Richard Northcote, Covestro, presented initiatives of plastic makers in support of marine litter prevention and waste management. He described the “Trash Free Seas Alliance,” supported by the World Plastics Council and the Ocean Conservancy, which plans to: accelerate the development of local management, through raising collection rates and reducing post-collection leakages; pilot waste treatment options by creating economic incentives to prevent waste dumping; and re-engineer product life cycles through waste minimization innovation. He provided several recommendations: designing regional measures to ensure plastic waste does not reach the oceans; sharing knowledge and best practices with emerging economies; raising awareness and education on waste management; and promoting stewardship of plastic pellets through initiatives like “Operation Clean Sweep.”

In response to questions raised by participants, Northcote explained that complex polymers make plastic products valuable in terms of benefits but very hard to recycle. Noting that it is currently very expensive to recycle complex polymers, he stressed the need to find effective recycling methods, which would require carbon pricing to ensure a global level playing field and investment in research and development.

In the ensuing discussion, Costa Rica called for a global voluntary moratorium on the use of plastic resins. Venezuela suggested designing binding measures on marine biodiversity that go beyond current legislation, including on marine debris, and advancing a recommendation for the UNGA to possibly create hard law on marine debris.

Rob Kaplan, Co-Founder and Managing Director, Closed Loop Fund (CLF), presented on “scaling recycling through zero-interest loans to cities and investments in waste.” He explained that CLF views recyclable waste as a resource, and invests in models that remove barriers to effective and financially viable recycling systems. Highlighting that cities currently spend US\$5 billion annually on landfill waste disposal, he described CLF’s “pay for performance” loan structures, which allow municipalities to repay loans as cash flows are realized due to increased sales of recyclable commodities and decreased landfill fees due to greater recycling. He stated that the city of Memphis, Tennessee, US, has had annual savings of US\$1.5 million through systemic changes enabled by a CLF loan, and explained the CLF model’s innovative design enables scalability through leveraging “exponentially increasing” investments from municipalities interested in replicating the success of existing projects in their own locations.

In response to a question from Cameroon, he reported that plans to expand CLF projects outside the US are currently in the research phase, and hoped to expand to different regions, including Southeast Asia.

Elizabeth Hogan, Global Ghost Gear Initiative (GGGI), said 640,000 tons of fishing gear is lost or discarded in the oceans every year, and outlined its effect on marine animals, and marine ecosystem, economic and food security impacts. On next steps regarding ghost gear, she expressed hope that the draft FAO technical guidelines to be considered in July 2016 will endorse and promote gear marking, which can help reduce illegal, unreported and unregulated (IUU) fishing as well as ghost gear management (GGM). She also provided examples of how recovered nets can be recycled to make viable products such as socks, sunglasses and skateboards.

Responding to questions, Hogan said: GGM needs to be integrated into attempts to create a sustainable fisheries industry, with seafood producers requiring marking and gear management from their suppliers; countries can contribute to the GGGI by joining and providing data to fill knowledge gaps; and GGM should be part of regional fisheries work.

Jeff Wooster, Dow Chemical Company, stressed the need for innovation across product lifecycles from sourcing, manufacturing and distribution, to end-use consumers and post-use recovery, including collection, sorting, and recycling. He explained that innovation can drive a more circular economy through: eliminating waste from industrial processes; and reducing litter and marine debris by providing increased incentives and new tools to capture the value of existing materials. He underscored the need for multi-stakeholder partnerships and improving materials management, including through initiatives like “Stemming the Tide: Land-based strategies for plastic-free ocean” or “Operation Clean Sweep.”

Answering questions from the floor, Wooster explained that recycling light plastics for resale is often not very cost-efficient due to the low value of the recycled products. He called for finding new ways of recycling and combining materials, which can provide incentives for manufacturers and be scaled up.

Arturo Alfaro Medina, President, Institute for the Protection of the Environment (VIDA), Peru, and Peru’s National Coordinator of International Coastal Cleanup, said Peru is currently: sorting its marine debris; publicly ranking its most populated beaches to provide incentives for local governments for better management and cleaning; studying the causes of and solutions to existing waste; elaborating targeted public policies to address waste management and public awareness campaigns; and organizing training activities. He underscored the importance of regional cooperation to tackle marine debris and presented the regional programme for capacity building, involving Chile, Peru, Ecuador and Colombia.

In response to questions from participants, Medina said: Ecuador has created a tax on PET bottles, using the revenues to pay volunteers for waste collected by weight; Peru’s Ministry of Environment is financially rewarding municipalities that manage waste well; and PPPs are essential for funding cleanup projects and improving waste management.

Speaking on causes and solutions for addressing plastic litter, Andreas Merkl, CEO, Ocean Conservancy, reported that

56% of plastic in the ocean originates in five Asian countries. Suggesting that the low value of waste plastic means there is little incentive to recycle or reuse it, he called for fast-tracking work to increase the value of plastics, such as: developing innovative ways to treat used plastic such as “repolymerization” recycling techniques that enable plastic to be broken down into monomers and then reformulated into new plastic polymers; increasing the mandatory recyclable content of plastics; and increasing the percentage of plastics that are viable for recycling. He underscored the importance of designing adequate collection and separation systems within which these new technologies can fit once they are developed.

Responding to questions on funding technological developments, Merkl suggested a role for: voluntary industry contributions; local and national government subsidies; and revenues from recycling; but stated that developing a coherent pathway towards an integrated system of product design and waste treatment was the key issue.

Julia Reisser, The Ocean Cleanup, presented technologies to extract, prevent, and intercept plastic pollution, including: floating boom systems; manta trawl vessels engaged in surveys through mobile phone applications, including mega trawls; and balloon-camera deployments. She explained that The Ocean Cleanup is mostly an offshore engineering project aiming to find cost-effective solutions to marine debris, and plans to start the offshore cleanup operations in the Pacific Ocean by 2020. She noted that, as a first step, the foundation is launching a prototype 100-meter barrier for ocean cleanup in the Dutch North Sea waters on 22 June 2016. On ways to reduce marine debris, she proposed: improving product design; reducing fishing gear loss; transitioning to a circular economy; and implementing extended producer responsibility policies.

Responding to a concern that the technologies used by The Ocean Cleanup might also catch ocean phytoplankton, Reisser explained that the foundation is currently working on impact assessment with academia and the private sector, to further design mitigation strategies.

Camden Howitt, Sustainable Coastlines, presented on creative solutions for plastics pollution in the Pacific, underscoring his organization’s mission to enable people to look after the waterways through awareness raising, education and training. He highlighted six aspects of his organization’s approach: engaging the community, since “people protect what they love”; raising awareness of the problem, through holistic data collection for educational communication tools; scaling up, by training ambassadors to share the message and carry out the work on the ground; changing behavior, through local, relevant messaging; funding, through private sponsorship and volunteer tourists, and working together with open-source tools for sharing information.

In the subsequent discussions, he highlighted the importance of telling stories so people realize the impacts of littering; regional collaboration; and partnerships with industry to reduce litter and develop recycling schemes.

Debby Lee Cohen, Executive Director, Cafeteria Culture, said her organization started in 2009 as “Styrofoam Out of Schools,” a campaign seeking to eliminate the use of polystyrene trays in New York City schools. She explained that the campaign engaged Parent-Teacher Associations and students in the

campaign through innovative, hands-on environmental education resulting in a New York City ban on polystyrene packaging. The effort has since led to campaigns for charging for single-use plastic bags, promoting composting, and reducing marine litter.

Responding to a question about what is next for Cafeteria Culture, Cohen said they are educating students about waste sorting and developing a multimedia toolkit that can be used by students and teachers elsewhere, including in other countries, for campaigns on marine plastic pollution that start by tackling polystyrene.

Karen Raubenheimer, University of Wollongong, Australia, cautioned against trying to find a maritime solution to a land-based problem like MDPMs, instead proposing an approach for prevention at the source. She stressed the need to focus on preventing the plastic from reaching the ocean by global regulation of the raw material phase of the plastic industry, and called for a binding international agreement based on the Montreal Protocol model to prevent land-based sources of pollution. She explained the agreement should: aim to reduce the production of virgin polymers; focus on mechanical recycling and chemical extraction; impose trade restrictions on raw materials, based on their recyclability and chemical content; include extended producer responsibility provisions related to the stability of the recycling industry and PPPs; and consider the complexities of industrial sectors, such as construction, agriculture, medical and packaging.

In response to questions from delegates, Raubenheimer explained why existing international instruments cannot address land-based sources of marine pollution as effectively as an international legally binding agreement. She stated: a legally binding agreement on the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction (BBNJ), which is currently being negotiated under UNCLOS, would not deal with land-based sources; the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal might be an option, but to categorize plastic as a hazardous waste would be very difficult; and most regional agreements do not have binding provisions on pollution and have very limited capacity to regulate industry.

INTER-AGENCY COOPERATION AND COORDINATION

On Thursday morning, Miguel de Serpa Soares, Under-Secretary-General for Legal Affairs and UN Counsel, in his capacity as the UN-Oceans Focal Point, reported to ICP-17 on UN-Oceans' work as provided for by UNGA Resolution 68/70. He discussed the launch of the new UN-Oceans online inventory of mandates and activities of its members, which aims to assist in identifying opportunities for synergies and greater coherence, and in the implementation of SDG 14. He also reported on the results of the UN-Oceans meeting held on 13-15 June 2016, on the margins of ICP-17, which agreed on its 2016-2017 biennial work programme that includes, *inter alia*, identifying possible areas for collaboration and synergy and supporting the development of metadata for SDG target 14.c. He said the meeting also discussed MDPMs, agreeing they represent "a pervasive issue of global concern," and highlighted the challenges of increasing cross-sectoral cooperation and coordination.

Dimitry Gonchar, UNDOALOS, presented a demonstration of the new UN-Oceans online inventory.

In response to questions from Peru, UNDOALOS Director Goettsche-Wanli read the text of the proposed indicator for target 14.c, and explained it will be put forward to the Inter-Agency and Expert Group on SDG Indicators, while the UN Statistics Division will formulate a work plan for the development of metadata to be used. She also summarized the terms of reference for electing a UN-Oceans Chair.

Juliette Babb-Riley, Co-Chair of the *Ad Hoc* Working Group of the Whole of the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects (Regular Process), said the WOA-1 provides an important baseline for future assessments and identifies gaps in knowledge and capacity within various regions and subject areas.

South Africa, for the African Group, noted that WOA-1 contains a section on marine debris that is very well documented and stressed the need for synergies with other processes, such as the BBNJ negotiations.

Goettsche-Wanli provided delegates with updates on the Voluntary Trust Fund for the Regular Process, established by UNGA Resolution 64/71 of 4 December 2009 for assistance to the members of the Group of Experts from developing countries. She thanked Ireland, New Zealand, Portugal and the Republic of Korea for their contributions to the Fund in 2015, which provided assistance to experts to participate in two meetings at the cost of US\$45,000 per meeting. She reported that as of June 2016, the Fund has US\$30,000 available, with pledged contributions from the Netherlands, New Zealand, and the Republic of Korea, and invited other Member States and stakeholders to make further contributions.

PROCESS FOR THE SELECTION OF TOPICS AND PANELISTS SO AS TO FACILITATE THE WORK OF THE GENERAL ASSEMBLY

Co-Chair Nicholas Emiliou, Permanent Representative of Cyprus to the United Nations, introduced this item on Thursday. Peru called for continuing the current practice of simultaneously setting the theme for two ICP sessions ahead, so delegations have time to prepare for them and ensure the participation of experts in panels. The Co-Chairs noted the suggestion and closed the agenda item.

ISSUES THAT COULD BENEFIT FROM ATTENTION IN THE FUTURE WORK OF THE GENERAL ASSEMBLY ON OCEANS AND THE LAW OF THE SEA

On Thursday, Co-Chair Emiliou asked delegates for statements on this agenda item, referring delegates to the "Composite streamlined list of issues that could benefit from attention in the future work of the UNGA on oceans and the law of the sea" prepared by the Co-Chairs.

Trinidad and Tobago suggested adding harmful algae blooms, including Sargassum, to the issue list.

Canada, Norway, Peru, Venezuela and Fiji underscored their support for continuing the ICP. Venezuela pointed out it was particularly important to his country since it was open to all UN Member States and Venezuela is not a party to UNCLOS.

Peru, supported by Argentina and Venezuela, suggested all future ICP meetings review implementation of ocean-related SDGs and targets, particularly SDG 14. Brazil pointed out that

the High Level Political Forum on Sustainable Development (HLPF) is the centerpiece for reviewing SDG implementation. Fiji agreed the HLPF was the main body for reviewing the SDGs, but suggested annual ICP discussions on SDG 14 could be useful, too. Pointing out that all existing processes had been asked to contribute to the follow-up of the 2030 Agenda, Iceland also supported regular ICP discussions on SDG 14.

CONSIDERATION OF THE OUTCOME OF THE MEETING

CO-CHAIRS' SUMMARY OF DISCUSSIONS: On Friday morning, the Co-Chairs presented a summary document, providing an overview of ICP-17 discussions for each of the agenda items. The text specifically notes that, in the context of the upcoming review on the ICP's effectiveness and utility, to take place at the 71st UNGA session, several delegations expressed their support for the ICP continuation. These delegations, the text mentions: reiterated the importance of the ICP and its contribution to the annual review by the UNGA of oceans affairs and the law of the sea; called for the selection of ICP's future topics to integrate all the three pillars of sustainable development; noted the role the ICP could have in reviewing the effective implementation of the 2030 Agenda for Sustainable Development; and expressed support for ICP's interaction with other ongoing oceans-related processes, such as the Regular Process and other processes relating to the implementation of SDG 14.

On issues that could benefit from attention in UNGA's future work on oceans and the law of the seas, the document notes the addition of the issue of harmful algal blooms, including Sargassum, and further invites delegations to submit to the Secretariat any other issues that should be included in the list to be brought to UNGA's attention.

Specifically on the ICP's relation with the 2030 Agenda, the Co-Chairs' summary observes that: a number of delegations suggested that the ICP could provide an appropriate forum to review on a regular basis the implementation of SDG 14 and other ocean-related goals of the 2030 Agenda; some delegations recalled that the HLPF was the central body for the review and follow-up of the 2030 Agenda; and some delegations considered that the role of HLPF did not preclude existing processes to follow up on the implementation of the 2030 Agenda, so a discussion of the issue by the ICP would not undermine the role of the HLPF.

FEEDBACK ON THE CO-CHAIRS' SUMMARY:

Co-Chair Emiliou invited participants to review the Co-Chairs' summary that had been circulated, and provide feedback.

In the ensuing discussion, participants congratulated the Co-Chairs and the Secretariat for the comprehensiveness of the summary. Venezuela provided several general comments and underlined the need to: underscore the shared responsibility of states, the private sector, and users; regulate production, trade, and transportation to prevent debris, including plastic debris; clearly define marine debris in national legislation; make the domestic and industrial separation of solid waste compulsory; and design incentives to curb ghost fishing and marine debris.

Participants suggested then several amendments to the text. Canada said: ICP "could" have a role in reviewing the effective implementation of the 2030 Agenda but it "does not" currently

have one; and participants stressed the need to "consider the role of" the Basel Convention "with regard to waste" rather than stressing the need to "effectively implement" it. In a paragraph on the review of the effectiveness and utility of the ICP, she requested including a mention that the ICP is an "informal and unique" process that allows policy-makers to interact with scientists.

Fiji requested including a reference to the High-Level UN Conference to Support the Implementation of SDG 14. The Netherlands noted the importance of including in the document all the types of cleanups that address marine debris, not only beach cleanups. Venezuela suggested adding measures that address artisanal fisheries, including education.

Panelist Van den Dries proposed including the issue of waste management frameworks. Panelist Eriksson called for mentioning that the G7 identified its lead member countries to take measures for implementing the G7 Action Plan.

CLOSING PLENARY

Co-Chair Meza-Cuadra observed that ICP-17 had been very useful in providing an integrated vision of the problem, including the industrial viewpoints. He thanked delegates and panelists for their participation, thanking in particular Mayor Fernandez for her "inspiring intervention" on what local governments can do to address the problem of MDPMs.

In his closing remarks, Co-Chair Emiliou suggested that ICP would be an appropriate forum to review the implementation of SDG 14 and other related goals, in complement to the HLPF. He said it was very encouraging to hear of efforts to strengthen the circular plastic economy, and hoped that ICP-17 had raised awareness and understanding of the problem.

The Co-Chairs gavelled the meeting to a close at 12:44 pm.

A BRIEF ANALYSIS OF ICP-17

ICP-17 convened to address "marine debris, plastics and microplastics" (MDPMs) just nine months after the adoption of SDG target 14.1 on reducing marine pollution, including marine debris, and only three weeks after UNEA-2 mapped out a process for further international work on marine plastic debris and microplastics. During the week, delegates heard that: marine debris is so ubiquitous in the world's oceans, even remote portions, that the five ocean garbage "gyres" have reached enormous scales, in one case twice the size of Australia; over eight million metric tonnes of plastics enter our oceans every year; microplastics can be found in the digestive tracts of fish; and POPs are being transported over long distances by marine plastics to remote islands, where the plastics and POPs are found in seabird flesh.

More than anything else, ICP-17 demonstrated the need to be mindful of the gaps in knowledge, action, and policy and legal frameworks, while helping to build a case for taking immediate action. As such, it served to clarify the substantial work that lies ahead before MDPMs can be meaningfully addressed at the UN Conference to Support the Implementation of SDG 14 on oceans in Fiji in June 2017 and UNEA-3 at the end of 2017.

This brief analysis assesses how this meeting may influence future work on MDPMs and reflects on the current role of the ICP as a place to bring together diverse actors, break down silos,

and foster productive exchange of information and ideas on complex ocean issues that do not yet have a single institutional “home.”

TRASH ON THE WATER: TIME TO ADDRESS THE ISSUE?

The issue of marine debris is neither new nor “emerging.” In fact, ICP-6 first discussed this issue in 2005 and since then it has featured in every annual UNGA resolution on oceans and the law of the sea. The June 2012 UN Conference on Sustainable Development (Rio+20) saw the launch of the Global Partnership on Marine Litter and the Rio+20 outcome document, “The Future We Want,” committed all to take action by 2025 to achieve significant reductions in marine debris. In 2014 the first UN Environment Assembly adopted resolution 1/6 on marine plastic debris and microplastics. In 2015 the G7 Summit adopted an Action Plan to Combat Marine Litter, while the aforementioned 2025 target became enshrined in SDG target 14.1 when the UNGA adopted the 2030 Agenda on Sustainable Development in 2015. Last but not least, in 2016 the First World Ocean Assessment (WOA-1) devoted an entire chapter to marine debris and UNEA-2 adopted a resolution mapping out steps to be taken on marine plastic litter and microplastics by UNEA-3.

Despite such attention, the situation is not improving. The ICP was warned that if action is not forthcoming soon, by 2050 there will more plastic in the oceans than fish, by weight. “I knew it was bad, but not that it was *this* bad,” several delegates were overheard saying.

IT'S NOT WHAT I KNOW THAT SCARES ME, IT'S WHAT I DON'T KNOW

If there was a fitting subtitle to the ICP-17 theme it would likely be “mind the gap.” Panelist after panelist pointed out where important gaps in knowledge still exist in action, and policy and legal frameworks. Chief among these were: the lack of standardized, regularized and systematic global monitoring and assessment of the phenomenon, its sources and patterns; the lack of broader study of the impact of plastic ingestion on the health of marine animals and on marine biodiversity; and the dearth of studies of how the ingestion of plastics and microplastics by fish and shellfish may affect the food supply and human health.

However, several panelists, including Nancy Wallace of US-NOAA, suggested, and several delegations agreed during the discussions, that enough is already known to warrant urgent precautionary action.

WHITHER MDPMS?

During plenary, Mauritius voiced concern that minimal action has occurred in the eleven years since the ICP first discussed marine debris in 2005. He cautioned that in 2025 we may find we still have not done everything called for and miss achieving the SDG target 14.1. In the meantime, the MDPM problem steadily grows out of control.

Some argued in plenary and during the panel discussions that momentum is finally building behind the issue. They pointed to the G7 Action Plan, the UNEA-2 resolution, the marine litter provisions in the EU’s Marine Strategy Framework Directive, and several Regional Action Plans (RAPs) on Marine Litter as

evidence of such momentum. “The fact that the World Bank has created a trust fund targeting this issue and is here to advertise that fact is a sign of a higher profile for the issue,” noted a developed country delegate during a meeting break.

The ICP-17 panels, however, demonstrated the limits to the current patchwork approach. MARPOL Annex V can help with ship-based garbage, and regional fisheries management organizations can help address lost or abandoned gear (“ghost gear”), but since it is estimated that 80% of global marine litter is from land-based sources, such maritime solutions have only a limited impact. UNEP’s regional seas conventions might help, but so far only one has a binding RAP on marine debris. In fact, most do not have land-based source protocols, some large areas in Africa and South America do not have regional seas conventions, and a regional seas approach may not affect areas beyond national jurisdiction.

Karen Raubenheimer raised a few eyebrows when she suggested a novel proposal to form a global agreement regulating plastics modeled on the Montreal Protocol. She acknowledged, however, that this idea has its limitations, namely that the urgent regulatory action that led to the Montreal Protocol was driven by a concrete cost-benefit analysis of global impacts that does not yet exist for the issue of MDPMs. There is also the open question of where best to house such an agreement. Delegates recognized that MDPMs need a coordinated global response, but seemed to favor the idea of acting through existing international frameworks rather than creating a new standalone mechanism. Delegates were aware, however, of the limitations of existing frameworks to tackle the issue. UNCLOS, for example, has articles that might allow adding a protocol on MDPMs, but 16 countries, including the US, Turkey, Peru and Venezuela, are not parties.

THE CONSULTATIVE PROCESS IDENTIFIES GAPS, BUT HOW DO WE FILL THEM?

While this was not the original aim of ICP-17, many delegates welcomed the fact that ICP-17 has effectively “set the table” for UNEA-3, currently tentatively slated for December 2017. During UNEA-3, UNEP’s Executive Director will present an assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches to combat marine plastic litter and microplastics, and identify gaps and options for addressing them.

The road to UNEA-3 may have several stops along the way. The 71st session of the UNGA likely will update language on marine debris and plastic litter, with one option floated in UN corridors being a new provision on periodic reporting on what UN bodies and Member States are doing in this regard. The UN Conference on SDG 14 in Fiji in June 2017 is currently conceived to focus on forming new partnerships on each aspect of the SDG, including addressing MDPMs. Furthermore, the HLPF may consider SDG 14 at its July 2017 session, in which case MDPMs may be addressed there.

ENHANCING ICP VALUE ADDED

Over the course of the week, many delegations stated their appreciation for the added value of ICP-17 as a stock-taking exercise on MDPMs. “This is what ICP does well, bringing together diverse actors for in-depth discussions on

complex ocean issues that do not yet have a ‘home,’ advancing understanding and paving the way for discussion elsewhere on possible solutions,” stated one delegate during a panel discussion.

Some delegations privately expressed disappointment that attendance at ICP-17 was low and discussion often limited. Explanations offered for this varied, but all agreed that it had nothing to do with the importance most countries now place on the issue of MDPMs.

During plenary, several Latin American countries and SIDS suggested that annual ICP meetings could discuss SDG 14 implementation, and this sentiment was echoed by Co-Chair Emiliou in his closing statement. Although only Brazil and Russia publicly expressed skepticism of the idea in plenary, several developed countries also privately indicated wariness. Acknowledging that some countries may resist regular ICP discussion of SDG 14, one developing country delegate observed that this issue “will clearly be a point of contention in the oceans resolution negotiations in the UNGA this fall.”

However, as one proponent of the idea argued, regular ICP discussion of SDG 14 implementation might attract more participation in the forum. Since MDPMs are one of the issues covered under SDG 14, this would also allow MDPMs to be raised in future ICP sessions and keep pressure on the issue, at least until such time that UNEA or the UNGA decide on a permanent “home” for MDPMs.

UPCOMING MEETINGS

40th Annual Conference of the Center for Oceans Law and Policy: The 2016 Conference will be held under the theme, “Legal Order in the World’s Oceans: UN Convention on the Law of the Sea,” in cooperation with UNDOALOS. **dates:** 27-28 June 2016 **location:** UN Headquarters, New York **contact:** University of Virginia School of Law **phone:** +1-434-924-7441 **email:** colp@virginia.edu **www:** <http://www.virginia.edu/colp/annual-conference.html>

COFI 32: The 32nd meeting of the FAO Committee on Fisheries (COFI 32) will review, among other things, international fishery problems and examine possible solutions through national, FAO and intergovernmental programmes. It will also consider the draft technical guidelines on gear marking. **dates:** 11-15 July 2016 **location:** Rome, Italy **contact:** COFI Secretariat **email:** FAO-COFI@fao.org **www:** <http://www.fao.org/fishery/about/cofi/en>

High-Level Political Forum on Sustainable Development: The 2016 meeting of the HLPF is the first since the adoption of the 2030 Agenda and the SDGs. The session will include voluntary reviews of 22 countries and thematic reviews of progress on the SDGs, including cross-cutting issues, supported by reviews by the ECOSOC functional commissions and other intergovernmental bodies and forums. A three-day ministerial meeting of the Forum will take place on 18-20 July 2016. **dates:** 11-20 July 2016 **location:** UN Headquarters, New York **contact:** UN Division for Sustainable Development **email:** dsd@un.org **www:** <https://sustainabledevelopment.un.org/hlpf/2016>

22nd Annual Meeting of the International Seabed

Authority: During the 22nd annual meeting of the International Seabed Authority, representatives from Member States of the Authority will discuss the work of the Authority and its Secretariat. **dates:** 11-22 July 2016 **location:** Kingston, Jamaica **contact:** ISA Secretariat **phone:** +1-876-922-9105 **fax:** +1-876-922-0195 **email:** <https://www.isa.org.jm/contact-us> **www:** <https://www.isa.org.jm/sessions/22nd-session-2016>

Southeast Asia and Pacific Regional Fisheries Summit:

This Summit, part of The Economist Events’ World Ocean Initiative, will bring together government, industry, scientists and the financial sector to discuss fisheries reform across Southeast Asia and the Western Pacific. **dates:** 27-28 July 2016 **location:** Jakarta, Indonesia **contact:** The Economist **email:** asiaevents@economist.com **www:** <http://www.economist.com/events-conferences/asia/SEA-fisheries-2016>

IMCC4: The Society for Conservation Biology’s 4th International Marine Conservation Congress will bring together conservation professionals and students to develop new and powerful tools to further marine conservation science and policy. **dates:** 30 July - 3 August 2016 **location:** St. John’s, Newfoundland and Labrador, Canada **contact:** Lori Strong, Meeting Manager **email:** lstrong@burkinc.com **www:** <http://conbio.org/mini-sites/imcc-2016>

Bottom Fishing Workshop: This workshop will discuss implementation of paragraphs 113, 117 and 119 to 124 of General Assembly Resolution 64/72 and paragraphs 121, 126, 129, 130 and 132 to 134 of Resolution 66/68 on sustainable fisheries, addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks. **dates:** 1-2 August 2016 **location:** UN Headquarters, New York **contact:** UNDOALOS **phone:** +1-212-963-3962 **email:** doalos@un.org **www:** http://www.un.org/Depts/los/reference_files/calendar_of_meetings.htm

Informal Group on Household Wastes: Decision BC-12/13 called for the Informal Group on Household Waste to develop a workplan on ESM of household waste with a focus on the needs of developing countries and countries with economies in transition. The Group is expected to draft a concept note, terms of reference and 2018-2019 work programme for a household wastes partnership. **dates:** 2-4 August 2016 **location:** Montevideo, Uruguay **contact:** Matthias Kern, BRS Secretariat **phone:** +41-22-917-8767 **email:** matthias.kern@brsmeas.org **www:** <http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/HouseholdWaste/Meetings/1stMeetingMontevideo,UruguayAug2016/tabid/5158/Default.aspx>

Seventh Meeting of the Regular Process for World Ocean

Assessment: The seventh Meeting of the *Ad Hoc* Working Group of the Whole on the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects (World Ocean Assessment), aims to improve understanding of oceans and to develop a global mechanism for delivering science-based information to decision makers and the public. **dates:** 3- 9 August 2016 **location:** UN Headquarters, New York **contact:** UNDOALOS **phone:** +1-212-963-3962 **email:** doalos@un.org **www:** http://www.un.org/Depts/los/global_reporting/global_reporting.htm

BBNJ PrepCom 2: The second meeting of the Preparatory Committee for an international legally binding instrument on marine biodiversity in areas beyond national jurisdiction (BBNJ) will address marine genetic resources, area-based management tools, environmental impact assessments, capacity building, transfer of marine technology and crosscutting issues. **dates:** 26 August - 9 September 2016 **location:** UN Headquarters, New York **contact:** UNDOALOS **phone:** +1-212-963-3962 **fax:** +1-212-963-5847 **email:** doalos@un.org **www:** <http://www.un.org/depts/los/biodiversity/prepcom.htm>

2016 Our Ocean Conference: The 2016 Our Ocean conference will focus on key current ocean issues: marine protected areas, sustainable fisheries, marine pollution, and climate-related impacts on the ocean. **dates:** 15-16 September 2016 **location:** Washington D.C., US **contact:** US Department of State Bureau of Oceans and International Environmental and Scientific Affairs **email:** OurOcean2016@state.gov **www:** <http://ourocean2016.org>

Eleventh International Conference on Waste Management and Technology (ICWMT 11): Organized by the Basel Convention Regional Centre (BCRC) for Asia and the Pacific, and hosted by UNEP, the Stockholm Convention Regional Centre for Capacity-Building and the Transfer of Technology in Asia and the Pacific, China's Ministry of Environmental Protection and others, ICWMT 11 participants will discuss the theme of "Green Low-carbon Circular Development," including such issues as POPs waste management and disposal, management and disposal of wastes containing heavy metals, hazardous waste management, technology transfer, and circular economy design and implementation. **dates:** 21-24 October 2016 **location:** Beijing, China **contact:** Shi Xiong, BCRC for Asia and the Pacific **phone:** +86-10-62794351 **fax:** +86-10-62772048 **email:** icwmt@tsinghua.edu.cn **www:** <http://2016.icwmt.org/ICWMT2016/indexen.asp?id=3099>

Seventh Regional 3R Forum in Asia and the Pacific: Organized and co-hosted by the UN Centre for Regional Development (UNCRD), the Forum is intended to serve as a framework for 3R (reduce, reuse, recycle) policy dialogue among high-level government representatives from Asia-Pacific countries, city mayors and administrators, and other professionals. The forum will focus on technical assistance for country projects, information sharing and networking for the promotion of 3R policies in Asia and the Pacific. **dates:** 2-4 November 2016 **location:** Adelaide, Australia **contact:** UNCRD Secretariat **phone:** +81-52-561-9377 **fax:** +81-52-561-9375 **email:** rep@uncrd.or.jp **www:** <http://www.uncrd.or.jp>

Thirteenth Meeting of the Conference of the Parties (COP) to the Basel Convention, the Eighth Meeting of the COP to the Rotterdam Convention and the Eighth Meeting of the COP to the Stockholm Convention: These meetings will convene back-to-back in 2017 to discuss issues under each Convention, and joint issues shared among the Conventions. **dates:** 23 April - 4 May 2017 **location:** Geneva, Switzerland **contact:** BRS Secretariat **phone:** +41-22-917-8729 **fax:** +41-22-917-8098 **email:** brs@unep.org **www:** <http://www.basel.int>, <http://www.pic.int>, <http://www.pops.int>

High-Level UN Conference to Support the Implementation of SDG 14: This high-level UN Conference, co-hosted by the governments of Fiji and Sweden, will coincide with World Oceans Day. The theme of the conference is "Protect our oceans, protect our future: Partnering for the implementation of Sustainable Development Goal 14." **dates:** 5-9 June 2017 **location:** Nadi, Fiji **contact:** Permanent Missions of Fiji and Sweden **phone:** +1-212-687-4130 (Fiji); +1-212-583-2500 (Sweden) **www:** <https://sustainabledevelopment.un.org/?page=vi&nr=1863&type=13&menu=1634>

ICP-18: The dates and topic for the next meeting of the ICP will be determined by the 71st session of the UN General Assembly in its annual debate on "Oceans and the law of the sea," should it decide to extend the ICP's mandate. **dates:** TBD **location:** UN Headquarters, New York **contact:** UNDOALOS **phone:** +1-212-963-3962 **email:** doalos@un.org **www:** http://www.un.org/depts/los/consultative_process/consultative_process.htm

For additional meetings, see <http://chemicals-l.iisd.org/> and <http://nr.iisd.org/>

GLOSSARY

BBNJ	Biodiversity in areas beyond national jurisdiction
DESA	UN Department of Economic and Social Affairs
FAD	Fish aggregating device
FAO	Food and Agriculture Organization of the UN
G7	Group of Seven
GESAMP	Group of Experts on the Scientific Aspects of Marine Environmental Protection
HLPF	High-Level Political Forum on Sustainable Development
IAC	Inter-American Sea Turtle Convention
ICP	UN Open-ended Informal Consultative Process on Oceans and the Law of the Sea
IMO	International Maritime Organization
MARPOL	International Convention for the Prevention of Pollution from Ships
MDPMs	Marine debris, plastics and microplastics
PCBs	Polychlorinated biphenyls
POPs	Persistent organic pollutants
PPPs	Public-private partnerships
PRFs	Port reception facilities
SDG 14	Conserve and Sustainably Use the Oceans, Seas and Marine Resources for Sustainable Development
SDGs	Sustainable Development Goals
SIDS	Small island developing states
UNCLOS	UN Convention on the Law of the Sea
UNDOALOS	UN Division for Ocean Affairs and the Law of the Sea
UNGA	UN General Assembly
UNEA	United Nations Environment Assembly of UNEP
UNEP	United Nations Environment Programme
WOA	World Ocean Assessment