

Measures to address marine plastic leakage through a circular economy approach



Tuesday 8 September 2020
Meeting Report

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Pdf ISBN 978-92-76-28609-7 doi:10.2779/036559 KH-02-21-013-EN-N

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EU Online Workshop

Measures to address marine plastic leakage through a circular economy approach

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Meeting Report

Executive Summary

This report provides a summary of a half-day online workshop, organised by the European Union (EU) to explore different aspects related to the circular economy and its opportunities for reducing the leakage of plastics in the ocean. The workshop contributed to Saudi Arabia's 2020 Presidency of the G20 on safeguarding the Planet, in particular the marine environment, and followed up on the G20 Action Plan on Marine Litter (2017) and the G20 Implementation Framework for Actions on Marine Plastic Litter (2019). The workshop was divided into three sessions.

The **first session** was on 'Addressing the sources of plastic waste through circular economy approaches'. The first presentation of the session highlighted the necessity of adopting a circular economy approach, covering both upstream and downstream aspects. The following two presentations covered the application of the circular approach in Indonesia and the European Union, within the context of existing and proposed legislation. The remaining presentations in the session covered more specific aspects. Examples were provided of a range of economic instruments, such as extended producer responsibility (EPR) schemes that have been effective at reducing plastic leakage. It was argued that such instruments can provide an alternative or complementary means to encourage behaviour change and may be more successful than legislation alone. The impact of Abandoned Lost or otherwise Discarded Fishing Gear (ALDFG) was the topic of the next presentation. ALDFG has the greatest social, economic and environmental impact of any category of litter, and a range of measures, such as improved gear marking and port reception facilities, are being developed to minimise this. The final talk concerned plastic waste associated with the Covid-19 pandemic, due to increased demand in both the medical/care and retail sectors. This has caused an unprecedented shock to waste management systems even in advanced economies.

Session 2 addressed the 'The global dimension'. The three presentations covered examples of international and regional governance frameworks. The MARPOL Annex V of the MARPOL Convention, administered by the International Maritime Organisation (IMO), bans the disposal of plastic waste from any vessel. An Action Plan against marine litter was adopted in 2018, containing specific measures to support implementation of Annex V, including training and awareness-raising. A plastic waste amendment was introduced into the Basel Convention in 2019, and the Plastic Waste Partnership was launched in the same year. The main aim is to encourage environmentally sound management of plastic waste at all geographic scales. The final presentation described the framework of regional governance provided by regional seas conventions. The case of HELCOM, covering the Baltic Sea, was used as an example of an effective mechanism for regional cooperation in monitoring marine litter and developing appropriate reduction measures.



Session 3 took the form of a panel discussion, with five panellists from diverse backgrounds representing governance, academia and the non-profit sector in Africa, Asia, Europe and North America. The panel was asked to consider two questions. The first covered the G20 Action Plan and the G20 Implementation Framework, and what role this might play for both G20 and non-G20 countries. There was general agreement that the approach was productive and that non-G20 members would benefit greatly from following this approach. This second question concerned whether a new international framework was required to prevent the leakage of plastic waste into the ocean. There was general agreement that aspects of the current framework were helpful but that gaps existed that need to be addressed. Some panellists were supportive of a new international framework but there was an acknowledgement that a multi-stakeholder approach, across the value chain, would be required.

A key **conclusion** from the workshop was that the G20 is at the centre of much of the activity on plastic waste reduction at regional and global scale, and that the G20 actions are also relevant to non-G20 members. The importance of a lifecycle approach and of designing out waste, as well as of exploiting the circular economy model and tools were underlined. There is scope and a need, over and above what the G20 has already done, to do more to address marine plastic litter upstream. The EU hopes more progress can be made at the fifth meeting of the United Nations Environment Assembly (UNEA-5). The Covid-19 pandemic has thrown up great challenges, dominating much of the current G20 Presidency of Saudi Arabia, but there is an opportunity to 'build back better' in the post-pandemic world. Both the EU and the Government of Saudi Arabia look forward to continuing their collaboration under the coming G20 Presidencies of Italy and Indonesia.

Background

The G20 Workshop on 'Scientific Knowledge and Innovative Solutions for Marine Plastic Litter'¹ was co-organised by the European Union, Japan and the United States on 8 October 2019 in Tokyo, back-to-back with the G20 Resource Efficiency Dialogue (9-10 October 2019)², in support of the G20 Action Plan on Marine Litter and the G20 Implementation Framework for Actions on Marine Plastic Litter³.

As a follow-up to the workshop and as a contribution to Saudi Arabia's Presidency of the G20 for safeguarding the Planet, in particular the marine environment, the EU organised an online workshop on 'Measures to address marine plastic leakage through a circular economy approach' on Tuesday 8 September 2020. The workshop attracted approximately 100 participants and the presentations are available online⁴. The workshop followed Japan's online workshop on 7 September 2020 on 'Harmonized monitoring and data compilation of marine plastic litter'⁵.

The EU approach to plastic production and use is based on the Plastic Strategy in a Circular Economy⁶ adopted by the European Commission in January 2018. The Strategy is the first EU-wide policy framework adopting a material-specific life-cycle approach integrating design, use, reuse and recycling. It also aims at increasing the uptake of recycled content, supporting efforts for decarbonisation and creating additional opportunities for growth. Marine plastic litter is addressed through the Marine Strategy Framework Directive⁷, which requires the achievement of good environmental status for EU waters, the Port Reception Facilities Directive⁸, aiming to reduce the discharges from ship generated

¹ [https://ec.europa.eu/environment/international_issues/pdf/File_2_-_G20_Marine_Plastic_Litter_Workshop_\(Tokyo_8_October_2019\)_-Report.pdf](https://ec.europa.eu/environment/international_issues/pdf/File_2_-_G20_Marine_Plastic_Litter_Workshop_(Tokyo_8_October_2019)_-Report.pdf).

² <https://g20mpl.org/archives/612>.

³ https://ec.europa.eu/environment/marine/good-environmental-status/descriptor-10/pdf/G20_Implementation_Framework_for_Actions_on_Marine_Plastic_Litter.pdf.

⁴ https://ec.europa.eu/environment/international_issues/relations_g20_events_en.htm.

⁵ <https://g20mpl.org/archives/893>.

⁶ https://ec.europa.eu/environment/waste/plastic_waste.htm.

⁷ https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm.

⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0883&rid=10>.



waste, including from fishing vessels, and the Directive on the reduction of the impact of certain plastic products on the environment⁹, targeting the top 10 single-use plastic products most often found on Europe's beaches and seas as well as fishing gear containing plastics. Finally, the European Commission has started preparatory work to restrict microplastics intentionally added to products¹⁰, e.g. in cosmetics or detergents, as well as to reduce releases of microplastics from other sources¹¹, such as tyres, textiles and pre-production plastic pellets.

Opening Session

Introduction, opening statements and housekeeping

Chair: Ms Astrid Schomaker, Director, Global Sustainable Development, Directorate-General for Environment, European Commission



Ms Schomaker welcomed participants to the virtual workshop. She explained the rationale of the workshop in the context of commitments made by Japan, the USA and the EU within the framework of the G20 marine litter action plan, agreed in 2017 under the Presidency of Germany, and the Implementation Framework for Actions of Marine Plastic Litter, agreed during the Presidency of Japan in 2019. These commitments continued under the Presidency of Saudi Arabia in 2020, noting that Saudi Arabia were to hold the G20 Environment Ministerial meeting a few days after the workshop (on 16 September 2020). The original intention had been to hold a more comprehensive face-to-face meeting, dealing with sources, pathways and effects of marine litter. This had to be revised once the restrictions imposed by the Covid-19 pandemic intervened, and the decision was made to focus on reducing plastic leakage through the application of the circular economy approach.

Ms Schomaker reminded the audience of the need to balance the advantages and disadvantages of plastics, citing their utility during the current pandemic. However, there was justified concern over the continuing increase in production, accompanied by increased waste generation and carbon emissions, under a business-as-usual scenario.



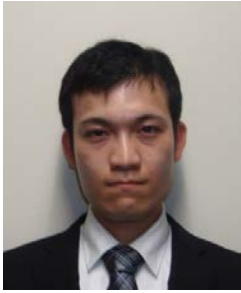
Mr Osama I. Faqeeha (Deputy Minister for Environment, Ministry of Environment, Water and Agriculture, Kingdom of Saudi Arabia) started by thanking the EU for organising the workshop and acknowledged the leadership on plastic issues shown by Japan during their 2019 Presidency. In addition, he pointed out the participation in the workshop of key experts and organisations from many parts of the world, illustrating the recognition that a global approach was necessary, to address this global problem. He reminded the audience of the significant impacts of marine litter on coastal communities, such as in the fisheries and tourism sectors, as well as the environment. The theme of the Saudi Arabian G20 Presidency was 'Realizing the Opportunities of the 21st Century for All'. The programme was composed of three pillars: 'Empowering People', 'Safeguarding the Planet' and 'Shaping New Frontiers'. The first G20 environment ministerial was taking place under the pillar 'Safeguarding the Planet', aimed at safeguarding the environment for future generations. The health of the ocean was integral to achieving this aim. In addition to marine litter, the Saudi Arabia Presidency was focussed on two other environmental challenges, working closely with other G20 countries and other stakeholders: land degradation and loss of biodiversity; and, protection of coral reefs. Mr Faqeeha stated that this workshop, together with the monitoring workshop held the previous day, represented an important milestone in continuing the dialogue of strengthening cooperation to address marine litter.

⁹ <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

¹⁰ <https://echa.europa.eu/hot-topics/microplastics>.

¹¹ https://ec.europa.eu/info/research-and-innovation/strategy/support-policy-making/scientific-support-eu-policies/group-chief-scientific-advisors/environmental-and-health-risks-microplastic-pollution_en.

Recap of Japan's workshop on 'Harmonized monitoring and data compilation of marine plastic litter' (7 September 2020)



Mr Tatsuya Abe (Deputy Director, Office of Marine Environment, Ministry of the Environment, Japan) provided a summary of the discussions of the workshop on 'Harmonized monitoring and data compilation of marine plastic litter' that had taken place the previous day, the 7th September. He started by thanking Saudi Arabia for continuing the marine plastic litter theme under its Presidency. He provided the context of the workshop, with harmonized monitoring being a key component of the Implementation Framework. The Osaka Blue Ocean Vision, agreed at the 2019 G20 Osaka Summit, had received the support of over 80 countries so far. Mr Abe pointed out the contribution this approach was making to achieving several of the SDG targets, including: 12.1, 12.4 12.5, 14.1 and 14.2.

Mr Abe described the structure and content of the workshop and reported on progress in creating a Global Network Hub for the sharing and display of monitoring data. He concluded by reiterating the importance of data sharing and the need to promote the harmonisation of monitoring methods. A report of the meeting and copies of the workshop presentations are available online¹².

Session 1 – Addressing the sources of plastic waste through circular economy approaches

Chair: Ms Emmanuelle Maire, Sustainable Production, Products and Consumption, Directorate-General for Environment, European Commission



Ms Maire explained that the intention of this session was to explore the contribution of circular economy approaches to preventive measures against the background of the G20 Marine Litter Action Plan and the Implementation Framework for Actions on Marine Plastic Litter, as well as relevant UNEA resolutions. The session would cover advances in product and material design, resource efficiency measures, regulation and market-based instruments. In addition, there would be an opportunity to consider the specific challenges posed by the management of plastic waste resulting from the Covid-19 pandemic.

The need for a comprehensive circular economy approach to address plastic pollution at its source



Mr Sander Defruyt (Lead, New Plastics Economy, Ellen MacArthur Foundation) said that the Ellen MacArthur Foundation focused on solutions. He had three key messages to deliver:

- i) The circular economy approach was the only solution to address the problem at source. It was not sufficient to improve waste management. Similarly, resource efficiency was very useful but could not in itself provide the ultimate solution, as it still maintained a linear economy.
- ii) There is a need for upstream solutions, calling for a re-think of current business models, eliminating waste by design. This approach has been endorsed by many businesses, governments and investors, and implemented locally through 'Plastic Pacts'.
- iii) Recycling will continue to be needed as a downstream solution. At present, it is often cheaper to use virgin oil than recycled plastics and to counter this would require structural gaps in recycling economics to be eliminated.

¹² <https://g20mpl.org/archives/893>.



He cited the recent 'Breaking the Plastic Wave' report¹³, written jointly by Pew Charitable Trusts and SYSTEMIQ, for providing a comprehensive rationale for adopting such an approach. It had been estimated that a comprehensive improved recycling system would cost around of USD30 billion annually. He argued that a combination of approaches was needed, including improved regulatory mechanisms and Extended Producer Responsibility (EPR) schemes, and that this approach was being embraced by an increasing number of businesses.

Indonesia's approaches in addressing marine plastic litter through circularity actions



Mr Novrizal Tahar (Director of Waste Management, Ministry of Environment, Indonesia) was unable to give his presentation on the role of the circular approach to address plastic waste in Indonesia. However, his presentation has been made available on the meeting website.

Instead, Mr Noer Wardoyo (Ministry of Environment, Indonesia) was invited to make an intervention on Mr Tahar's behalf. He explained that Indonesia updated its circular economy national action plan on plastic debris in May, covering the period 2020-2025. An English version is available¹⁴. He pointed out the importance of adopting a circular economy approach to meet obligations under SDG 12 on Sustainable Consumption and Production and informed the meeting that a policy document has been prepared and will be launched soon, covering the period 2020-2030. The circular economy, (including plastics management), will be included in the framework, which is intended to integrate initiatives on low-carbon energy and changing behaviours, in both business and society. Mr Wardoyo concluded by saying that Indonesia would like to share their SDG12 policy initiative with the wider international community on a future occasion.

EU legislative instruments to address marine plastic litter



Mr Michel Sponar (Deputy Head of Unit, Marine Environment and Water Industry, Directorate-General for Environment, European Commission) provided a summary of relevant EU legislation. A key element of the strategy is the European Green Deal¹⁵, intended to allow the EU to move progressively towards a carbon neutral society. Some measures have already been adopted, including the Circular Economy Action Plan and the Plastics Strategy¹⁶. Other measures are under development, such as a zero-pollution action plan, due for adoption in 2021. A key principle is prevention of waste generation. The challenge is to transform this ambition into concrete action. Within this overall framework are several specific instruments such as the Single Use Plastic Products Directive¹⁷, which focuses on the most common items found on European beaches (the top 10 types of items represent 43% of the marine litter recorded, fishing gear accounts for another 27%, making 70% in total). The Plastics Strategy contains a number of objectives, for example: by 2030, all plastic packaging should be recyclable; and the proportion of plastics recycled should increase to 50%. The EU has also a collection objective of 90% by 2029 for plastic beverage bottles recycled should be increased to 90%. Other important legislation includes the Marine Strategy Framework Directive¹⁸. This includes targets for Good Environmental Status in relation to plastics (Descriptor 10) and actions to promote the harmonisation of monitoring. The Waste Framework Directive has been extended to include marine

¹³ https://www.pewtrusts.org/-/media/assets/2020/07/breakingtheplasticwave_report.pdf.

¹⁴ https://globalplasticaction.org/wp-content/uploads/NPAP-Indonesia-Multistakeholder-Action-Plan_April-2020.pdf.

¹⁵ https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en.

¹⁶ https://ec.europa.eu/environment/waste/plastic_waste.htm

¹⁷ Directive on the reduction of the impact of certain plastic products on the environment <https://eur-lex.europa.eu/eli/dir/2019/904/oj>

¹⁸ https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm.



plastic waste in the national waste management plans. In addition, plastic leakage in the aquaculture sector is covered by a certification scheme and recommended Best Available Techniques. The shipping sector is covered by the implementation of MARPOL regarding port reception facilities (EU Port Reception Facilities Directive), and an extension to include fishing vessels and recreational craft. The strategy for dealing with microplastics includes: banning the intentional inclusion of microplastics in products; banning the use of oxo-degradable plastics; adopting a common European approach to reducing particle emission from vehicle tyres and textiles; developing an audit and certification scheme for pellets used in industry; and, strengthening the role of producer responsibility. Concerning marine plastic litter, measures are being introduced to address some of the most common items of marine litter, such as a ban on *plastic* cotton buds. For items that are difficult to ban, such as packaging, the EU is introducing EPR schemes such that the producer has to pay for the collection and recycling. This approach has been extended to cover the cost of clean-up and for awareness-raising of the public of other items like cigarette butts for instance. Finally, the Urban Waste Water Treatment Directive¹⁹ is under review with a focus on the management of microplastics, to make sure that microplastics are captured in the treatment plants and reduce the quantity incorporated in the sludge and released on farmland.

Q&A Session

Q1. One participant asked about microplastics and dealing with the uncertainty over the effectiveness of new measures.

Mr Defruyt stressed the need to test new approaches, both for technological development and for policy development, and then analyse their effectiveness and share this information globally. He referred to the possibility of agreeing on a new binding treaty under UNEA and that one element could be an obligation to share good practices.

Mr Sponar responded that an impact assessment has to be carried out prior to bringing new measures in EU legislation. One of the challenges being to make sure that adequate data and information is collected to provide evidence on the effectiveness of the proposed measures.

Q2. Another participant raised the issue of plastics as a major driver of oil production.

Mr Defruyt responded that there was a contrast with certain brands pushing non-plastic alternatives, and a few committing to a circular economy approach, while some energy companies were contending that oil demand would be maintained by demand for plastics – to avoid the potential of having assets.

Q3. Mr Sponar was asked what the EU planned to do beyond seeking voluntary agreements regarding intentionally added microplastics.

Mr Sponar referred to proposals under the Plastics Strategy and reiterated the experimental nature of some of the potential measures. Voluntary arrangements can be useful but may have their limitations, meaning that legislation might be necessary. He also pointed out the difficulty with harmonising measuring methods but stated that this is solvable and should not stop legislation.

¹⁹ https://ec.europa.eu/environment/water/water-urbanwaste/index_en.html.



Extended Producer Responsibility, Deposit Return Schemes and other market-based instruments



Mr Peter Börkey (Organization for Economic Cooperation and Development, - OECD) argued that market-based instruments (MBIs) can provide a very useful contribution in reducing plastic waste generation by: increasing material efficiency, creating slower material loops and closing material loops. The OECD has produced a policy toolkit of options. He maintained that MBIs generally are preferable to legislative instruments as they can produce an income stream and promote innovation. However, where toxicity is concerned, legislation may be needed. One example of an effective MBI is implementing taxes of single use plastics, best seen on plastic bags, citing the 2018 UNEP report 'Single-use Plastics – a Roadmap for Sustainability'²⁰. OECD is preparing a report on the effectiveness of this measure

and corresponding policy guidance. The adoption of EPR schemes has increased significantly with over 73% of the population covered by EPR for packaging in OECD countries, contrasting with 13% worldwide. Take-back schemes for packaging are common in Europe and Australia while beverage container deposit schemes are more prevalent in the USA and Canada. There is a need to expand existing schemes to cover all packaging and to increase the geographic coverage beyond the OECD, as well as applying EPR of such schemes and extend them to other sectors that are important sources of ocean plastics such as fisheries, agriculture and tyre manufacturers.

Addressing abandoned, lost or otherwise discarded fishing gear and their impacts



Ms Ingrid Giskes (Director of the Global Ghost Gear Initiative (GGGI), Ocean Conservancy) focused on the problem of Abandoned Lost or otherwise Discarded Fishing Gear (ALDFG), also called 'ghost gear'. It has the greatest impact (ecological, social and economic) of any category of litter. ALDFG results due to both direct and indirect causes. Most causes are direct, resulting from accidental loss. Fishing gear is expensive and fishers, in general, do not want to lose it. However, indirect losses are often linked to Illegal, Unreported and Unregulated (IUU) fishing²¹, with gear being deliberately discarded to avoid detection when intercepted, as well as boat operators being unable to land old gear. The term

'ghost fishing' refers to the phenomenon that gear may remain effective at catching fish even after loss. This is most common with pots and fish traps, gillnets and Fish Aggregation Devices (FADs). It has been estimated that between 5 – 30% of harvestable stocks are lost in this way, depending on the fishery. This represents a substantial loss of income and threatens food security. Published data of the estimated quantities of ALDFG lost each year date back to 1975, but a new study will be published by FAO and IMO through GESAMP Working Group 43 in early 2021. In addition to MARPOL Annex V²², FAO has introduced a number of instruments of which the voluntary guidelines for the marking of fishing gear is probably the most important. The GGGI launched the Best Practise Framework for the Management of Fishing Gear ([BPF](#)) in 2017 providing detailed guidance to prevent, mitigate and remediate gear loss. Ms Giskes explained that the GGGI²³ was a global initiative, bringing together many governance bodies, industry partners, academia and not-for-profit organisations. It has produced a number of training tools and knowledge products, has undertaken more than 17 projects – for example gillnet marking in Indonesia, and hosts a global [data portal](#) with the largest ghost gear dataset in the world.

²⁰ https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf?isAllowed=y&sequence=1.

²¹ <http://www.fao.org/iuu-fishing/en/>.

²² MARPOL Annex V seeks to eliminate garbage being discharged into the sea from ships. More information is available at <http://www.imo.org/en/OurWork/Environment/PollutionPrevention/Garbage/Pages/Default.aspx>

²³ <https://www.ghostgear.org/>



Waste management during a pandemic – leakage of Covid-19 related plastic litter to the environment



Mr Mushtaq Ahmed Memon (Regional Coordinator for Resource Efficiency, Asia Pacific Regional Office, United Nations Environment Programme (UNEP), Bangkok) described UNEP's response to the Covid-19 pandemic²⁴. He explained how the pandemic had resulted in a significant increase in the prevalence of single-use plastics in waste streams. A large part of the increase was occurring in medical settings related to medical interventions and the need for Personal Protective Equipment (PPE). This included face shields (PP), plastic gowns (LDPE), vinyl gloves (PVC), disposable bags, tubes and masks. Another component was PPE used in the care sector and by the general public.

A third significant contribution came from packaging as footfall in shops and food outlets decreased to be replaced by a surge in home deliveries of groceries and other forms of e-commerce, and an increase in 'take-away' meals from food outlets. This has been accompanied by a decrease in recycling, partly due to concerns about contamination. This shock to the system was set within the context of UNEP's support for 'Sustainable Lifestyles for Plastics', referring to potential policy actions set out in a 2015 Switch Asia report²⁵. The focus is on: awareness raising; providing guidance and training; and promoting low carbon lifestyles. Such lifestyle changes can be encouraged by supporting entrepreneurship, exemplified by the Asia Pacific Low Carbon Lifestyles Challenge²⁶. UNEP is working with the Asian Institute of Technology on a range of issues related to the use of plastics during the Covid-19 pandemic, including more detailed data analysis, identifying research gaps and proposing solutions and good practice. The aim was to achieve a producer-consumer interactive platform, to improve quality of life in the 'new-normal' of the pandemic and create a win-win for pandemic-related and post-pandemic plastic.

Q&A Session

Q4 Mr Memon was asked about evidence of the longer-term impact of pandemic-related waste.

Mr Memon responded that UNEP was aware of reports in the media and on social media of increases in plastic litter during the pandemic but wanted to look at the evidence in more detail. For this reason, UNEP teamed up with the Asian Institute of Technology to carry out a detailed analysis that would help to answer this question.

Q5. Mr Börkey was asked about the use of alternatives to plastics. It was pointed out that there had been examples of substituting alternatives to plastic bags without conducting an adequate Life Cycle Assessment (LCA), where the impact was displaced elsewhere. A shift to greater re-use of plastics could be more beneficial. Were there examples of where alternatives give a better LCA result?

Mr Börkey agreed that this was an important challenge, particularly when measures were targeted at particular single-use plastic items. It needs a lot of information about the markets and intended outcomes to bring about changes in consumer behaviour, for example, without incurring unwanted effects. A good example of effecting change was Ireland, with the introduction of the plastic bag tax.

²⁴ <https://www.unenvironment.org/covid-19>

²⁵ https://www.iges.or.jp/en/publication_documents/pub/policyreport/en/5349/SC-Guide-For-Policymakers%28low-resolution%29.pdf

²⁶ <https://www.unenvironment.org/regions/asia-and-pacific/asia-pacific-low-carbon-lifestyles-challenge>



Q6. Ms Giskes was asked about the use of a deposit refund scheme for fishing gear as an effective way of creating incentives for fishers to pick up lost gear that belonged to others.

Ms Giskes gave examples of successful schemes for encouraging fishers not to dispose of old or unwanted gear. This included supplying materials for the production of new goods from retrieved gear, giving an additional income stream.

Session 2 – The global dimension

Chair: Mr Hugo Maria Schally, Head of Unit, Multilateral Environmental Cooperation, Directorate-General for Environment, European Commission



Mr Schally welcomed everyone to the second session. He explained that the session would provide an opportunity to hear more about some of the existing international instruments designed to reduce the leakage of plastics into the ocean and explore how G20 countries can contribute.

IMO Action Plan against marine litter



Mr Loukas Kontogiannis (Head Marine Pollution, Subdivision for Protective Measure, International Maritime Organisation (IMO)) outlined the legislative background to the IMO Action Plan against marine litter, in particular the provision under Annex V of the MARPOL Convention²⁷. Annex V has been in force since December 1988 and has been subject to a number of amendments. There are 153 Parties to the Annex, covering 99% of world tonnage. It contains a complete ban on the disposal of all forms of plastic, including fishing gear. It includes obligations for flag states, port states (inspection, port reception facilities) and coastal states (establishing sanctions for violations, surveillance at sea). The

Action Plan was adopted in October 2018²⁸. It is intended to enhance existing measures and improve awareness on boats and contains specific measures to reduce the loss of fishing gear. Measures include improved gear marking, training and awareness-raising (in multiple languages), and incentives to retrieve derelict gear.

Basel Convention – Plastics Waste Partnership



Ms Susan Wingfield (Secretariat of the Basel, Rotterdam and Stockholm Conventions, United Nations Environment Programme, Geneva) explained that a plastic waste amendment (adopted in decision BC-14/12) was introduced to the Basel Convention (BC) at COP14 in April-May 2019, effective as of 1st January 2021, detailed in three annexes. The amendment widens the scope of plastics covered by the Prior Informed Consent (PIC) procedure. The PIC is designed to control the transboundary movement of hazardous and other waste. Additionally, the Plastic Waste Partnership (PWP) under the Basel Convention (established by its decision BC 14/13) was launched in November

²⁷ <http://www.imo.org/en/OurWork/Environment/PollutionPrevention/Garbage/Pages/Default.aspx>

²⁸ <http://www.imo.org/en/MediaCentre/PressBriefings/Pages/20-marinelitteractionmecp73.aspx>



2019²⁹. The main goal is to improve and promote the environmentally sound management (ESM) of plastic waste at global, regional and national levels. Currently the membership consists of 106 entities made up of Parties, industry and NGOs. The first face-to-face meeting took place in March 2020, hosted by the Seychelles Government. The PWP has been asked to undertake a number of tasks, including: advancing the prevention, minimisation, collection and ESM of plastic waste; undertaking pilot projects; improving information collection and dissemination; and, encouraging innovation and R&D. The work of the partnership is overseen by a working group which has established four project groups which are in the process of generating possible pilot projects³⁰. The groups cover:

- i) prevention and minimisation;
- ii) plastic waste collection, recycling and other recovery including financing and related markets;
- iii) transboundary movements; and,
- iv) outreach, education and awareness-raising. Other elements include a small grants programme and a photographic competition.

A pilot project programme³¹ was also initiated under the partnership, with Parties to the Convention, regional centres and not-for-profit entities being invited to submit proposals for funding to the BRS Secretariat.

The role of Regional Seas Conventions – the example of HELCOM



Ms Maria Laamanen (Ministry of Environment, Finland) pointed out that the Regional Seas organisations cover a significant proportion of the ocean space³². Many have established marine litter action plans or are in the process of doing so. HELCOM³³ has a well-established regional Action Plan for the Baltic Sea, aimed at achieving good environmental status. It introduced a specific action plan for marine litter in 2015³⁴. This contains a number of actions covering land- and sea-based actions and themes. All coastal States carrying out monitoring operate a harmonised programme for beach litter. The Secretariat enables HELCOM to act as a major information hub and report on the state of the Baltic.

On-going activities include developing best practice for the disposal of old fibreglass pleasure boats. The FanPLESStic-sea project³⁵ (2019-2021) is designed to identify the relative importance of different sources of primary and secondary microplastics. It will include a review of existing policies and research; modelling to simulate transport pathways; potential removal technologies and solutions; and, identifying key barriers to the implementation of removal technologies. Other activities include identifying possible measures to reduce the load of expanded and extruded polystyrene (EP and XPS respectively) and cooperation on deposit refund systems. The Action Plans will be updated in 2021 and are planned to address the circular economy more generally.

²⁹<http://www.basel.int/Implementation/Plasticwaste/PlasticWastePartnership/Consultationsandmeetings/LaunchofPWP/tabid/8411/Default.aspx>

³⁰<http://www.basel.int/Implementation/Plasticwaste/PlasticWastePartnership/Projectgroupsandactivities/tabid/8410/Default.aspx>

³¹<http://www.basel.int/Implementation/Plasticwaste/PlasticWastePartnership/CallforPWPpilotprojectproposals/tabid/8494/Default.aspx>

³²<https://www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes>.

³³<https://helcom.fi/>.

³⁴<https://helcom.fi/action-areas/marine-litter-and-noise/marine-litter/marine-litter-action-plan/>.

³⁵<https://helcom.fi/helcom-at-work/projects/fanplesstic-sea/>.

Q&A Session

Q7. Ms Wingfield was asked about the types of capacity development activity the PWP could undertake to support emerging markets in improving environmentally sound management of plastics.

Ms Wingfield responded that the pilot projects would offer the potential to do this, acknowledging that transboundary issues would require increased tracking capacity, particularly since the decision by China to restrict plastic waste imports.

Q8. Mr Kontogiannis was asked if MARPOL was applicable to land-locked countries.

Mr Kontogiannis responded by explaining that some land-locked countries maintained shipping registries, which meant they were obliged to implement MARPOL. In other cases, some countries had adopted similar measures in lakes and river, although IMO was not involved.

Ms Lamaanen intervened to mention that Belarus and Ukraine, which are land-locked countries in the Baltic Sea catchment, have Observer status in HELCOM. So far rivers had not been identified as key litter sources. However, urban wastewater is considered a source of microplastics and work is being done to improve wastewater management to remove not just nutrients and organic matter but microplastics as well.

Q9. Ms Laamanen was asked, by a representative from the Center for International Environmental Law (CIEL), how chemical contamination was addressed by HELCOM and what the relationship was with other conventions.

Ms Laamanen responded that chemical contamination was included in the Baltic Sea Action Plan, in the context of EU and international regulation, but that it was important to identify region-specific pollution issues.

Q10. Ms Wingfield was asked about collaboration between the BRS Secretariat and Regional Seas.

Session 3 – Panel Discussion: Meeting the challenges of addressing plastic leakage to the ocean – next steps

Chair: Mr Steve Fletcher, Member of the International Resource Panel, Professor of Ocean Policy and Economy, Director of Revolution Plastics, University of Portsmouth, United Kingdom



The Chair, Mr Fletcher, welcomed participants to the Panel Discussion. He explained that the purpose of the Panel Discussion was to build on the two previous sessions, Session 1 dealing with circular approaches and Session 2 covering international activities. The panellists would be encouraged to say how they saw G20 members moving forward in addressing plastic leakage to the environment, particularly seas and oceans, from their perspectives.

The five panellists were as follows:

- *Mr Nguyen Que Lam, Deputy Director-General, Vietnam Administration of Sea and Island (VASI), Vietnam*
- *Mr Hugo Maria Schally, Head of Unit, Multilateral Environmental Cooperation, Directorate-General for Environment, European Commission*
- *Ms Linda Godfrey, Council for Scientific and Industrial Research and Professor at Northwest University, South Africa*



- Mr Satoru Iino, Deputy Director, Office of the Marine Environment, Ministry of Environment, Japan
- Ms Winnie Lau, Senior Manager, Prevention of Ocean Plastics, The Pew Charitable Trusts, United States of America

For the **first question** panellists were invited to address what the G20 had done to date, following the adoption of the Action Plan in 2017 and the Implementation Framework last year, and whether that was sufficient.



Mr Nguyen Que Lam noted that, in 2020, Vietnam was chair of ASEAN, a non-permanent member of the UN Security Council and chair of the ASEAN Inter-Parliamentary Assembly. In this context, Vietnam sees plastics waste as a high priority issue in ASEAN countries. ASEAN will continue to implement a cooperative marine waste approach, implement national action plans, and adopt a land-sea programme³⁶ supported by Japan. The EU and ASEAN countries in June 2019 jointly committed to developing a circular economy for plastics in the ASEAN region³⁷, and an international plastic waste centre is being built to help deal with the problem.



Mr Hugo Maria Schally elaborated on the process leading to the definition of the EU Plastic Strategy and on insights gained that could be of interest to those G20 members that are developing national approaches in response to the G20 Framework. One of the major insights of developing the Strategy was that it is necessary to deal with plastics along the whole lifecycle. It is necessary to include elements of the upstream value chain to enable governments, industry and consumers to tackle this issue effectively. This should include the choice of materials and design of products, and it is necessary for information, such as the chemical composition of materials, to be passed along the whole value chain. This will help empower governments to make the right decisions and encourage more

cost-effective waste management. The EU also compared the effectiveness of voluntary measures with strengthening the legislative framework, to create a level playing field for business. This is something G20 countries may wish to consider in relation to their trading partners.



Ms Linda Godfrey explained that the G20 Implementation Framework is very relevant to countries in Africa. It demonstrates the need to adopt a systems approach. This must include technological innovation, in terms of sustainable production and consumption, and improving the end-of life solutions. But it is also about creating an enabling environment. Are we driving a strong science-technology agenda and encouraging Public Private Partnerships? A key question is are we seeing the translation of policy into practical guidance at a municipal level? There is an important message for the African continent from South-east Asia that the plastics issue must be sorted out now, before there is a repeat of the same problems seen there. Africa is seen as a growing market, with a growing

middle class and the expectation of greater consumption of single-use plastics. But, there is a need to balance the need to reduce plastic waste with the benefits of using plastic packaging, such as providing safe food and drinking water, and allowing access to sanitary and medical products in small quantities that would otherwise be unavailable. There is no silver bullet and we therefore need to be a suite of

³⁶ <https://environment.asean.org/wp-content/uploads/2019/06/ASEAN-Framework-of-Action-on-Marine-Debris-FINAL.pdf>

³⁷ <https://asean.org/eu-asean-committed-towards-circular-economy-plastics-asean-region/>



interventions. This is one of the biggest innovation challenges for Africa. For example, can we get goods and services to people using alternative delivery methods? Can Africa leapfrog the problem?



Mr Satoru Iino reminded the audience about the Osaka Blue Ocean Vision, launched in 2019, which had the aim of reducing additional inputs of plastic to the ocean to zero by 2050. It has been shared by about 60 non-G20 countries so far, as well as in the outcome documents of meetings of ASEAN countries. At the core of the Implementation Framework are the actions of Member States. As a follow-up to the Framework, Member States have been invited to submit country reports on their actions to the current Presidency of the G20, which is Saudi Arabia in 2020. The submissions will be incorporated into the 2nd G20 Report on Actions against Marine Plastic Litter, to be published officially at the G20 Environment Ministers Meeting chaired by Saudi Arabia, on 16th September. The

Osaka Blue Ocean Vision provides an opportunity to promote a long-term global vision and develop solutions within an environment of peer-to-peer learning.



Ms Winnie Lau referred to 'Breaking the Plastic Wave', the report conducted by the Pew Charitable Trusts and SYSTEMIQ. The report looked at different scenarios for dealing with waste. The 'business as usual' scenario, which includes recycling, predicts significant future cost, in the region of 100 billion US\$ annually by 2040. If the current levels of government spending were projected, this would leave a gap of 40 billion US\$. The study looked at a number of different strategies around improved waste management and recycling and predicted the need for significant infrastructure spending. Importantly the quantity of plastics ending up in the ocean would be slightly higher than today's level. The most cost-

effective scenario includes 50:50 upstream and downstream solutions, which would save governments about 70 billion US\$ over the next 20 years and reduce plastic leakage into the ocean by about 80%. There is a significant role for G20 countries to support this change in the current plastic economy, such as reducing the consumption of single use plastics and packaging.

The **second question** was related to the circularity aspects discussed in session 1, specifically on whether there was scope for improving the current international framework for addressing plastic leakage to the environment, or whether current governance arrangements were sufficient.

Ms Lau thought that the present governance framework can help, but there is a need to work across the whole value chain and involve all stakeholders. Some areas could be improved. For example, there is a need for greater enforcement to tackle the illegal waste trade and to make sure that receiving countries can deal with imported waste without negative impacts on their ability to deal with domestic waste. There is an opportunity for a new international framework to contribute to lowering the demand for the conversion of virgin fossil fuels to plastic. In addition, it could help to support harmonised monitoring and provide a mechanism for financial and technical support to developing countries. There is also a need to emphasize and improve communication between regional and international frameworks. More emphasis is needed on microplastics that enter the environment, such as microbeads, microfibers, plastic pellets and tire dust, as there are fewer solutions to tackle these primary sources of microplastic pollution.

Mr Iino explained that he was Acting Chair of the ad hoc open-ended expert group on marine litter (AHEG), set up under UNEA resolution 3/7. Member States (MS) had been asked to identify potential national, regional and international response options to AHEG and a technical briefing had been organised by AHEG to analyse the responses. He explained that AHEG is trying to adopt a neutral position, not suggest a 'best option'. However, from the responses received there were five key common



aspects: i) there is need for a common vision; ii) the importance of a Life Cycle Approach – different MS place a higher or lower emphasis on upstream or downstream aspects; iii) the importance of national action plans, taking account of the national context; iv) the example of existing multi-stakeholder partnerships such as SAICM; and, v) possible options for strengthening these points – some MS recommend a global international agreement, whereas for others this is too complex.

Ms Godfrey observed that a lot of focus has been on downstream solutions such as improved recycling and waste management. There is great opportunity to improve this in Africa, particularly in the post-Covid economic recovery with the possibility to fast-track solutions and provide job opportunities. Public-Private Partnerships are needed to jointly solve some these issues, with transparency being key. It is very important to acknowledge and integrate the informal sector. One difference is that companies can be forced to improve within the EU, but this does not always translate to in developing countries.

Mr Schally gave an EU perspective on the current international framework. He reminded the audience that every UNEA since UNEA-2 has passed a resolution agreeing that business as usual is not an option. This has been accompanied by a mushrooming of initiatives at national, regional and international levels. At the same time there has been a significant increase in the production of plastics and its leakage into the environment. However, work within the G20 has shown that we are not going to solve the problem focussing only on waste management, but a whole life cycle approach is required. It is clear that there are international frameworks designed to look at particular elements of the problem. However, what is lacking is a common approach and understanding that would help to deal with the economics of plastics leakage. On this basis the EU does think that we need to move towards a new international framework, and the next opportunity to do this will be at UNEA-5. The framework needs to be designed to allow all stakeholders to take part and take account of the global value chain.

Mr Que Lam explained that Vietnam has been importing large and increasing volume of waste plastic. For example, on average 91,000 tonnes was imported in the period 2013-2017. In the first five months of 2018 the plastic waste imports doubled. There is a risk of Vietnam becoming the recipient of other countries waste problems. ASEAN countries are fully supportive of the amendment to the Basel Convention on restricting the importing of plastic waste, and prevention and enforcement actions to curb the illegal trade in waste. ASEAN Environment Ministers have undertaken to ban the importation of waste plastic from other countries and share information. Vietnam supports the creation of a new global agreement, moving towards a circular economy and financing support for implementation.

Mr Fletcher summed up the Panel Discussion by highlighting three key messages:

1. The need to own the problem across the whole plastics life cycle; i.e. all stakeholders need to be involved;
2. Recognition that upstream activities are the real priority; and
3. If we want to see some form of system change, actions at a national or sub-national level are not enough, opening up the discussion about some form of global agreement.

He concluded by thanking all the panellists for their excellent contributions.



Closing Session

Chair: Ms Astrid Schomaker, Director, Global Sustainable Development, Directorate-General for Environment, European Commission

Ms Schomaker thanked all the chairs, panellists and presenters for their contributions, which made the workshop a success. She reminded the audience that a report would be prepared, and the presentations would be made available online³⁸. Clearly a lot of activity was happening at national, regional and global scales, involving industry, national governments, Regional Seas and UN agencies. The G20 was at the centre of much of this action, but the work of the G20 had much greater relevance beyond the G20, and this had been illustrated during the meeting. There is an urgent need to step up monitoring pathways and impacts, in order to target better reduction measures and check their efficacy. Unfortunately, there was no 'silver bullet' and it was necessary to adopt a broader systemic approach. This needs to involve a lifecycle approach involving all actors. Designing out waste is the way forward and this will promote economic and technical innovation, benefitting government and industry, as well as benefitting the environment. This is the case both for developed and developing countries. There is scope and a need over and above what the G20 has achieved already, individually and collectively, and the EU hopes that additional progress can be made at UNEA-5. Finally, Ms Schomaker thanked the Governments of Japan and Saudi Arabia for their fruitful collaboration and looked forward to the Presidencies of Italy and India, to lead further action within the G20.

Mr Abdulmohsen Alshnaif (CEO of the National Centre of Waste Management in the Kingdom of Saudi Arabia) gave some concluding remarks on behalf of Mr Faqeeha. He expressed his thanks to all those involved in the workshop, and to the insights of the contributors, especially on the application of the circular economy approach. He acknowledged the actions of fellow G20 countries, and how these can contribute to international actions in combating plastic leakage to the ocean. In the context of the activities in 2019 under the Presidency of Japan, on marine litter and resource efficiency, the Kingdom of Saudi Arabia is proud to support such actions within the priorities of the 2020 Presidency. A key challenge has been the need to respond quickly and effectively to the Covid-19 pandemic. This was recognised by the holding of an extraordinary leaders meeting in March 2020, where undertakings were made to save human life and restore economic well-being and set out a path to achieve sustainable and equitable growth. It is essential to maintain focus and 'build back better', in this way protecting the environment. Today's workshop is an important step towards safeguarding the ocean, our global commons, from the threat posed by marine litter. This discussion will continue during the forthcoming environment on 14-15 September and at the meeting of Environment Minister of 16 September. The Kingdom of Saudi Arabia will continue to support this work in its Troika role during the Italian Presidency. Mr Alshnaif concluded by repeating his appreciation of the workshop and offering continuing support during the remaining period of the 2020 Presidency.

Ms Schomaker ended the meeting by repeating her thanks to the chairs, presenters and panellists and expressed hope that the workshop would stimulate further ideas and actions.

³⁸ https://ec.europa.eu/environment/international_issues/relations_g20_events_en.htm



FINAL AGENDA

12:00	Log-on
13:00-13:25	Opening Session <i>Chair: Ms Astrid Schomaker, Director, Global Sustainable Development, Directorate-General for Environment, European Commission</i>
13:00-13:15	Introduction, welcoming statements and housekeeping <ul style="list-style-type: none"> – <i>Ms Astrid Schomaker, Director, Global Sustainable Development, Directorate-General for Environment, European Commission</i> – <i>Mr Osama I. Faqeeha, Deputy Minister for Environment, Ministry of Environment, Water and Agriculture, Kingdom of Saudi Arabia</i>
13:15-13:25	Recap of Japan's workshop on 'Harmonized monitoring and data compilation of marine plastic litter' (7 September 2020) <ul style="list-style-type: none"> – <i>Mr Tatsuya Abe, Deputy Director, Office of Marine Environment, Ministry of the Environment, Japan</i>
13:25-15:05	Session 1 – Addressing the sources of plastic waste through circular economy approaches <i>Chair: Ms Emmanuelle Maire, Sustainable Production, Products and Consumption, Directorate-General for Environment, European Commission</i> Against the background of the G20 Marine Litter Action Plan and the Implementation Framework for Actions on Marine Plastic Litter, as well as relevant UNEA resolutions, this session aims at exploring the contribution of circular economy approaches to preventive measures. Advances in product and material design, resource efficiency measures, regulation and market-based instruments will be among the topics discussed. This session will also offer an opportunity for exchange on the specific challenges posed by the management of plastic waste and the Covid-19 pandemic.
13:25-13:35	The need for a comprehensive circular economy approach to address plastic pollution at its source <ul style="list-style-type: none"> – <i>Mr Sander Defruyt, Lead, New Plastics Economy, Ellen McArthur Foundation</i>
13:35-13:45	Indonesia's approaches in addressing marine plastic litter through circularity actions <ul style="list-style-type: none"> – <i>Mr Novrizal Tahar, Director of Waste Management, Ministry of Environment, Indonesia</i>
13:45-13:55	EU legislative instruments to address marine plastic litter <ul style="list-style-type: none"> – <i>Mr Michel Sponar, Deputy Head of Unit, Marine Environment and Water Industry, Directorate-General for Environment, European Commission</i>
13:55-14:10	Q&A
14:10-14:20	Extended Producer Responsibility, Deposit Return Schemes and other market-based instruments <ul style="list-style-type: none"> – <i>Mr Peter Börkey, Organization for Economic Cooperation and Development (OECD)</i>
14:20-14:30	Addressing abandoned, lost or otherwise discarded fishing gear and their impacts <ul style="list-style-type: none"> – <i>Ms Ingrid Giskes, Director of the Global Ghost Gear Initiative, Ocean Conservancy</i>
14:30-14:40	Waste management during a pandemic – leakage of Covid-19 related plastic litter to the environment <ul style="list-style-type: none"> – <i>Mr Mushtaq Ahmed Memon, Regional Coordinator for Resource Efficiency, Asia Pacific Regional Office, United Nations Environment Programme, Bangkok</i>



14:40-15:05	Q&A
15:05-15:15	Comfort break
15:15-16:00	<p>Session 2 – The global dimension <i>Chair: Mr Hugo Maria Schally, Head of Unit, Multilateral Environmental Cooperation, Directorate-General for Environment, European Commission</i></p> <p>This session will explore international action to address plastic litter leakage to the environment, notably the seas and oceans, and how G20 members can contribute to it.</p>
15:15-15:25	<p>IMO Action Plan against marine litter</p> <ul style="list-style-type: none"> – <i>Mr Loukas Kontogiannis, Head Marine Pollution, Subdivision for Protective Measure, International Maritime Organisation (IMO)</i>
15:25-15:35	<p>Basel Convention – Plastics Waste Partnership</p> <ul style="list-style-type: none"> – <i>Ms Susan Wingfield, Secretariat of the Basel, Rotterdam and Stockholm Conventions, United Nations Environment Programme, Geneva</i>
15:35-15:45	<p>The role of Regional Seas Conventions – the example of HELCOM</p> <ul style="list-style-type: none"> – <i>Ms Maria Lamaanen, Ministry of Environment, Finland</i>
15:45-16:00	Q&A
16:00-16:50	<p>Session 3 – Panel Discussion: Meeting the challenges of addressing plastic leakage to the ocean – next steps <i>Chair: Mr Steve Fletcher, Member of the International Resource Panel, Professor of Ocean Policy and Economy, Director of Revolution Plastics, University of Portsmouth, United Kingdom</i></p> <p>Building on the two previous sessions, participants will exchange views on how they see G20 members moving forward in addressing plastic leakage to the environment, particularly seas and oceans.</p> <ul style="list-style-type: none"> – <i>Mr Nguyen Que Lam, Deputy Director-General, Vietnam Administration of Sea and Island (VASI), Vietnam</i> – <i>Mr Hugo Maria Schally, Head of Unit, Multilateral Environmental Cooperation, Directorate-General for Environment, European Commission</i> – <i>Ms Linda Godfrey, Council for Scientific and Industrial Research and Professor at Northwest University, South Africa</i> – <i>Mr Satoru Iino, Deputy Director, Office of the Marine Environment, Ministry of Environment, Japan</i> – <i>Ms Winnie Lau, Senior Manager, Prevention of Ocean Plastics, The Pew Charitable Trusts, United States of America</i>
16:50-17:00	<p>Closing Session <i>Chair: Ms Astrid Schomaker, Director, Global Sustainable Development, Directorate-General for Environment, European Commission</i></p>
	<p>Concluding remarks and take-home messages</p> <ul style="list-style-type: none"> – <i>Ms Astrid Schomaker, Director, Global Sustainable Development, Directorate-General for Environment, European Commission</i> – <i>Mr Osama I. Faqeeha, Deputy Minister for Environment, Ministry of Environment, Water and Agriculture, Kingdom of Saudi Arabia</i>

Welcoming session



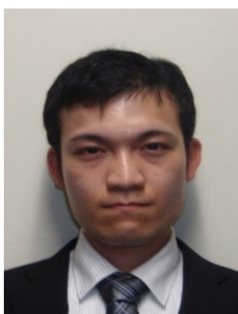
Ms Astrid Schomaker, Director, Global Sustainable Development, Environment Directorate General, European Commission

A lawyer by training, since joining the Commission in 1992, Astrid has held a variety of posts in the areas of international relations and environment policy, amongst them leading the work on chemical policy, marine issues and the environment policy strategy to 2020.



Dr Osama I. Faqeaha, Deputy Minister of Environment, Saudi Arabia

Osama Faqeaha is the first deputy minister for Environment in the ministry of Environment, Water and Agriculture since 2016. Prior to that he was active in environmental protection in the energy industry in KSA. He oversees the development of the National Environmental Strategy and the restructuring of the environmental sector in KSA which includes creating five national environmental centers and a national environmental fund. He also oversees the development of a new environmental regulations that was recently promulgated. He is a Board member of many national entities in KSA and leads KSA international Environmental engagements.



Mr Tatsuya Abe, Deputy Director, Office of Marine Environment, Ministry of the Environment, Japan

Mr. Tatsuya Abe has worked for Ministry of the Environment, Japan since 2010, as a technical officer. He has been involved in various environmental issues including pollution from transport, environment impact assessment, and sewerage management. Being born and raised in Fukuoka near the coast, he has been familiar to sea. He earned master degree in Tokyo Institute of Technology in Japan in 2010.

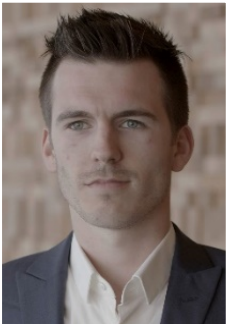
Session 1



Ms Emmanuelle Maire, Head of Unit, Sustainable Production, Products and Consumption, Directorate-General for Environment, European Commission

Emmanuelle Maire works at the European Commission in Brussels, in the Directorate general for Environment (DG ENV). She heads the team responsible for Sustainable Production, Products and Consumption. The core activity of the team is to support the transition to a circular and green economy in the European Union, through a new Circular Economy Action plan under the EU Green Deal:

https://ec.europa.eu/environment/circular-economy/pdf/new_circular_economy_action_plan.pdf



Mr Sander Defruyt, Lead, New Plastics Economy, Ellen McArthur Foundation

Sander leads the [New Plastics Economy initiative](#), an ambitious, global initiative bringing together key stakeholders to rethink and redesign the future of plastics, starting with packaging. Through the New Plastics Economy [Global Commitment](#) and network of [Plastic Pacts](#), more than 850 organisations around the world have united behind a common vision of a circular economy for plastics and concrete 2025 targets to help realise that vision.

Before joining the Foundation, Sander worked as a management consultant at McKinsey & Company. During his period at McKinsey's Centre for Business and Environment he was part of the core team publishing the report, Growth Within: a circular economy vision for a competitive Europe. Sander has a background in mechanical engineering.



Dr Novrizal Tahar, Director of Waste Management, Ministry of Environment, Indonesia

Dr. Novrizal Tahar has expertise in political science and environmental pollution control and management.

He has working experience from Ministry of Environment and Forestry of the Republic of Indonesia from over two decades. He has also been Head of HRD Developing and Planning, Head of Bureau Communication, Secretary to Direktorat General Law Enforcement and Head of Regional Bali and NTT.



Mr Michel Sponar, Deputy Head of Unit, Marine Environment and Water Industry, Directorate-General for Environment, European Commission

Michel has been working since December 2015 as Deputy Head of Unit at the European Commission, Directorate-General for the Environment. He is co-leading a team dealing with Marine Environment and Water Industry. His team is involved in particular with the implementation of the Marine Strategy Framework Directive, including work related to monitoring and marine litter quantities and impacts. He was directly involved in the elaboration of the EU Strategy for Plastics and its follow-up regarding plastic litter, in particular the Single Use Plastics Directive and work on microplastics.

Before then, he worked on the 2015 package on the Circular Economy and on the Thematic Strategy on Air Pollution. Between 1991 and 2002, he was Deputy Head of the Environment Minister's Cabinet at the Brussels Region in Belgium.

His background is Bio Engineer (Scientific education) with a complement in Business Management.

Session 1



Mr Peter Börkey, Principal Administrator, Environment Directorate, OECD

Peter Börkey has been working on international and local environmental policy issues for 25 years. For the past 20 years he has worked for the OECD, primarily on issues relating to water, business and environment, as well as infrastructure finance. He is now leading OECD work on waste management and resource productivity, with a strong focus on resource efficiency and the circular economy.

Prior to this, Mr Börkey has been leading OECD's cooperation with countries in Eastern Europe, Central Asia and the Caucasus in the area of water management, as well as leading work in the framework of the OECD Horizontal Water Programme focusing on the financing of water supply and sanitation in developing countries.

Before joining the OECD, Mr Börkey worked as a consultant, specialized in environmental economics. Mr Börkey holds degrees in Economics and Engineering from the Technical University of Berlin and University of Grenoble in France.



Ms Ingrid Giskes, Director, Global Ghost Gear Initiative, Ocean Conservancy

Ingrid Giskes is the Director of the Global Ghost Gear Initiative (GGGI), where she leads the GGGI's policy agenda and portfolio of projects across more than 100 partners including 16 national governments. Through her work, she has spent time with artisanal fishers in Vanuatu and Indonesia to mark and track their fishing gear, led government and corporate roundtables, participated in gear removals and presented at high-level policy and industry conferences including APEC, ASEAN, WCPFC, Our Ocean and the UN Ocean Conference. She supported the Fisheries Technology Team at FAO to implement the Voluntary Guidelines for the Marking of Fishing Gear (VGMFG) and the development of the Responsible Fishing Operations Umbrella Programme. She holds a BSc in Germanic Languages and Philosophy, a MSc in Germanic Languages, a MSc in Education and a MSc in International Relations, Diplomacy and Conflict Resolution. Previously, she undertook overseas development work in Cambodia, lectured at Zhejiang University in Hangzhou (China), worked for Amnesty International in Australia on refugee policy, and worked for World Animal Protection for 10 years in a variety of roles including as their International Head of the Sea Change Programme overseeing the ocean portfolio of 15 country offices and chairing the Global Ghost Gear Initiative.



Dr Mushtaq Ahmed Memon, Regional Coordinator for Resource Efficiency, Asia Pacific Regional Office, United Nations Environment Programme, Bangkok

Dr. Memon is working with UN Environment (United Nations Environment Programme) as a Regional Coordinator for Resource Efficiency in Asia Pacific Office located in Bangkok. He is supporting resource efficiency, sustainable consumption and production, green economy, green financing, sustainable public procurement, sustainable tourism, sustainable industries and various areas for Asia and the Pacific. He is also implementing EU funded SWITCH-Asia Phase 2 component by UN Environment to support Sustainable Development Goals (SDGs), especially SDG 12 on sustainable consumption and production in the region.

Dr. Memon is also Project Manager for Regional Policy Advocacy Component of the EU-funded SWITCH-Asia Programme to promote sustainable consumption and production and uptake of SDG 12 in Asia. Until the end of 2016, Dr. Memon was working at UN Environment's office in Osaka, Japan (International Environmental Technology Centre (IETC)). He has more than 25 years of intensive experience in project planning and management. He has implemented various international projects in many different sectors including seaports, water supply, and waste management with a focus on international cooperation for environmental services and sustainable development.

Session 2



Dr. Hugo Maria Schally, Head of Unit, Multilateral Environmental Cooperation, Environment Directorate General, European Commission

Hugo has worked in the area of sustainability since 1991 as has held positions as head of unit in the European Commission DGs for External Relations, Development and Environment.

In his current function, he is coordinating the work of the European Commission with regard to international environmental organisations and multilateral environmental agreements, on trade and environment as well developing EU policies and legislation regarding deforestation and forest degradation, international trade in wildlife and the access to and sharing of the benefits derived from the utilisation of genetic resources.



Mr Loukas Kontogiannis, Head, Marine Pollution, Subdivision for Protective Measures, Marine Environment Division, International Maritime Organisation

The Marine Pollution team at the International Maritime Organization (IMO) facilitates the output of the Organization in connection with requirements and guidance on prevention of pollution by: oil; noxious liquid substances in bulk; harmful substances carried by sea in packaged form; sewage from ships and garbage from ships. Loukas is currently the Secretary to the Sub-Committee for Prevention Pollution and Response (PPR) and was also the Secretary to the Working Group that developed the IMO Action plan to address marine plastic litter from ships during the seventy-third session of the Marine Environment Protection Committee in 2017.

<http://www.imo.org/en/OurWork/Environment/PollutionPrevention/Pages/Default.aspx>

<http://www.imo.org/en/MediaCentre/PressBriefings/Pages/20-marinelitteractionmecp73.aspx>



Ms Susan Wingfield, Programme Officer, BRS Secretariat

Susan Wingfield is a Programme Officer in the Governance Branch of the Secretariat of the Basel, Rotterdam and Stockholm Conventions. Among her responsibilities is the facilitation of two partnerships under the Convention, on plastic waste and household waste, and coordination of the work of one of the Convention's subsidiary bodies.

Prior to her role at the Secretariat, Susan performed a variety of project management and consultancy roles within the UN, World Bank, UK government and banking, finance and IT sectors. Susan holds a Bachelor degree in economics and a Masters in environmental technology.



Ms Maria Lamaanen, Senior Ministerial Advisor, Ministry of Environment, Finland

In the ministry, my duties include coordination of implementation of the EU Marine Strategy Framework Directive, being Head of Delegation of Finland to HELCOM and being Finland's nominated expert to UN Ad Hoc Open Ended Expert Group on Marine Litter and Microplastics. Aside from the ministry, I also work partly in Åbo Akademi University as Professor of Practice.

Session 3



Prof. Steve Fletcher, Director Revolution Plastics, University of Portsmouth, UK
Steve is Professor of Ocean Policy and Economy and Director of Revolution Plastics at the University of Portsmouth. He is a coastal and ocean governance specialist with a focus on plastic pollution. He is the Marine Lead of the UN International Resource Panel and former Chief Strategy Officer of UNEP-WCMC.



Mr Satoru Iino, Deputy Director, Office of the Marine Environmental Management Bureau, Ministry of Environment, Japan

Since employed by the Ministry of the Environment Japan in 2003, he has been involved in various environmental issues including minamata disease, policies against climate change, and economic policy for environment. Since August 2019, he has been working for marine plastic pollution at current position. He is a member of bureau of AHEG (the ad hoc open-ended expert group on marine litter and microplastics) established under the UN Environment Assembly and is currently serving as acting chair. He earned Bachelor's Degrees in Law from the University of Tokyo.



Prof. Linda Godfrey, Council for Scientific and Industrial Research, and North-West University, South Africa

Prof Linda Godfrey is a Principal Scientist at the Council for Scientific and Industrial Research (CSIR) and Extraordinary Professor at Northwest University in South Africa, and holds a PhD in Engineering from the University of KwaZulu-Natal. With over 20-years of sector experience, she manages the Waste Research Development and Innovation (RDI) Roadmap Implementation Unit on behalf of the Department of Science and Innovation, a unit tasked with implementing South Africa's 10-year Waste RDI Roadmap. She has provided strategic input to a number of local, regional and international waste and circular economy initiatives for the United Nations, European Union, World Bank, South African Government Departments, Academy of Sciences, International Solid Waste Association, universities and businesses. She lectures internationally on solid waste management in developing countries, including the social, economic and environmental opportunities of "waste" within a circular economy context. She has published extensively in the field.



Mr. Nguyen Que Lam, Deputy Director General, Vietnam Administration of Sea and Island, Vietnam

Mr. Nguyen Que Lam, on behalf of the Vietnam Administration of Seas and Islands, the Ministry of Natural Resources and Environment of the Socialist Republic of Vietnam, Bachelor of Economics, Master of Business Administration.

- He had four years to work for the Vietnam Chamber of Commerce and Industry (VCCI) since 2005-2008;
- From 2009 to 2012 He worked for Ministry of Foreign Affairs (MOFA);
- From 2013 to 2019 He worked for Vietnam Union of Friendship Organization (VUFO).
- In September 2019, He was promoted to be a Deputy Director General, Administration of Sea and Islands of Vietnam (VASI), Ministry of Natural Resources and Environment (MONRE). He is in charge of International Cooperation, participated in the implementation of important strategies and projects of VASI such as the Sustainable Development Strategy of Vietnam's marine economy to 2030, a vision to 2045, The National Action Plan on marine plastic waste management to 2030.

Session 3



Dr Winnie Lau, Senior Manager, Preventing Ocean Plastics, The Pew Charitable Trusts, USA

Winnie Lau is senior manager with Pew's preventing ocean plastics project, which aims to propose economically and politically feasible strategies to reduce the global ocean plastic pollution problem. Winnie is also the technical lead for the project. Winnie joined Pew's international conservation unit in 2014 and focused on developing strategies, new projects, and partnerships in Asia. Before joining Pew, she was the climate change science and technology adviser for the United States Agency for International Development's mission to Sri Lanka and Maldives. She also served as manager of the Marine Ecosystem Services Program at Forest Trends, as well as a science and technology policy fellow for the American Association for the Advancement of Science at the U.S. State Department. Winnie holds a bachelor's degree in integrative biology and environmental sciences from the University of California, Berkeley and doctorate in oceanography from the University of Washington.



Mr Hugo Schally,

Head of Unit, Multilateral Environmental Cooperation, Environment Directorate General, European Commission

Hugo has worked in the area of sustainability since 1991 as has held positions as head of unit in the European Commission DGs for External Relations, Development and Environment.

In his current function, he is coordinating the work of the EC with regard to international environmental organisations and multilateral environmental agreements, on trade and environment as well developing EU policies and legislation regarding deforestation and forest degradation, international trade in wildlife and the access to and sharing of the benefits derived from the utilisation of genetic resources.

Closing session



Ms Astrid Schomaker, Director, Global Sustainable Development, Environment Directorate General, European Commission

A lawyer by training, since joining the Commission in 1992, Astrid has held a variety of posts in the areas of international relations and environment policy, amongst them leading the work on chemical policy, marine issues and the environment policy strategy to 2020.



Dr Osama I. Faqeeha, Deputy Minister of Environment, Saudi Arabia

Osama Faqeeha is the first deputy minister for Environment in the ministry of Environment, Water and Agriculture since 2016. Prior to that he was active in environmental protection in the energy industry in KSA. He oversees the development of the National Environmental Strategy and the restructuring of the environmental sector in KSA which includes creating five national environmental centers and a national environmental fund. He also oversees the development of a new environmental regulations that was recently promulgated. He is a Board member of many national entities in KSA and leads KSA international Environmental engagements.

