

Marine Litter

“European Answers to a Global Challenge”

6 September 2016

Mr **Ricardo SERRÃO SANTOS**, MEP, Vice-Chair of the Intergroup, reminded participants of the discussion held in Capetown during the World Geological Assembly where it was agreed that a new geological period had been initiated: The Anthropocene. Indicative of the overwhelming spread of plastics in the world oceans is the fact that at the Conference, micro-plastics in the seabed were discussed as a potential marker for the change of period. In 2015, 300,000 million tonnes of plastic were produced, of which about 10% ended up in the oceans. 5 million tonnes of particles now float in the sea. He stressed that this estimation does not include the particles that have sunk to the bottom as there are now plastics now lying in the deep sea.

Mr SERRÃO SANTOS listed some harmful consequences, such as:

- Potential mechanical damage to animals;
- Floating litter: spreading invasive species (also taking advantage of weakened ecosystems);
- Concerns about nano-plastics as these can get through membranes.

Calling for strong action, he welcomed G7's recognition of the importance of this issue. He regretted that the EU's plastics industry exports to countries that don't have the capacity to recycle plastic like we do here.

Discussion 1: Are there solutions to the global environmental problem of marine litter?

This discussion was moderated by Mrs **Catherine BEARDER**, MEP, Member of the Intergroup. She noted that people tend not to realise that biodiversity loss is also an issue in the sea. 4,000 tonnes of micro-plastics are being dumped into the sea. They are totally unnecessary. Mrs Bearder explained that the UK is going to start banning microbeads in early 2017 and the USA is thinking about that too.

First Round

Mrs **Sigi GRUBER**, Head of Marine Resources Unit, DG Research and Innovation, European Commission, explained that 80% of litter in the sea is plastic, and most of it comes from LAND. 70% of litter is below the surface water. She said that research can help, but it cannot really resolve the issue alone. Over the last 4 years, in the framework of Horizon2020, 58 million Euros have been spent on projects tackling micro-plastics. It included:

- Biotechnology approaches to create biodegradable materials that are not only biodegradable on land but also in the sea;
- Research on the impact on health.

Mrs Gruber announced that in 2017 a Call will focus on land-sea connection. She stressed that more research is needed to help reduce micro-plastics in different settings. Her DG is now also working on how to change behaviour, through a huge citizens' campaign.

Mr **Philippe DE BACKER**, Belgian Secretary of State for Social Fraud, Privacy and the North Sea, introduced his speech by quoting Ruth Ann MINNER *“Benjamin Franklin said there were only two things certain in life: death and taxes. But I'd like to add a third certainty: trash”* and Jacques-Yves COUSTEAU *“Water and air, the two essential fluids on which all life depends, have become global garbage cans”*.

Thanks to marine science, marine litter is increasingly known. 20,000 tonnes per year are dumped in the North Sea. In Belgium, as Secretary of State, he explained that he only has an impact on what happens 10 metres below the water line, what comes before that is within the mandate of the Regions. A major share of this work consists of getting every stakeholder on the same line, including the public and all North Sea users (fishermen, maritime transport, offshore windfarms, etc.).

Mr DE BACKER concluded stating that the future is trash and a KEY element to deal with it is the circular economy.

Ms Heike IMHOFF, Head of Division Protection of the Marine Environment, German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, explained that she had a partly German, partly regional and partly European and International view on the subject. She presented these different scales of action ([see PPT](#)).

Mr Lars SONESTEN, Chair of the HELCOM Pressure Group, Swedish University of Agricultural Science presented Helcom's Regional Action Plan adopted in 2015 aiming to get significant reductions by 2025 ([see PPT](#)).

Panel discussion and Q&A

Mr Drew RATTER, Councillor, Shetland Islands, shared his major concern about the impact on fisheries. He sees this becoming a problem for sales of fish if people stop considering fish as a healthy source of food.

Microbeads are one problem, but he would have liked to have heard about fibres. Finally, he asked whether the speakers think that introducing a tax on that could be a good idea.

Mr DE BACKER explained what he tried to do in Belgium:

- Raise awareness at the start of the production in the first place (Circular economy: production is a starting point);
- They also try to work together with fishermen & other users of the sea to ensure they know the state of the art and stimulate them to use the best practices;
- It is one thing avoiding litter and production, another is more positive to recycle and achieve a circular economy and use the waste for other goals.

Mrs IMHOFF said that, in Germany, there was a study on the cost of marine litter. The cost of non-action ended up to be higher than the cost of action. If you can convey that message to stakeholders, you get more effect.

Mrs GRUBER agreed with Mr De Backer: this is a cross-sectorial issue, looking into manufacturing is an important thing.

Mrs Heather LESLIE stressed that public awareness raising is dominant in this narrative. She pointed out that awareness raising can actually backfire: you can normalise undesired behaviour. A sophisticated, targeted message is needed. She wondered if this is being considered when so much awareness-raising projects are being carried out.

Mr DE BACKER explained that Belgium stepped away from the general approach to develop different actions for different target groups (e.g. fishermen approached differently than other groups).

Second Round

Ms Heather LESLIE, Coordinator [CleanSea Project](#), Institute for Environmental Studies VU University Amsterdam presented the project ([see PPT](#)). The need for strong support from Government was one of the outcomes of the research. The main conclusion of CleanSea is that an integrated approach is crucial.

Mr Joost DUBOIS, Head of Communication, presented [The Ocean Cleanup](#). He explained that they aim to have the first fully operational system in the Pacific Ocean by 2020.

Mr Bernhard BAUSKE, Head of Strategic Business Partnering, WWF, called for the establishment of producer responsibility in financing the waste collection ([see PPT](#)).

Ms Cecilia DONATI, Institutional Relations Officer, introduced [Mercator Oceans](#) which operates the Copernicus Marine Service. It provides oceanography products and services to a wide range of users.

INTERGROUP SEAS, RIVERS, ISLANDS AND COASTAL AREAS



Ms **Lauriane ERNEST**, Partnership Officer and Spokesperson, presented the [Expédition 7e continent](#) (French). She explained that it aims to create a virtuous circle to fight marine litter ([see PPT](#)).

Panel discussion and Q&A

Mr **SERRÃO SANTOS** asked whether the speakers knew how much marine litter was discarded at sea from ships compared to the litter that came from land.

Mr **BAUSKE** estimated that between 5 and 12 million tonnes per year are coming from land into the sea. The majority of this is packaging wrap.

Mr **DUBOIS** explained that, in terms of volume, it seems to be more linked to discards of fishing gear, than to other sources.

Mrs **LESLIE** said that in the North Sea, as there is a lot of industrial activity, there is more litter from land

Mrs **BEARDER** stressed that not one day passes without seeing a plastic milk bottle floating around...what the public sees is the sea shore, but the open ocean can be different.

Mrs **MEISSNER** asked how long would the Ocean Cleanup take to clean up and how much would it cost.

Mr **DUBOIS** stressed that they don't promise that they are going to solve the entire problem. Their model says that they can clean-up half of the Northern Pacific in 10 years. It would cost 300 million Euros to deploy the system. The design is changing, they are learning while making progress, but still several hundreds of millions of Euros is an honest estimate.

Discussion 2: Rethinking the Future of Plastics - Marine Litter and the Circular Economy?

The discussion was moderated by **Deirdre CLUNE**, MEP, Member of the Intergroup.

First Round

Mr **Matjaz MALGAJ**, Head of Unit for the Marine Environment and Water Industries, European Commission, presented the existing legal scope for marine litter ([see PPT](#)). He stressed the importance of the circular economy: it is a very important step. He also highlighted the priority sectors to tackle this issue: food waste, critical raw materials, biomass & bio-based production, plastics, construction demolition.

Mr **Andy BOOTH**, Project Coordinator of the PLASTOX project, SINTEF Materials and Chemistry, Trondheim, focussed on the eco-toxicological impact of micro-plastics on marine organisms ([see PPT](#)). Micro-plastics may pass to larger organisms ending up in human food (they *may*... it's still being researched). They found evidence of sub-lethal impacts (still limited studies) not really lethal, but they influence the way the organisms function. This is really problematic as many of these organisms are key organisms in the food webs.

Mr **Michiel DE SMET**, Project Manager of the New Plastics Economy Initiative, presented the Ellen MacArthur Foundation's vision of the New Plastics Economy through a Report entitled "[The New Plastics Economy, Rethinking The Future Of Plastics](#)". He explained that, although plastics have lots of benefits, a lot of money is wasted because the majority of production is getting lost and leaks are harmful to the environment. He called to create a working-after-use economy which would reduce leakage into the environment. He also suggested turning from plastics that are based on fossil fuel sources, to renewable sources ([see PPT](#)).

Ms **Stephanie MAES**, Project Manager, Waste Free Oceans, stated that marine debris is everyone's problem ([see PPT](#)).

Panel discussion and Q&A

Mr **SERRÃO SANTOS** highlighted that some of the plastics are chemically inert, some are not, the diversity in types of plastics is so vast. He asked the panellists if "bad" plastics should be recycled. When recycling, traceability is lost because different types of plastics are mixed.

Mr **BOOTH** explained that if you extend plastics to include polymers it's a huge family group. In many applications there's also additives combined with them. There are endless possibilities of material types. In terms of toxicity to organisms, in any case, even if they are inert, ingestion is going to have an effect in the long term. There is currently not enough knowledge on the subject.

In terms of recycling, every time you recycle a plastic it loses a property. There is a limited amount of possible or useful recycling. He is sceptic about the idea of these new plastic products that are recycled and would end up in the ocean.

Mr **MALGAJ** stressed how complex this problem is.

Mrs **MAES** explained if you want to have a product on the market that is recycled, you need "good plastics" to use for this recycling.

Mrs **LESLIE** wondered whether the example of China could be inspiring. Indeed, they have a plan to hold corporations liable for the environmental damages they cause. Such a disposition could help investors support the industries that are trying to change their way into a more sustainable way of working.

Mr **RATTER** asked Mr **BOOTH** whether the ingestion of nano-plastics by fish could impact human health. He asked if it was possible to find out more about it, as it appears to be a fundamentally alarming possibility.

Mr **BOOTH** explained that internalisation of plastics in the organs of organisms is a new study issue and there are only a few studies published to this day. There is simply not enough knowledge produced to answer this question accurately today.

For Mr **MALGAJ**, extending producer's responsibility could be an answer. However, the existing instruments for corporate responsibility would work for companies that are directly responsible.

Mrs **MAES** highlighted that there is a trend that users/consumers want to know more about the origins of their products. This is a positive evolution towards the future. Customers are more and more concerned and aware of what they buy.

Second Round

Mr **Karl-H. FOERSTER**, Executive Director, Plastics Europe, listed 3 key elements to tackle marine litter: waste management, citizens' behaviour and global action. He explained that people have to change their mindsets: realise that plastic waste is a resource ([see PPT](#)). He referred to several industry-led initiatives:

- Operation Clean Sweep;
- Global Declaration on Marine Litter Solutions;
- World Plastics Council.

Ms **Gaëlle HAUT**, EU Officer, Surfrider Foundation, stated that there is a lot of simple measures that are easy to implement (e.g. ban certain products). Ms Haut said that the EU doesn't need complicated structures or discussions, it just has to do these things now ([see PPT](#)).

Ms **Emma PRIESTLAND**, Marine Litter Policy Officer, Seas at Risk, called for reducing the use of plastic to save our seas. She stressed the need to challenge the status quo in the face of irreversible ecological damage. Mrs Priestland presented a Baltic case study ([see PPT](#)).

Panel discussion and Q&A

Mrs **Jessica REIS LEFFERS**, Dutch Ministry of the Environment, explained that the Dutch Presidency has worked on the circular economy package. She seized the opportunity to invite participants to a Conference organised in [Rotterdam on 8-9 December](#) 2016.

Closing Remarks

Mrs **Gesine MEISSNER**, MEP, Chair of the SEARICA-Intergroup, stressed that whilst what she had heard was promising (many efforts, investments), as Mrs Gruber said, it is not enough.