SDGs and Climate Change
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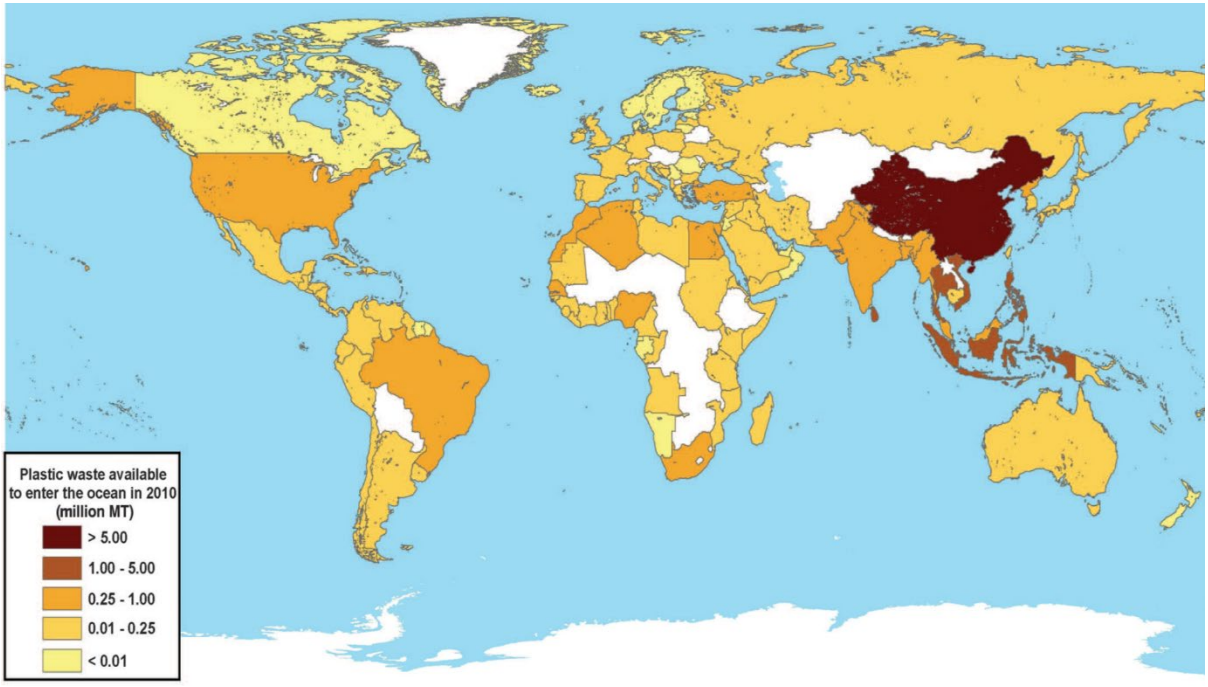
UN TRADE FORUM

In praise of plastics – and notes on how to persuade people + policymakers

11 September 2019 morning

1200 words



Our love affair with plastics is far from over. If we did nothing, the amount of plastics that could enter the oceans is predicted to increase tenfold by 2025, says the UK's Alessandro Moscuzza. As it is, at least one plastics swamp in the oceans is the size of Spain.

Half consumer plastics used once

But 50% of consumer plastics are used just once, the Senior Climate Change and Environment Adviser in the U.K.'s Department for International Development (DFID) told a meeting in Geneva on 11 September.

Altering hormones

Yet 93% of people in the U.S. aged six or older have tested positive for an industrial chemical used to make certain plastics, and some of these compounds have been found to alter hormones or have other potential effects on human health, Moscuzza told the meeting organized by the United Nations Conference on Trade and Development (UNCTAD).

Why is breaking up so hard to do?

So what makes it so difficult to wean ourselves off plastics? Or stop its impact on the ocean? Well, there's lot to be said for plastic. "Plastic is a very durable and versatile material, which has found many uses and applications in everyday life," notes Moscuzza.

Plastics bring value

Michael Saltzberg of DuPont Biomaterials also told the first UN Trade Forum: “Plastics bring a lot of value”. Bottled water, for example. “PET bottles are recyclable, unbreakable, and conveniently re closable,” he observed.

Well, he would say that, wouldn’t he – coming from a chemicals company? you might observe. But not quite.

He also told a session on plastics and the ocean: PET bottles cannot keep fresh the carbonated drinks we adore. So carbonated-cola bottles use 10-30% more plastic than simple water bottles.

There are alternatives to PET

And Dr Saltzberg’s point is that there are alternatives that, for producers, cost no more but spare the environment: the extra costs of ingredients that go into the substitutes are matched by reductions in the costs of the plastics used (more later).

Waste management is the big issue

But the problem isn’t just plastics made from fossil fuels. It’s waste management systems, says Moscuzza. Of the 20 countries producing plastic wastes, 19 are in the developing world (the other is the USA). If the European Union countries were bundled together, the wastes from their 300 million people would be equivalent only to Morocco’s 17 million population.

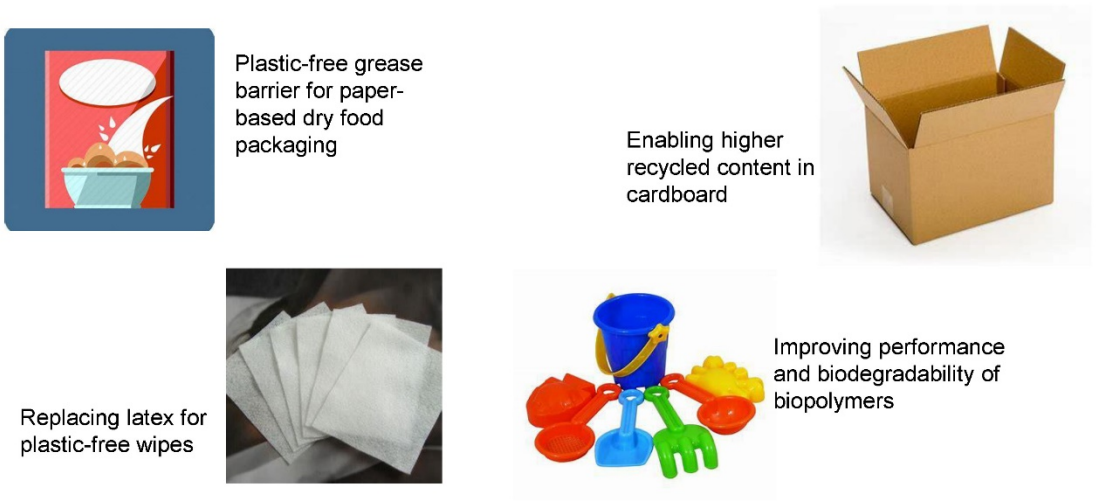
PEF with PET

DuPont’s alternatives include a new pol mer PEF from corn starch. Blended with PET, PEF reduces the plastic required by 10-20% and – important for quick adoption – its bottles can be recycled in the existing PET stream, Saltzberg, DuPont’s Biomaterials Global Business Director, stated.

Polysaccharides

But what excites him more are polysaccharides, which his DuPont research group has been working on for more than nine years. “Microbes recognize them as food,” he says. Paper and cotton are made from cellulose, a natural material composed of sugars, and engineered polysaccharides could have the same qualities. They can be made from sugar cane or beet and the process is low-energy and produces almost no waste, he said. Thus, these polysaccharides could be found in:

- Plastic-free grease paper for paper-based dry food packaging
- Higher recycled content in cardboard (enabling it to be recycled 20 times)
- Replacing latex for plastic-free wipes
- Improving the biodegradability of biopolymers used, for example, in toys.



Materials innovation is not the answer

Dr Saltzberg insisted: “We are not offering a boutique solution. Materials innovation is not the answer to this problem. But I do think that by moving from fossil-based materials, we can deliver the same freshness, the same convenience that consumers want.”

Alliance to End Plastic Waste

Mr. John Revess, Director for Plastics and Packaging in the Geneva-based World Business Council for Sustainable Development, said the new business Alliance to End Plastic Waste is already working on 11 projects, five already approved, with many more applications still on its plate.

Global Information Platform

The five approved programmes relate to an open-sourced Global Information Platform to “benchmark how big the problem is and the progress we are making to solving it”. He observed that even at this meeting the amounts of plastic waste reaching the oceans varied between 8 and 12 million tonnes a year.

Details still being worked out

Another project is with the World Economic Forum in Indonesia. With National Geographic it is working on a Renew Oceans programme. A major “strategic capital” player is working on a fourth programme, and the United Nations is likely to be a key partner in other work, though he could not yet give details of these projects until the details have been worked out.

Major amounts still in reserve

The additional six projects included chemical recycling, waste management (in China and Africa), and the role of innovation. But the Alliance, to be based in Singapore, had the cash and “we have yet to commit the majority of funds we have”, he said. “We are looking for partners to identify the solutions that need to be invested in.”

Plastics now in Basel pact

Kei Ohno Woodall, Senior Programme Officer for the Geneva-based Basel, Rotterdam and Stockholm Conventions, said a plastics addition to the Basel Convention banning export of wastes without prior approval by both sides now had enough ratification to come into effect in January 2021, 35 years after the pact was signed.

Plastic waste in oceans 'solvable'

Its statement on wastes asserts that though 80-90% of the plastic in the seas comes from land-based sources, "since an estimated 80% of that land-based waste is due to a lack of efficient collection and management schemes, the problem is solvable".

Plastic waste partnership

A May 2019 meeting "adopted landmark decisions on plastic waste" to make global trade in plastic waste "more transparent and tightly regulated". It also established a Plastic Waste Partnership to bring together business, government, academia and civil society "to tackle the growing problem of plastic waste".

The importance of media and science

Ms Woodall added: "I would like to highlight the power of media and the power of science" in achieving action. The Trade Forum invited Julian Hector, Head of BBC Natural History Unit, to make the opening presentation on plastics in the oceans. He said the programme that brought attention to ocean plastics into the British political arena, Blue Planet 2, became the most watched show on television, and reached 60% of the population.

Inspiring policymakers

"The Blue Planet programme inspired a lot of us," said Moscuzza. It was the main topic of office conversation on the morning after its Sunday showing. Professor Lisa Emberson, Director of the Stockholm Environment Institute, said YouTube videos on their programmes about manufacturing pollution in sub-Saharan Africa and South Asia achieved great responses on the ground.

'Toxic time bomb'

The BBC official noted he had seen plastics damage to a seal and albatross even in 1981 when working as a biologist in South Georgia near to Antarctic. He warned that some scientists were also speaking of "a toxic time bomb" from the accumulation of plastic chemicals in the environment. "Not much is known about the impact," he reminded delegates.

Increasing knowledge and awareness

Ms Woodall underlined that bringing producers, users and disposers together, along with science policy discussions, covered by media, add knowledge and awareness of the issues. She also spoke in favour of multilateralism to spread results.

Our earlier story on plastics and the ocean: no easy answers.