

Fixing Fashion: Follow up inquiry

Environmental Audit Committee

12th November 2020

The Marine Conservation Society (MCS) welcomes the opportunity to respond to this important consultation. We have provided answers to a sub-section of the outlined questions where it feels as an organisation, we have expertise that is relevant. We also note that a lack of transparency on broader issues, such as human rights and labour violations, usually are associated with poor environmental outcomes. We support ambition towards improving human rights and drive equity regardless of race, religion or sexual orientation.

MCS's response below relates closely to question 8 on additional targets to reduce harmful chemicals and microplastics, which should be included under the Sustainable Clothing Action Plan.

Each year, 65 million tonnes of plastic fibres destined for textiles are produced (2016 data).¹ Globally, in 2017, around 70% of fibres were synthesised chemically². Textiles (including industrial textiles) comprise approximately 15% of the world's annual output of plastics³ with 69.7 Mt fibres produced each year⁴. Textiles are therefore a significant contributing source of plastic pollution. In addition, the fashion industry accounts for 10% of annual global carbon emissions- greater than all international flights and maritime shipping combined.⁵

It is estimated that 12.2 million tonnes of plastic enter the ocean every year, with 0.95 billion tonnes of this entering as "primary microplastics"⁶. Primary microplastics are those which are produced as 5mm or less in size, unlike plastics smaller than 5mm in size resulting from the gradual breakdown of larger plastic items (secondary microplastics). Microfibres are a significant contributor to primary microplastic pollution in the ocean, and they're being produced on a massive scale. Research conducted by the IUCN estimated that primary microplastics account for between 15-31% of all microplastics in the ocean⁷; with those resulting from the laundry of textiles comprising 35%⁸ of this. 5.6 Mt of microfibres were emitted 1950-2016 globally with half of that in the last decade⁹. A recent study published in *Science*, which tested sediment cores, found that fibres make up the majority of all microplastics found in deep sea sediments. Samples from the study showed fibres accounting for 70-100% of all microplastics, with up to 1.9 million pieces of microplastic found per square metre¹⁰.

The ingestion of microplastics by marine organisms has been shown to negatively impact feeding behaviour, growth, development, reproduction and lifespan¹¹. Estimates of the economic impacts of

¹ https://www.thefiberyear.com/fileadmin/pdf/TFY2017_TOC.pdf

² https://www.boell.de/sites/default/files/2020-01/Plastic%20Atlas%202019%202nd%20Edition.pdf?dimension1=ds_plastic_atlas

³ https://www.boell.de/sites/default/files/2020-01/Plastic%20Atlas%202019%202nd%20Edition.pdf?dimension1=ds_plastic_atlas

⁴ <https://www.iucn.org/content/primary-microplastics-oceans>

⁵ <https://www.worldbank.org/en/news/feature/2019/09/23/costo-moda-medio-ambiente>

⁶ <https://www.eunomia.co.uk/reports-tools/plastics-in-the-marine-environment/>

⁷ <https://www.iucn.org/content/primary-microplastics-oceans>

⁸ <https://www.iucn.org/content/primary-microplastics-oceans>

⁹ <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0237839>

¹⁰ <https://science.sciencemag.org/content/early/2020/04/29/science.aba5899.full>

¹¹ <https://www.sciencedirect.com/science/article/pii/S0269749118333190>

microplastics on the UK aquaculture (oyster) industry in the English Channel were made by “MICRO Project¹²” and indicated an annual cost between £1.5M - £500M¹³.

To achieve truly ambitious reductions in microplastics and harmful chemicals, we recommend that the SCAP is amended as follows:

Test for microfibre loss (including plastic and semi-synthetic): Synthetic microfibres are generated through fragmentation and degradation of textiles. MCS calls for a standard test for microfibre loss for fashion textiles to be introduced by the end of 2022. All garments should be tested and a road map of removing the worst performers. Customers should also be provided information on the garment microfibre shed load.

Microfibre filters fitted to discharge sources (water and air). Sources of discharge should be investigated and identified with an action plan to reduce throughout the supply chain. Microfibre filters to water discharges should be fitted by 2024 to all factories. Companies should also support and financially contribute to development of a PAS standard for washing machine microplastic fibre filters to help mitigate against the pollution caused by their garments.

Supply chain certification for pellet loss with operation clean sweep. Reducing microplastic pollution isn't just about microfibres. Currently Operation Clean Sweep is the only international initiative, led by the plastics industry, that provides guidelines for best practice to prevent pellet loss¹⁴. However, despite this initiative running a number of years, it is estimated (in 2016) that up to 53 billion pellets annually are lost to the environment in the UK alone¹⁵, with an estimated 230 000 tonnes of pellets are lost every year globally during the production of plastic products – equivalent to around 15 billion plastic bottles¹⁶. This could be rapidly cut by 95% if the right solutions are implemented¹⁷. Therefore, UK and international projects are currently underway to create a supply chain accreditation approach to tackle pellet loss, using standards and certification schemes to allow retailers and brands to ensure pellet loss-free supply chains. For example, BSI (an international standard setting body) is currently developing a PAS (Publicly Available Specification), expected to be available in 2021¹⁸. This will create a standard against which companies can be audited to verify they are implementing best practice effectively and is the first step toward creating a supply chain certification.

Targets for removal of persistent chemicals such as PFAS (Per- and poly- fluorinated alkyl substances) from use in water repellent and stain resistant finishes. We would like to see quicker progress in the removal of all PFAS from clothing finishes. When garments that have finishes containing PFAS, are washed, the coating can be washed off and cannot be currently removed by standard waste water treatment.¹⁹ Therefore, PFAS end up being released into the environment, where they will remain for many years without degrading. The high persistence of PFAS in the environment means the chemical contamination will far outlive the product they were originally part of. There are alternative chemical treatments that don't involve the use of fluorinated substances including those based on silicone and paraffin²⁰ and some manufacturers are developing materials that don't require chemical treatment in

¹² <http://www.ilvo.vlaanderen.be/micro>

¹³ <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environmental-audit-committee/environmental-impact-of-microplastics/written/31827.pdf>

¹⁴ https://www.bpf.co.uk/sustainability/operation_clean_sweep.aspx

¹⁵ https://www.nurdlehunt.org.uk/images/Leaflets/Report_briefing.pdf

¹⁶ <https://www.eunomia.co.uk/marine-plastics-we-should-fight-them-on-the-beaches/>

¹⁷ <https://eia-international.org/wp-content/uploads/Policy-Primer-2019.03.01-Towards-a-Regulatory-Approach-for-Pellets-in-EU.pdf>

¹⁸ <https://www.britishplastics.co.uk/Environment/first-specification-to-prevent-plastic-pellet-pollution/>

¹⁹ Brendel, S., Fetter, E., Staude, C., Vierke, L, Biegel-Engler, A., (2018) Short-chain perfluoroalkyl acids: environmental concerns and a regulatory strategy under REACH, Env. Sci. Eur., 30.

²⁰ Poulsen, P. B., Jensen, A. A., (2005) More environmentally friendly alternatives to PFOS-compounds and PFOA, Danish Ministry of the Environment.

order to be waterproof.²¹ MCS are concerned about the use and release of PFAS into the environment because it can persist for so many years and their effects have been linked to effects on immune, blood, kidney and liver function of marine mammals such as bottlenose dolphins.²² Therefore, MCS are calling for all PFAS to be removed from clothing by 2022 and all other non-essential uses by 2024.

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²¹ <https://www.wired.com/story/pfas-free-waterproof-apparel/>

²² Fair, P. A., et al. (2013) Associations between perfluoroalkyl compounds and immune and clinical chemistry parameters in highly exposed bottlenose dolphins, *Environmental Toxicology and Chemistry*, 32.