

# COMMUNITY OF PRACTICE ON CHEMICALS IN PRODUCTS

Organized by the SAICM Secretariat and the University of Cape Town

Issue: 3 of 2020

Discussion date: 10<sup>th</sup> December 2020

## Discussion digest

### Topic of Discussion: Managing PFAS as a Chemical Class in the Textiles Sector

The textile industry, as one of SAICM’s priority sectors, uses a large amount of chemicals across the production stages to achieve various appearances, quality, and functions in products. PFAS--a large chemical class characterized by toxicity, persistence, mobility, and the ability to bioaccumulate-- are widely used in this sector. With growing global attention and efforts on eliminating PFAS, a class-based approach is considered efficient and effective.

The intention of this discussion is to identify the best approach to reducing PFAS exposure and pollution associated with the textile sector, with the focus on why and how PFAS should be managed as a chemical class in the textile sector.

### ABOUT THE PRESENTER

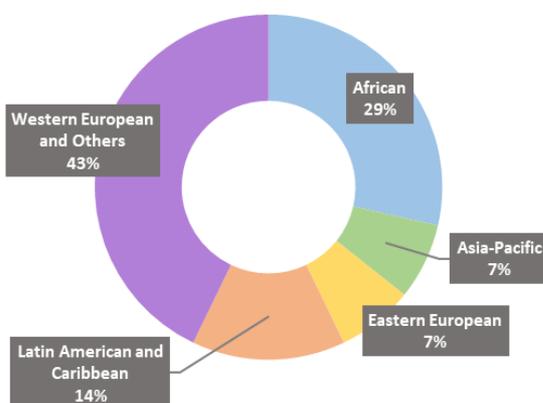


**Yiliqi** leads a green supply chain initiative at NRDC, which calls on corporations to take responsibility for environmental impact of their supply chain, especially their manufacturers located abroad. Her current work focuses on addressing the environmental impacts of the textile industry. She holds dual bachelor’s degrees in Environmental Science and Public Relations from East China Normal University and a master’s degree in Environmental Policy Design from Lehigh University. She is based in Washington, D.C.

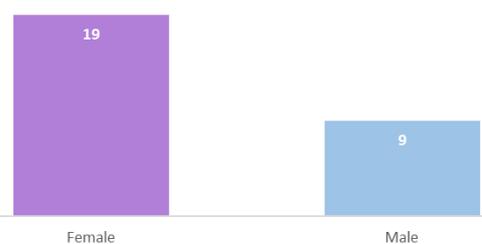
### DISCUSSION 3 ATTENDANCE BREAKDOWN

TOTAL ATTENDEES FOR DISCUSSION 3: 28

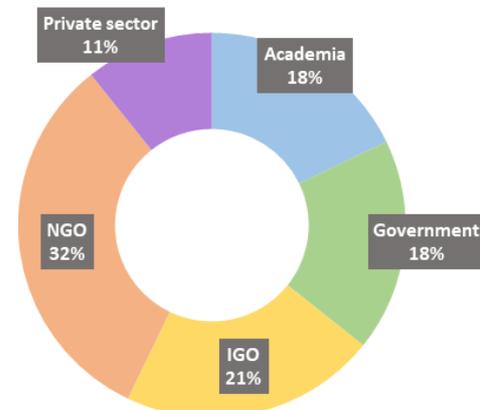
#### Regional representation



#### Gender representation



#### Sector representation



Key:  
 IGO – Intergovernmental organisation  
 NGO – Non-governmental organisation

## Chemicals in Products Community of Practice Discussion 3 Summary and looking ahead

1. The discussion highlighted that **many countries are importing products containing PFAS** but not necessarily manufacturing these products. What was highlighted is that there are many steps in the manufacturing process and often PFAS is used in the beginning steps but may not necessarily be mentioned as a chemical in the end product. Therefore, there could be a number of products being imported that contain PFAS but governments and regulators may be unaware of. For many participants, the **class-based approach to manage PFAS** was new and it was noted that research and development, awareness raising, and capacity building were the main needs for many countries when considering this topic.
2. A key point raised by participants was **the role of multinational brands and their responsibilities in eliminating or replacing PFAS with safer alternatives**. The success in PFAS elimination needs to be achieved with global efforts that includes all stakeholders. There is a need to communicate to a wide range of stakeholders in a country that there are many steps in the manufacturing process that could result in importing products that contain PFAS.
3. When it comes to **essential functions of PFAS** many participants stated that fire-resistant materials and health care equipment would be included as essential uses in countries. It was highlighted that while alternatives to PFAS do exist, some of these alternatives have not been well studied in terms of health and environmental impacts. Thus, there is still a **need for safe alternatives to PFAS**. It was emphasized that managing and restricting PFAS as a chemical class could prevent the substitution of a few of the regulated PFAS with another type of PFAS that have similar negative impacts on public health and environment. Many participants expressed that current PFAS uses in countries should not be considered essential as either safer alternatives exist for those uses, or the health and environmental impact of PFAS is too great to be considered essential.

## ANNEX

### DETAILED SUMMARY OF DISCUSSION:

**Disclaimer:** The information in this digest represents the opinions of members participating from different stakeholder groups expressed during the discussion. The views expressed in this document do not necessarily represent the opinion or the stated policy of the United Nations Environment Programme, the SAICM Secretariat, the GEF or UCT, nor does citing of trade names or commercial processes constitute endorsement.

### THE DISCUSSION WAS STRUCTURED AROUND THREE QUESTIONS AND THE KEY DISCUSSION INPUTS FROM PARTICIPANTS ARE PRESENTED UNDER EACH:

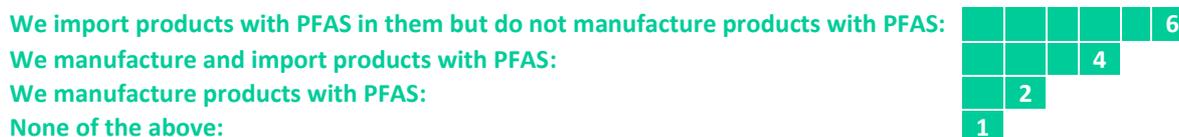
#### Q1. How are PFAS actively monitored and managed in your country, regions, or sector? What have been the accomplishments and challenges in your related work?

<b>ARMENIA</b> (NGO)	<ul style="list-style-type: none"><li>- PFAS are not actively monitored in Armenia.</li><li>- Management is in frame of general chemicals management.</li><li>- General awareness about this class of chemicals and public demand for info (labelling) is the starting point.</li></ul>
<b>BANGLADESH</b> (NGO)	<ul style="list-style-type: none"><li>- PFAS is the new issue in Bangladesh.</li><li>- It has been found in textile wastewater and industries waste water.</li></ul>
<b>FINLAND</b> (Government)	<ul style="list-style-type: none"><li>- PFAS are regulated in Finland as per the EU REACH regulation.</li><li>- Restrictions on PFOS and PFOA and its related chemicals, and C6 siloxanes are already in place under REACH.</li><li>- PFOS and its salts are listed in Annex B to the Stockholm Convention and PFOA, its salts and related compounds are listed under Annex A.</li><li>- Monitoring assessments are conducted – e.g. PFAS levels in commercially relevant fresh and seawater fish species were investigated during 2009–2010 and 2016-2017.</li><li>- This programme is relevant for studying bioaccumulation of PFAS in biota.</li><li>- Main challenge is the unknown PFASs.</li><li>- Analytical methods are available only for partial PFAS homologues, so the determination of all PFASs has been a challenge.</li><li>- Research is being carried out to address these knowledge gaps in Finland and internationally.</li></ul>
<b>GERMANY</b> (NGO)	<ul style="list-style-type: none"><li>- REACH includes some substances but not all of them.</li><li>- There are EU-lists for substances of concern (which are not binding).</li><li>- A proposal for ban of PFAS and PFOA within EU came only this year (from five countries), but there are still discussion on Chromtrioxid (<a href="https://echa.europa.eu/de/-/five-european-states-call-for-evidence-on-broad-pfas-restriction">https://echa.europa.eu/de/-/five-european-states-call-for-evidence-on-broad-pfas-restriction</a>).</li></ul>
<b>IRAN</b> (Academia)	<ul style="list-style-type: none"><li>- PFAS can be found in products for outdoor gear to anti-stick cookware, ski wax, grease-proof food wrapping, ball bearings, and lubricants.</li><li>- PFASs – shorthand for per- and polyfluoroalkyl substances – mostly end up getting into the environment.</li><li>- Lots of academic papers started to publish but have not heard yet about any regulations and enforcement here.</li></ul>
<b>SOUTH AFRICA</b> (Academia)	<ul style="list-style-type: none"><li>- South Africa is banning the use and importation of PFAS because they do not use or manufacture with PFAS!</li><li>- Problem is that many products containing PFAS are imported with no system in place for managing chemicals in products.</li><li>- Challenge in South Africa is that government feels removing products with PFAS would severely impact on the economy and poor populations.</li><li>- A lot of "awareness raising" is needed for the decision makers.</li></ul>
<b>SWEDEN</b> (Government)	<ul style="list-style-type: none"><li>- Fire-fighting foams is an important emission source, at least historically.</li><li>- EU has restrictions on the use of some PFAS and restrictions on more are under preparation EU PFAS ban.</li><li>- Class-based approach can be for the whole PFAS group or only part – e.g. lon-chain.</li></ul>
<b>SWITZERLAND</b> (IGO)	<ul style="list-style-type: none"><li>- PFOs are listed under Annex B of the Stockholm Convention, and PFOA are listed under Annex A of the Stockholm Convention.</li></ul>

Throughout the discussion, informal polls were conducted to help encourage discussion among the participants. They do not provide any representative data.

**Poll 1 Results (N=13)**

How are PFAS used in your country?



**Poll 2 Results (N=8)**

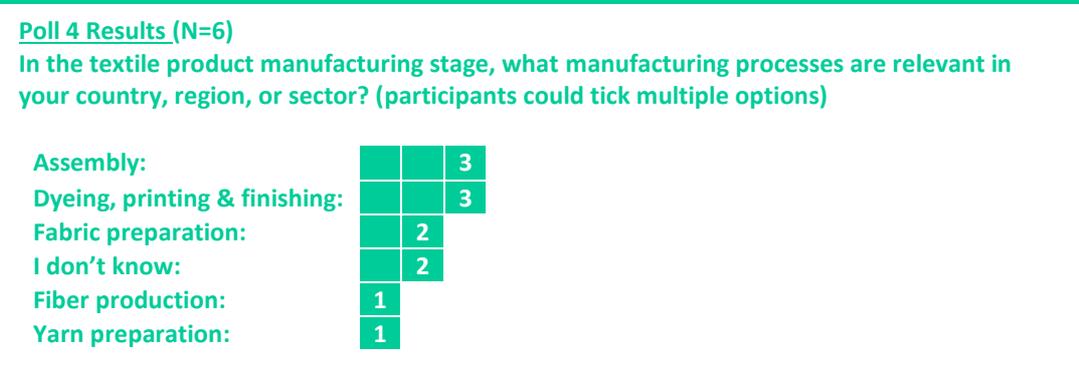
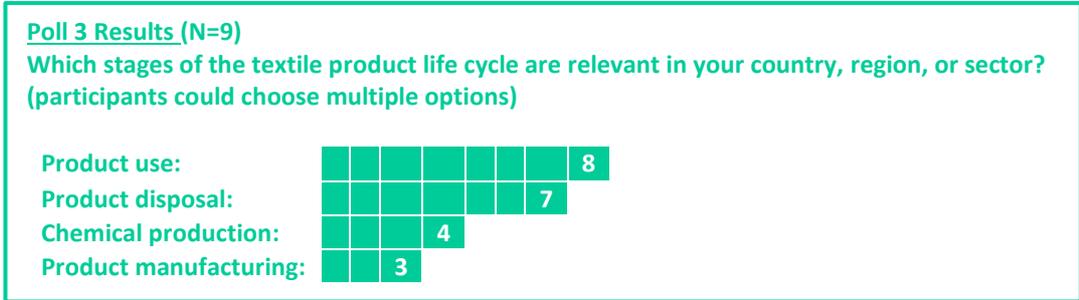
Are you implementing the class-based approach in managing PFAS?



**Q2. Who are the stakeholders involved in managing PFAS emissions and exposure either from applying PFAS in the manufacturing process or from using a product containing PFAS? What actions have these stakeholders undertaken to deal with this issue?**

- |                                      |   |
|--------------------------------------|---|
| <b>BANGLADESH</b><br>(NGO)           | <ul style="list-style-type: none"> <li>- PFAS are unregulated, however, currently existing laws could be used to regulate them.</li> <li>- PFAS monitoring, especially near industry locations, would help establish an initial inventory of hotspots.</li> <li>- The textile industry is potentially an important sector for PFAS use and releases.</li> <li>- The presence of high PFAS levels downstream of the Dhaka EPZ and the Adamjee EPZ indicates that PFAS substances are being used and released by Bangladesh suppliers making clothing for major US and EU brands.</li> <li>- This links major global consumer clothing brands to PFAS pollution in Bangladesh.</li> </ul> |
| <b>FINLAND</b><br>(NGO)              | <ul style="list-style-type: none"> <li>- Stakeholders involved in managing PFAS emissions must be National Chemical Safety Agencies, PFAS producers (exporter and importers); occupational health workers (e.g., firefighting officers), and product consumers.</li> <li>- Finnish Safety and Chemicals Agency, Finnish Environmental Institute and The Ministry of Social Affairs and Health with several other expert institutions look into the monitoring and exposure assessment part of this area.</li> <li>- Multinational brands must start a transition to substitutes of PFAS.</li> <li>- This will require innovation.</li> </ul>  |
| <b>GERMANY</b><br>(NGO)              | <ul style="list-style-type: none"> <li>- The European Commission launched an online consultation on PFAS-ban with the proposal for coming from five member states.</li> <li>- After the open consultation, the positions of the industry and the environmental groups will be gathered.</li> <li>- There are discussions about exceptions for some substances like Chromtrioxid.</li> <li>- The goal is to ban PFOS.</li> </ul>   |
| <b>HONG KONG</b><br>(Private sector) | <ul style="list-style-type: none"> <li>- Academia and research organizations should also be involved.</li> <li>- Coastal research should be considered to try to see correlation between industry cluster and type of PFAS being detected in the waterways.</li> </ul>  |
| <b>IRAN</b><br>(Academia)            | <ul style="list-style-type: none"> <li>- Two years ago, the problem of PFAS was put forward.</li> <li>- There have been many stakeholders involved globally, however, most being in the US.</li> <li>- In the US with the Congress back in DC, it would be time to demand action on PFAS pollution!</li> </ul>  |
| <b>JAMAICA</b><br>(NGO)              | <ul style="list-style-type: none"> <li>- There is need for the regulation of chemicals in Jamaica.</li> <li>- Existing regulations speak to Pesticides and Pharmaceuticals, however, the issue of PFAS should be seen as one of importance at this time.</li> </ul>   |

- Stakeholders that should be a part of the discussion for the monitoring of PFAS are agencies under Health, Environment, Commerce, Academia and NGOs with relevant background knowledge and expertise.
- SOUTH AFRICA**  
(Academia)
- Opinions currently are that there is so much research on PFAS, and the conclusions and effects are clear enough that people should not be doing any more research!
  - Regulators need to focus on removing PFAS from products.
  - A complexity in South Africa and other low- and middle-income countries is researching children's PFAS exposures (dust in homes) in poor communities where the exposures may well be high.
  - The key trigger to get multinational brands to change are the consumers.
  - Risk communication efforts for consumers are therefore vital.
- SOUTH AFRICA**  
(Government)
- Government see PFAS separately from HHP's so awareness raising is needed around PFAS.
  - PFAS emissions are monitored by the Department of Environment, Forestry & Fisheries through the National environmental management: Waste act.
- SWITZERLAND**  
(IGO)
- UNEP report on textile value chain:
  - <https://www.oneplanetnetwork.org/new-report-launched-sustainability-and-circularity-textile-value-chain>
  - Further information on textile value chains: <https://www.oneplanetnetwork.org/unep-textile-value-chain>



**Q3. Which product functions that PFAS provide are essential in your country? List which safer alternatives are available in your country. What are the barriers to eliminating the use of PFAS in textile products?**

- CANADA**  
(NGO)
- It is important to disclose information on PFAS in textile on product labels.
  - Consumers are not able to have a right to choice if no information is provided.
  - There is a new report by Health and Environment Justice Support that could be of interest: New Report: Sustainable Fashion? How companies provide sustainability information to consumers <https://hej-support.org/new-report-sustainable-fashion-how-companies-provide-sustainability-information-to-consumers/>
  - Legislation is the key to disclose hazardous chemicals in products.
- FINLAND**  
(NGO)
- The essential use categories are still being discussed in Europe.
  - Understanding is that at least cosmetics, textiles, and the food packaging industry could and should eliminate PFAS use as there are available alternatives on the market.
  - Essential use would include medical use.
  - PFAS use in skis was in the news in Finland some months back and would also see a ban coming in.

	<ul style="list-style-type: none"> <li>- For fire foams there are PFAS free foam alternatives available, but how quickly they will replace PFAS foams, is still in question.</li> <li>- PFAS use in drugs and medical equipment is known, but there is little information on exposure via these routes.</li> </ul>
<b>GERMANY</b> (NGO)	<ul style="list-style-type: none"> <li>- Essential uses are for fire-foams and fire protective clothes.</li> <li>- There is an issue of alternative materials substituting PFAS (and PFOA) with toxicological properties that are not known yet.</li> <li>- There is a need for safe alternatives.</li> </ul>
<b>Hong Kong</b> (NGO)	<ul style="list-style-type: none"> <li>- Consider essential function to be linked to life and death</li> <li>- The question should be expanded – “ABC function is essential which is achieved by PFAS, while poisoning our water/fish/soil and ultimately harming humans. Is this acceptable?”</li> <li>- By adding the essential information (in this case, harm from PFAS), the perspectives will change.</li> </ul>
<b>IRAN</b> (Academia)	<ul style="list-style-type: none"> <li>- Thirteen companies explicitly stated that functionally equivalent alternatives to PFAS exist, and these companies already have such alternatives in use.</li> <li>- <a href="http://www3.cec.org/islandora/en/item/11777-furthering-understanding-migration-chemicals-from-consumer-products-en.pdf">http://www3.cec.org/islandora/en/item/11777-furthering-understanding-migration-chemicals-from-consumer-products-en.pdf</a></li> </ul>
<b>JAMAICA</b> (NGO)	<ul style="list-style-type: none"> <li>- The cloth manufacturing industry is of interest to the economy.</li> <li>- <a href="https://www.joc.com/maritime-news/jamaica-promotes-caribbean-textiles_19880317.html">https://www.joc.com/maritime-news/jamaica-promotes-caribbean-textiles_19880317.html</a></li> <li>- Health impact and the environment is not considered in the discussion about foam for firefighters.</li> <li>- import and export in terms of trade plays an important role as to what come in and leave countries.</li> </ul>
<b>NRDC</b> (NGO)	<ul style="list-style-type: none"> <li>- Function that is surprising is PFAS on swimwear to achieve increased speed.</li> <li>- Another use that has not been discussed much is the stain-resistant function for kids' uniform.</li> <li>- These functions do not seem essential.</li> <li>- The easiest item to be listed as critical exemption is medical gears.</li> <li>- China required people to dispose medical gears used in both hospitals and households as hazardous wastes.</li> <li>- Not all households may be following that.</li> </ul>
<b>SOUTH AFRICA</b> (Academia)	<ul style="list-style-type: none"> <li>- South Africa imports many products from all over the world, and it is difficult to know which products have PFAS in them.</li> <li>- Assumption that in South Africa many fabrics used on furniture are coated or treated to be stain resistant.</li> </ul>
<b>SOUTH AFRICA</b> (Government)	<ul style="list-style-type: none"> <li>- South Africa is banning the manufacture and use of PFAS but still import MANY products containing PFAS.</li> <li>- There are no regulations on this, such as listing which imported products contain PFAS and excluding them from import.</li> <li>- Better awareness around the possible dangers would go a long way.</li> </ul>
<b>SWEDEN</b> (Government)	<ul style="list-style-type: none"> <li>- The Swedish Chemicals Agency did a study in 2015 <a href="https://www.kemi.se/en/publications/reports/2015/report-7-15-occurrence-and-use-of-highly-fluorinated-substances-and-alternatives">https://www.kemi.se/en/publications/reports/2015/report-7-15-occurrence-and-use-of-highly-fluorinated-substances-and-alternatives</a></li> <li>- The question of 'essential use' is not trivial, the EU commission discusses it in the action plan on PFAS with links to further information <a href="https://www.google.se/url?sa=t&amp;source=web&amp;rct=j&amp;url=https://ec.europa.eu/environment/pdf/chemicals/2020/10/SWD_PFAS.pdf&amp;ved=2ahUKEwiowuif2cPtAhVwxIsKHYk4AKAQFjAAegQIBBAC&amp;usg=AOvVaw1eTwewEp944iTEk2klsaOv&amp;cshid=1607613060229">https://www.google.se/url?sa=t&amp;source=web&amp;rct=j&amp;url=https://ec.europa.eu/environment/pdf/chemicals/2020/10/SWD_PFAS.pdf&amp;ved=2ahUKEwiowuif2cPtAhVwxIsKHYk4AKAQFjAAegQIBBAC&amp;usg=AOvVaw1eTwewEp944iTEk2klsaOv&amp;cshid=1607613060229</a></li> <li>- If large volume uses (e.g., in normal clothing) are banned the unit cost of PFAS will go up and the market availability in the longer term will go down which will be a driver for substitution in non-essential uses.</li> </ul>

### Poll 5 Results (N=6)

#### What function is PFAS providing in various textile products?

#### Some suggestions from participants included:

“Firefighting risk reduction”

“Water and heat-resistance”

“Grease resistant”

“Protection from water/liquids, oil, and fire in professional and sport gear”

“Potentially in color enhancing”

#### Poll 6 Results (N=6)

What products should be considered as critical exemptions?

Some suggestions from participants included:

“None – the risk outweighs the benefits”

“Lab equipment for emergency uses – while continuing to look for alternatives to phase out”

“Medical equipment”

“Firefighting and medical gear used for protection”

#### Helpful resources:

- **Perfluoroalkyl chemicals (PFAS):** <https://echa.europa.eu/hot-topics/perfluoroalkyl-chemicals-pfas>
- **Green Deal: Commission adopts new Chemicals Strategy towards a toxic-free environment:** [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_1839](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1839)
- **The Scientific Basis for Managing PFAS as a Class:** <https://pubs.acs.org/doi/10.1021/acs.estlett.0c00255>
- **California Safer Consumer Product Program: Product – Chemical Profile for Carpets and Rugs Containing Perfluoroalkyl or Polyfluoroalkyl Substances:** [https://dtsc.ca.gov/wp-content/uploads/sites/31/2020/02/Final\\_Product-Chemical\\_Profile\\_Carpets\\_Rugs\\_PFASs\\_a.pdf](https://dtsc.ca.gov/wp-content/uploads/sites/31/2020/02/Final_Product-Chemical_Profile_Carpets_Rugs_PFASs_a.pdf)
- **Are fluoropolymers really of low concern for human and environmental health and separate from other PFAS?:** <https://pubs.acs.org/doi/10.1021/acs.est.0c03244>
- **The concept of essential use for determining when uses of PFASs can be phased out:** <https://pubs.rsc.org/en/content/articlelanding/2019/em/c9em00163h#!divAbstract>

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**CiP CoP:** The Secretariat of the Strategic Approach to International Chemicals Management (SAICM) and the Environmental Health Division at the University of Cape Town (UCT) created this Community of Practice (CoP) to foster online discussions and address key issues on Chemicals in Products (CiP) among stakeholders from governments, international organizations, industry, academia and civil society.

This CoP is contributing to the SAICM/GEF project on Emerging Chemicals Policy Issues Knowledge Management Component. This activity is supported by the Global Environment Facility (GEF) project ID: 9771 on *Global Best Practices on Emerging Chemical Policy Issues of Concern under the Strategic Approach to International Chemicals Management (SAICM)*.

If you have any question or require clarification on this initiative, please contact the SAICM Secretariat at [saicm.chemicals@un.org](mailto:saicm.chemicals@un.org) or UCT at [uctcops@outlook.com](mailto:uctcops@outlook.com).

Join the CiPs CoP at: <https://saicmknowledge.org/community>

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