Using Best Available Techniques (BAT) to combat harm caused by pollution in the textiles sector

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Partner(s)
OECD Environment Directorate

Objective of the session
This session will provide an introduction to policies and practices based on Best Available Techniques (BAT) for preventing and controlling industrial pollution, and their relevance to textile companies sourcing across global supply chains. It will highlight current efforts to strengthen the use of BAT to reduce emissions from the garment and footwear sector, with examples of collaborative approaches in the EU, South-East Asia and the wider Mediterranean region. The discussion will also touch upon opportunities and challenges of current BAT policies, such as the need for enhanced alignment in the procedures to establish BAT, as well as key considerations for assessing the effectiveness of BAT policies and their implementation in the textiles sector.

Moderator:
- Marit Hjort, Policy Analyst, OECD Environment Directorate

Speakers:
- Katja Kraus, Senior Scientist, German Federal Environment Agency
- Roberta De Palma, Chief Technical Advisor on Cleaner Production, UNIDO
- David Hanrahan, Senior Advisor, PureEarth
- Christian Schaible, Policy Manager for Industrial Production, European Environmental Bureau
- Mauro Scalia, Director Sustainable Businesses, EURATEX
Background

With a highly complex set of production processes, the garment and footwear industry is one of the most polluting industries in the world. Notably, the production of textiles poses a high risk of release of hazardous chemicals to water, particularly through processes such as wool scouring, wet treatment, desizing, bleaching, mercerising, dyeing, printing, washing and finishing treatment. The World Bank estimates that 17-20% of industrial water pollution comes from dyeing and finishing treatment given to fabrics. Modelling undertaken by Eunomia and by IUCN suggests that (synthetic) textiles are particularly important sources of microplastics, accounting for 20-35% of the microplastics that enter the oceans each year. Other environmental issues associated with textile manufacturing include energy and water consumption, air emissions, solid wastes and odours.

The Best Available Techniques (BAT) concept is an evidence-based, multi-stakeholder policy tool to prevent and control the emission of pollutants to air, water and soil from the world’s most polluting industries, including the garment and footwear sector. BAT can be defined as "the most effective and advanced stage in the development of activities and their methods of operation, indicating the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where this is not practicable, to reduce emissions and the impact on the environment as a whole" (Industrial Emissions Directive, European Union).

By implementing BAT policies, governments and industry enable a high level of environmental and human health protection and contribute to achieving progress towards essential Sustainable Development Goals, notably Target 12.4 on the environmentally sound management of chemicals and waste. The OECD Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector recommends the adoption of BAT for enterprises to cease, prevent or mitigate harm associated with the release of hazardous chemicals, excess water consumption, and pollution and wastewater management. Further, the enforcement of BAT-based emission standards ensures a level playing field for industry and fosters more efficient operations.

BAT form the basis of legally binding emission limit values in integrated environmental permits for the textiles industry in a wide range of countries. The process to determine BAT and associated emission levels is based on evidence, and takes into account the environmental, social and economic aspects of available techniques for pollution prevention and control. The process, which is illustrated by the figure below, involves a variety of stakeholders, including representatives of industry, civil society and government. Key concerns associated with the design and implementation of BAT policies include developing adequate models for multi-stakeholder decision-making, consulting and informing highly affected groups such as local communities, and ensuring transparent processes for the determination of BAT. Further, adequate monitoring of industrial emissions and public availability of emissions data are crucial for the evaluation of the impact of BAT policies.

**How do countries determine Best Available Techniques and permit conditions for preventing and controlling industrial pollution?**

1. **Information Collection**
   - Information is collected on techniques for prevention and control of industrial pollution.

2. **Evaluation of the Techniques**
   - The techniques are evaluated based on various criteria such as economic, environmental and social aspects.

3. **The Best Available Techniques (BAT) are identified and described in BAT reference documents (BREFs).**

4. **BAT Associated Emission Levels (BAT-AELs) are derived from the BAT.**

5. **The BAT-AELs are translated into legally binding Emission Limit Values in environmental permits for industry operators.**

Several governments and international organisations conduct BAT projects in the garment and footwear sector. For example, the German Federal Environment Agency collaborates with stakeholders in India and Pakistan to implement BAT in their textiles industries, and UNIDO conducts BAT capacity building projects in the textiles sector in the wider Mediterranean region. The European Union’s BAT reference document (BREFs) for the textiles industry was published in 2003 and is currently under review; this provides an important opportunity for environmental NGOs, industry and governments to revisit recommended pollution prevention and control techniques and associated emission levels for the textiles sector. Together with the other BREFs that apply under the EU Industrial Emissions Directive, the textiles BREF forms the basis for permit conditions in the EU Member States as well as in Israel. Korea and the Russian Federation have developed their own BREFs for the textiles sector and other industries.

The OECD’s BAT project, which started in 2016, seeks to facilitate the exchange of best practices and guidance on the determination of BAT, effectiveness evaluation of BAT policies and comparison of BREFs across countries. Based on extensive policy research and a broad network of BAT experts from all over the world, the OECD has collected evidence and experience that enable the development and implementation of enhanced BAT policies in a number of countries.

Discussion questions

- What are the most challenging aspects for companies of carrying out due diligence on pollution risks in their garment and footwear supply chains, and how do companies build a robust process to identify, prevent, cease, mitigate and communicate their impacts meaningfully?
- BAT is a key tool for policy makers to prevent and control pollution caused by manufacturing:
  - What are the key opportunities and challenges for policy makers establishing and implementing BAT policies and in the textiles sector?
  - What has been their impact on pollution risks in the garment sector and how is this measured and reported? Can you share practical examples?
- How can policy makers ensure that the processes to determine and implement BAT are based on transparency and multi-stakeholder decision-making, including consultation with workers and local communities affected by pollution risk?
- How can governments enforce compliance with BAT-associated emission levels?
- What are the challenges and opportunities related to enhancing the capacity of developing countries to adopt BAT policies, adapted to local conditions?

For more information

- The OECD’s BAT project
- Methodologies and Data for the Effectiveness Evaluation of BAT Policies (OECD, forthcoming)
- Approaches to Establishing BAT Around the World (OECD, 2018)
- OECD Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector (OECD, 2017)
- Policies on BAT or Similar Concepts Across the World (OECD, 2017)
- Emission Scenario Document (ESD) on the Use of Textile Dyes (OECD, 2015)