

TERM OF REFERENCE

(National consultation firm / expert group)

SUPPORTING DEVELOPMENT OF GUIDANCE DOCUMENT ON THE APPLICATION OF BAT/BEP IN THE TEXTILE AND GARMENT SECTOR IN VIETNAM.

Project: "Reducing uses and releases of chemicals of concern, including Persistent Organic Pollutants (POPs), in the textiles sector"

Work location: . Vietnam

Duration: 36 weeks

1. Background

1.1. General Information and Project Scope

Textiles, garments, and fashion are part of one of the largest industries in the world economy . Textiles and garments represent about 5% of all manufactured goods exported worldwide. The textile industries in Bangladesh, Indonesia, Pakistan, and Vietnam account for a significant and growing share of the world market, with these countries contributing about 15-20% of garment exports. Vietnam's textile and garment industry is currently among the world's leading exporters, accounting for 4-5% of the global market share. The entire industry has about 6,000 companies, which are mainly small and medium-sized enterprises (SMEs); approximately 84% are private companies and 15% are foreign direct investment (FDI) companies.

The textile and garment value chain is very long and complex, with large garment manufacturers often having more than 1,000 suppliers in several dozen countries. The value chain extends from retailers and brands to spinning, knitting, weaving, bonding, processing, and on to fiber producers and chemical suppliers. The textile value chain includes different production stages described in a tier system as follows:

- Tier 1: Assembly production finished
- Tier 2: Production and finishing of materials (e.g. fabric, trims, ...)
- Tier 3: Processing of raw materials into yarn.
- Tier 4: Raw materials manufacturing and suppliers.

Regarding chemical use, for every kilogram of garment produced, an estimated 0.58 kg of chemicals is required as input, and a quarter of all chemicals produced in the world are used in the textile industry. Of the approximately 3,500 chemicals commonly used in the textile industry, 750 are classified as hazardous to human health and 440 are hazardous to the environment. Some are classified as Chemicals of Concern (CoC) or Persistent Organic Pollutants (POPs) listed for control under the Stockholm Convention.

In Vietnam, the management of chemicals in general and in the textile industry in particular is regulated by the Law on Chemicals and its guiding documents. At the same time, the control of industrial emissions is also governed by the Law on Environmental Protection and related regulations. Additionally, the management of POPs is also very strictly regulated under the Law on Environmental Protection, the Penal Code, and other relevant regulations.

Under the Stockholm Convention on POPs, the Best Available Techniques (BAT) and Best Environmental Practices (BEP) are important tools under the Stockholm Convention that help reduce and eliminate persistent organic pollutants (POPs) by promoting the use of safer alternatives and minimizing the release of POPs into the environment.

The Project “Reducing the uses and releases of chemicals, including persistent organic pollutants (POPs), in the textiles sector” was developed and implemented to reduce the use of POPs and CoCs in the textiles sector in Bangladesh, Indonesia, Pakistan and Vietnam.

The overall objective of the Project is “Enhancing the management of chemicals and industrial waste through better control, reduction and treatment of chemicals of concern (CoC), including persistent organic pollutants (POPs)”.

The specific objectives of the project include:

- Implement voluntary compliance measures aimed at reducing the use, emissions and exposure to priority CoCs, including POPs, in Tier 2 and Tier 3 textile and apparel companies;
- Strengthen the capacity of competent authorities to develop and apply policies and regulations to control and eliminate CoC and POPs in the textile and garment sector.

The Project includes the following components:

- Component 1: Information sharing and pilots on priority CoCs, including POPs, in textile facilities

This component will address the first major cause, which is the lack of knowledge and technical information on chemical management and use, with a focus on wet process *facilities*. Through the organization of inventories, assessments, training courses and technical support at the grassroots level on POPs and CoCs, the expected outcome of this component is that Tier 2 and Tier 3 textile and garment companies will reduce their use, emissions and exposure to CoCs, including POPs.

To the facilities to implement safe management and reduce chemical emissions, the process will include four steps: 1) Identify chemicals in use; 2) Share chemical data with regulators and buyers in the value chain; 3) Transition to safer and more sustainable alternatives; 4) Use the acquired knowledge to improve chemical storage and contamination, occupational health, facilities and environmental management practices. Activities will focus on Tier 2 textile facilities and Tier 1 facilities, and a portion of chemical and material supply facilities, where the use, storage and disposal of chemicals is most significant.

- Component 2: Eco-innovation strategies towards zero toxic emissions and circular textile economy

Component 2 identifies and promotes private sector and government policies to transform and reduce POPs and CoCs in the textile sector. This component will be implemented based on the knowledge and

information from Component 1.

This component aims to promote a non-toxic and circular economy approach in the textile sector and will provide information for businesses to develop policies at national, regional and global levels. A systematic approach, from raw material sourcing, design, production, consumption, waste management, including recycling, to the end of the material life cycle, can create new business opportunities and generate other economic benefits for factory owners, thereby promoting a “green” transition.

- Component 3: Knowledge management for scaling up project results

Based on the results, which are documents on knowledge, information, education and training, safe alternatives and sound management practices, Component 3 organizes information and knowledge management and replication of project results nationally and globally.

- Component 4: Project Monitoring and Evaluation.

1.2. Coordination Mechanism for Implementing Organizations of this Activity:

This activity falls under Component 2 of the Project. The activity involves the participation and coordination of the following organizations:

1. Natural Resources Defense Council - NRDC: NRDC is the lead organization for the project's technical support. In this Activity, NRDC is responsible for leading the development of the BAT & BEP implementation guidance documents for the textile-dyeing-garment sector (focusing on measures to reduce the use and release of CoCs and POPs). NRDC coordinates the activities of international expert groups and participates in supporting the development, providing feedback, and ensuring the quality of the outputs of this activity.

2. Organisation for Economic Co-operation and Development (OECD) BAT & BEP team: The OECD BAT & BEP team provides information, programs, and projects related to the development, dissemination, and application of guidance on BAT and BEP, including BAT for the textile industry; leads the development of the Framework Guidance document for building and implementing BAT & BEP in the textile-dyeing-garment sector.

3. UNEP - Law Division: The UNEP - Law Division team and invited experts provide information and lead the development of assessment reports on integrating BAT & BEP guidance into relevant legal regulations, focusing on environmental impact assessment and environmental permitting processes applicable to textile facilities, include ppermittin-processes and issues related to chemical management.

4. Vietnam National Consulting Firm / Group : Leads the development of the assessment report on the current technology status and BAT & BEP needs in Vietnam; participates in and supports international expert groups in developing the aforementioned thematic reports; organizes stakeholder consultation activities in Vietnam; and, together with NRDC, develops the Technical Guidance document on BAT & BEP to minimize hazardous chemicals (CoCs and POPs) in the textile industry in Vietnam.

2. Assignment Objective

Within the scope of this Activity, the objectives to be achieved are:

1) Identify the content for developing the BAT/BEP application document, ensuring it aligns with international technical and commercial trends for the Vietnamese textile industry;

2) Assess the current status and need for technological process innovation and develop a roadmap for applying BAT & BEP for textile enterprises, focusing on requirements to reduce hazardous chemical emissions (CoCs and POPs) and ensuring compliance with Vietnam's policies and regulations;

3) Support international experts in developing the Guidance on applying BAT & BEP to minimize the emission of toxic chemicals, including CoCs and POPs, in the production of Vietnam's textile industry.

3. Assignment Tasks

The national consultation team will implement the following tasks with support and in collaboration with the International experts:

- 1. Review the policy and legal framework for applying BAT & BEP to the textile industry at the international and Vietnamese levels.**
 - Participate in and support international experts in synthesizing and analyzing the legal framework for the development and application of BAT & BEP in the textile industry in several countries/regions, including content on integrating and applying BAT/BEP in environmental management.
 - Support international experts in synthesizing and evaluating BAT and BEP measures and solutions, and experiences in application and implementation for chemical risk management in the supply chain, production, and products of the textile industry in several countries/regions.
 - Analyze the gaps in Vietnam's policies and legal regulations regarding the application of BAT & BEP in the textile industry, including content related to the policy framework for chemical management and environmental management.
- 2. Assess the current status and needs for technological innovation/improvement of SMEs and the application of BAT & BEP in the textile industry in Vietnam.**
 - Organize an inception workshop to introduce the project activities to stakeholders in the textile and dyeing industry: associations, brands, FDI enterprises, SMEs, research organizations, and relevant management agencies.
 - Synthesize information on the potential for emissions of CoCs, POPs/PFAS from production stages in the current textile-dyeing-garment technology process, including SMEs in the textile supply/value chain in Vietnam and the region;
 - Survey the current state of environmental management and chemical pollution risks (solid, liquid, gas) of textile and dyeing enterprises in Vietnam.
 - Survey the need for innovation in technology and/or technological processes, including among SMEs in Vietnam, to meet market requirements along the textile value chain regarding the reduction of chemical use and emissions in particular and green

development in general (focusing on enterprises with wet processing and goals to reduce CoC and POP emissions).

- Survey the current level of application of BAT & BEP solutions at textile-dyeing-garment enterprises in Vietnam, including SMEs, during environmental impact assessment, environmental licensing, and general environmental and chemical management.

3. Develop a guidance document for implementing BAT & BEP in the textile-dyeing-garment sector (focusing on measures to reduce the use and release of CoCs and POPs).

- Participate in developing the Report on the Framework Guidance for building and implementing BAT & BEP in the textile-dyeing-garment sector (Supporting international experts from OECD and UNEP).
- Participate in developing the Report on proposals for applying BAT & BEP in environmental impact assessment, environmental licensing, and environmental management in general (Supporting international experts from UNEP Law Division).
- Participate in developing the Document Set / Guidance on implementing BAT & BEP in the textile dyeing sector to reduce CoC and POP emissions (Participating and supporting international experts from NRDC).
- Organize consultations with the Project Management Board and experts to get feedback on the economic, technical, and environmental/sustainable development feasibility of the BAT/BEP document.
- Pilot the application of the BAT & BEP guidance at a minimum of one textile and dyeing enterprise in Vietnam (priority given to enterprises with wet processes and risk of CoC emissions).
- Participate in and support international experts in organizing a Technical Consultation Workshop to gather feedback to finalize the document set.
- Complete the guidance documents for applying BAT/BEP in the textile industry, aiming to minimize the release of toxic chemicals into the environment.
- Propose a process for applying the document and BAT & BEP measures in the textile industry in Vietnam.

4. EXPERT REQUIREMENTS

- **Expert 1 - Team Leader.** A highly experienced expert in Environmental Management, BAT & BEP. Must have a postgraduate degree in a relevant field and at least 15 years of experience. Fluent in English.
- **Expert 2.** Has extensive experience and knowledge of technology and engineering in the textile industry, with experience in implementing work related to cleaner production and the development and application of BAT/BEP. Good working proficiency in English. At least 10 years of relevant experience.

- **Expert 3.** Has comprehensive experience and knowledge in environmental management, chemical pollution control, and assessing and advising on BAT & BEP at enterprises, especially for textile and dyeing businesses. Good working proficiency in English. At least 10 years of relevant experience.
- **Expert 4.** Has comprehensive experience and knowledge in chemical management; has knowledge and work experience with the textile industry in general; has experience in economic assessment and evaluating economic efficiency in production and business chains. At least 10 years of relevant experience.
- **Expert 5.** An expert with experience in policy development and policy impact assessment in the fields of environment, chemicals, and sustainable development. At least 10 years of relevant experience.
- **Other Experts and Support Staff:** Supporting experts will perform tasks as assigned by the Team Leader; must have experience in connecting stakeholders in the textile, environmental, and chemical sectors; must have proficient writing skills in both English and Vietnamese.

5. DELIVERABLES AND TIMELINE

No.	Deliverable	Output Format	Main Contents	Timeline (after contract signing)
1	Methodology, Activity Implementation Plan, and preliminary draft outlines of the framework and guidance documents	Technical report	Methodology, detailed implementation plan, and preliminary draft outline of the BAT & BEP guidance.	4 weeks
2	Overview Report on the policy and legal framework for development and applying BAT & BEP to the textile industry at the international and Vietnamese levels.	Technical report	Synthesis and analysis of the legal framework for the development and application of BAT & BEP in the textile industry in several countries/regions; experiences in application and implementation for chemical risk management in the supply chain, production,	12 weeks (dependent on the receipt of reports and coordination from international experts)

No.	Deliverable	Output Format	Main Contents	Timeline (after contract signing)
			and products in the textile industry in several countries/regions; analysis of the gaps in Vietnam's policies and legal regulations.	
3	Assessment Report on the need for technological improvement and the current status of BAT & BEP application at textile enterprises in Vietnam.	Technical report	Inception report and stakeholder connection; emission risks of CoCs, POPs/PFAS during production; risks from SMEs in the textile supply/value chain; current state of environmental management and chemical pollution risks; needs for innovation in technology and/or technological processes; current level of application of BAT & BEP solutions in environmental and chemical management.	24 weeks
4	Report on the application of BAT & BEP in the textile industry in Vietnam	Overview report on the development and application of BAT/BEP in the textile industry.	Framework guidance for building and implementing BAT & BEP in the textile-dyeing-garment sector; Proposal for applying BAT & BEP in environmental management; Summary of consultation feedback on the BAT/BEP document; Proposal on the process for applying the document and BAT & BEP measures in the textile industry in Vietnam.	28 weeks (dependent on the receipt of reports and coordination from international experts)

No.	Deliverable	Output Format	Main Contents	Timeline (after contract signing)
5	Guidance document on implementing BAT & BEP in the textile sector (focusing on measures to reduce the use and release of CoCs and POPs).	Guidance document	Guidance on applying BAT/BEP in the textile industry, aiming to minimize the release of toxic chemicals into the environment.	32 weeks (dependent on the receipt of reports and coordination from international experts)
6	Executive Summary and proposed roadmap for applying BAT & BEP for the textile industry.	Summary report	A summary of results and a proposed roadmap for applying BAT & BEP to minimize toxic chemical emissions for the textile industry.	36 weeks

Monthly activity progress reports are to be updated for the Project Management Unit and the project's Technical Advisor.

Reports, presentations, and progress summaries must be presented in both Vietnamese and English.

6. DURATION

Expected timeframe: 36 weeks (approx. 9 months) from the signing of contract.

7. REPORTING AND SUPERVISION

The Consultant team will report to BCRC, the PMU of the (GEF/UNEP POPs Textile Project) and collaborate with:

- Ministry of Agriculture and Environment (MAE)
- Ministry of Industry and Trade (MOIT)
- Vietnam Textile and Apparel Association (VITAS), Vietnam Environmental Assessment Association / Vietnam Association on Conservation of Nature and Environment
- UN agencies (e.g., UNEP),

- Relevant development partners (e.g., GIZ, IDH, UNDP, WWF).

8. BUDGET AND PAYMENT SCHEDULE

Budget to be agreed based on a detailed technical and financial proposal. Payment schedule:

- 20% upon approval of Output 1 - Inception Report
- 30 % upon submission of Output 2 - Overview Report on the policy and legal framework for development and applying BAT & BEP to the textile industry at the international and Vietnamese levels
- 20 % upon submission of Output 3 - Assessment Report on the need for technological improvement and the current status of BAT & BEP application at textile enterprises in Vietnam.
- 10 % upon submission of Output 4 – Report on the application of BAT & BEP in the textile industry in Vietnam.
- 10 % upon submission of Output 5 - Guidance document on implementing BAT & BEP in the textile sector (focusing on measures to reduce the use and release of CoCs and POPs).
- 10% upon approval of Output 6 - and Executive Summary.

9. ETHICAL AND CONFIDENTIALITY CLAUSE

The Consultant team must ensure confidentiality of all non-public information accessed or generated during the assignment and adhere to ethical standards in conducting research and stakeholder engagement.