

Concept Note for Global Framework on Chemicals (GFC) Fund Project Application

The Global Framework on Chemicals Fund issued the second round of application on 30 September 2025 with a closing date for concept notes on 15 December 2025. The fund aims to support countries in implementing Global Framework on Chemicals for the safe and sustainable management of chemicals and waste. Governments of developing countries, small island developing states, and countries with economies in transition can apply for project funds ranging from 300,000 to 800,000 USD, with a maximum implementation period of 3 years.

1. Proposed Project Title

The Full Life Cycle Management of Chemicals and Green Transformation in the Textile Industry

2. Budget and Implementation Period

Proposed Budget: USD 800,000 (subject to the number of participating countries and approval by the Secretariat)

Implementation Period: January 2027 - December 2029 (subject to approval by the Secretariat)

3. Background

The textile industry is one of the major consumers of chemicals which used approximately 25% of the chemicals produced globally. The massive production, use, and emission of textile chemicals are among the main sources of ecological environment pollution and human health hazards caused by the textile industry. The environmental and health hazards of textile chemicals run through the entire "production-use-disposal" life cycle. Waste gas containing volatile organic compounds (VOCs) is emitted in the production stage. Wastewater containing heavy metals and azo dyes is generated in the use stage. The incineration of textiles releases persistent organic pollutants (POPs) such as dioxins in the disposal stage. Moreover, "forever chemicals" like per- and polyfluoroalkyl substances (PFAS) accumulate in the environment and eventually harm human health through the food chain.

The Asia-Pacific region is a core production belt of the global textile industry and a major exporter of garment. However, the regional industry is characterized by "high output but low regulation". Cases are common where exported textiles containing excessive chemical substances are notified and recalled by markets such as the European Union and the United States. Countries in the region are in urgent need of deepening their understanding of relevant policies and regulations, increasing investment in research on raw materials and products, improving quality management systems, strengthening the safety management of textile chemicals in their own countries and promoting the green transformation of the industry, so as to ensure that exported products comply with the laws and regulations of the importing markets.

4. Objectives

To help countries in the Asia-Pacific region strengthen the construction of laws and regulations for the full life cycle management of textile chemicals, establish a collaborative governance system for the full life cycle of textile chemicals in the Asia-Pacific region, significantly reduce the environmental release and health exposure risks of key controlled chemicals such as POPs and PFAS, promote the transformation of the textile industry to a low-carbon and sustainable model, and

form a long-term governance mechanism with the linkage of "policy-technology-market".

5. Activities

Activity 1: Project Initiation

The Basel Convention Regional Centre for Asia and the Pacific as the project implementing agency will organize participating countries and the GFC Secretariat to hold a project kick-off meeting.

Activity 2: Main Tasks of Participating Countries (Countries can choose the activities from below or confirm other activities byself)

Activity 2.1: Conduct research on the current status of textile chemical policies.

Carry out research on the current status of policies related to textile chemical management in the country, including laws, regulations, and standards issued by government departments, relevant textile associations, and enterprises, as well as their control methods, and evaluate the existing management system of textile chemicals in the country.

Activity 2.2: Establish a chemical flow account for the textile industry

Conduct surveys on typical textile production and processing enterprises in the country (covering printing and dyeing, finishing, and garment processing), sort out a list of frequently used chemicals (focusing on checking fixing agents, waterproofing agents, ultraviolet absorbers, flame retardants, anti - wrinkle agents, silicone softeners, etc.), and establish a chemical flow account for the national textile industry.

Activity 2.3: Establish an accounting and evaluation system for textile chemical footprints

The full life cycle of textile products involves the input of a variety of textile chemicals and the emission of various chemical pollutants. Select typical textile products, and based on the characteristics of chemical use and chemical pollutant emission in their full life cycle, such as the fiber raw material production stage (agricultural or industrial), the industrial production and processing stage (spinning, weaving, dyeing and finishing, garment making, etc.), the consumption stage, and the waste recycling stage, construct a research and evaluation system for textile chemical footprints.

Activity 2.4: Promote the replacement of toxic and hazardous chemicals in the textile industry

Collaborate with domestic universities, textile industry associations, scientific research institutions, and other organizations. Considering factors such as the country's climate and types of textiles, select 3-5 types of low-cost green chemicals (such as dyes extracted from natural plants along the Mekong River and low-formaldehyde anti-wrinkle finishing agents) to replace PFAS and formaldehyde-based chemicals. After completing the technical adaptability test, select typical enterprises for pilot production and trial use.

Activity 2.5: Conduct research and analysis on the current status of waste textile treatment

Sort out the current status of national waste textile management policies, carry out research on mechanical recycling and chemical recycling technologies of waste textiles, analyze the impact of chemicals on the process of decomposing waste textiles into fiber raw materials and producing

recycled fibers or other materials through chemical recycling, as well as the migration process of chemicals, and evaluate the impact of chemicals on the waste textile treatment process.

Activity 2.6: Establish or update national textile chemical policies or standards

With reference to the requirements of the EU REACH Regulation, the Restricted Substances List (RSL) of the International Association for Research and Testing in the Field of Textile and Leather (Oeko-Tex®), Bluesign® Restricted Substances List, etc., and in combination with the actual situation of the national industry, formulate regulations for the full life cycle management of textile chemicals, and clarify the core requirements for the raw material, production, use, and disposal stages. For example, establish a list of restricted chemicals in the textile industry, or clarify the classification standards for textile recycling.

Activity 2.7: Capacity-building activities

Organize training and publicity activities on the full life cycle management of textile chemicals, invite government officials, researchers, and enterprise representatives to participate, publicize the dynamics of national textile chemical management, and establish a tripartite exchange platform of "government - enterprise - scientific research" to share experiences and practices in textile chemical management.

Activity 3: Formulate a Regional Guideline for the Full Life Cycle Management of Textile Chemicals

Based on desk research and case studies, Basel Convention Regional Centre for Asia and the Pacific as the project implementing agency will study and formulate a Regional Guideline for the Full Life Cycle Management of Textile Chemicals, which will serve as the main regional strategic framework for the safety management of textile chemicals in this region.

- Evaluate and analyze the current status of textile chemical management in various countries in the region from multiple dimensions such as policy systems and testing capabilities, identify the differentiated pain points of each country, and formulate the Regional Guideline for the Full Life Cycle Management of Textile Chemicals.
- Organize a regional workshop, inviting 3-5 government officials, technical personnel, and experts from each participating country to share experiences in textile chemical safety management, and discuss the Regional Guideline for the Full Life Cycle Management of Textile Chemicals.

Activity 4: Project Publicity and Experience Promotion

- Hold an "Achievement Exhibition on Full Life Cycle Management of Chemicals and Green Transformation in the Textile Industry", release and introduce the Regional Guideline for the Full Life Cycle Management of Textile Chemicals, display the replacement of toxic and hazardous substances in textiles by pilot enterprises and samples of green products, and invite government officials, experts, typical enterprises, and international buyers in the region to participate, so as to promote trade cooperation in green textiles.
- Spread the Regional Guideline for the Full Life Cycle Management of Textile Chemicals globally through channels such as the GFC platform and the official website of the United Nations Environment Programme.

6. Outputs (Subject to the Contents of Activities)

- (1) A summary report of the project kick - off meeting
- (2) National research reports on the current status of textile chemical management
- (3) National chemical flow accounts for the textile industry
- (4) National research and evaluation systems for textile chemical footprints
- (5) National case studies of replacement of toxic and hazardous chemicals in the textile industry
- (6) National research reports on the current status of textile waste treatment
- (7) National lists of restricted chemicals in the textile industry
- (8) Summary reports of national training and publicity activities on textile chemicals
- (9) A Regional Guide for the Full Life Cycle Management of Textile Chemicals

7. Responsibilities of Participating Countries

Activity 2 will be carried out by participating countries, and the countries need to nominate representatives attend the project kick-off meeting and regional workshop. Regarding the specific content of Activity 2, each country can choose from the above activities or design other related activities based on the countries' situation.