

Subregional Consultation in Latin America: “Advancing a Response to Pharmaceuticals in the Environment in the Context of the Global Framework on Chemicals (GFC)”, 29 and 30 October 2025

While pharmaceutical products are necessary for human and animal health, and agricultural production, their potential environmental impacts throughout their life cycle have not been sufficiently considered. There is growing evidence of the presence of pharmaceutical residues in the environment in different regions of the world. These residues are found in continental and marine waters, in soils and sediments, as well as in animal and plant tissues. These residues can lead to negative effects on both the environment (direct toxic effects on biota, endocrine disruption, alteration of biogeochemical cycles, etc.) and humans (e.g., affecting ecosystem services such as water supply, contributing to AMR, etc.). Given that the consumption of pharmaceutical products is projected to continue growing in the coming years, it is becoming increasingly necessary to take measures to reduce their discharge into the environment.

In this context, the Latin American Subregional Consultation: “Advancing a response to pharmaceuticals in the environment in the context of the Global Framework on Chemicals (GFC)” was held on 29 and 30 October 2025 in Bogota, Colombia (and online). The meeting was organized by UNEP, in cooperation with the Basel Convention Coordinating Center, Stockholm Convention Regional Center for Latin America and the Caribbean (BCCC-SCRC), with financial support from the Government of Sweden. The event brought together representatives from Colombia, Costa Rica, Ecuador, Peru and Uruguay, as well as from academia, international organizations, civil society, and the private sector in the region. The objective was to exchange experiences, best practices and challenges, and explore opportunities for regional cooperation to address the issue of pharmaceuticals in the environment. The meeting considered the context of the Global Framework on Chemicals and the opportunities for action it provides, noting Environmentally Persistent Pharmaceutical Pollutants (EPPPs amongst others are currently considered as “Issues of Concern” and through sectoral implementation programmes.

Before the consultation, participating countries were invited to take part in a survey to collect information at the national level on the topic of pharmaceuticals in the environment. It consisted of 19 questions covering the existing policy/regulatory frameworks, pharmaceutical consumption, and existing infrastructure for waste and wastewater management. It also included questions on challenges and/or facilitating factors in the implementation of actions that promote the

environmentally sound management of pharmaceutical residues, and on the coordination of the different relevant actors at the national level.

Responses to the survey highlighted the different situations of participating countries. The extent of progress in implementing plans and regulations varies from one country to another, according on the aspect being regulated (pharmaceutical waste, wastewater, monitoring, etc.). However, some similar patterns were observed. For example, access to information remains a widespread challenge, and overall awareness of the issue is generally low.

The meeting was structured into four thematic sessions: (i) global and regional initiatives related to the life cycle of pharmaceutical products; (ii) prevention and awareness measures; (iii) pharmaceuticals in effluents, wastewater, and the environment, with a focus on regulation, monitoring, and mitigation; and (iv) pharmaceutical waste and post-consumer recovery programs. Overall, participants agreed on the need to address pharmaceuticals in the environment through a comprehensive life cycle approach, prioritizing prevention at the beginning of the cycle, the rational use of medicines, and coordination with existing approaches such as One Health and the fight against antimicrobial resistance (AMR).

During the consultation, stakeholders emphasized the importance of regulatory and management frameworks, as a key tool in guiding actions to address the issue of pharmaceuticals in the environment. At the national level, coordination between relevant sectors and stakeholders (including relevant ministries, the health sector, the pharmaceutical industry, civil society organizations, the agricultural sector, solid waste and wastewater operators, academia and civil society) is essential for the successful implementation of policies and management tools. Participants of the meeting highlighted that the exchange of experiences among countries in similar situations can both inspire and accelerate progress toward stronger regulatory frameworks and voluntary actions, while promoting their development in a coordinated manner across different sectors. Participants identified a number of key common priorities to address pharmaceuticals in the environment, which include the need to:

- **Integrate a preventive approach throughout the life cycle of pharmaceutical products**, prioritizing the rationale use of medicines, preventive healthcare approaches, and synergies with One Health and AMR initiatives, with the aim of reducing releases to the environment from early stages of pharmaceuticals lifecycle.
- **Strengthen policy coherence and governance** by systematically integrating the issue of pharmaceuticals in the environment into chemicals, waste, water, and health policies, and

promoting interministerial and intersectoral approaches aligned with the Global Framework on Chemicals.

- **Improve the management of pharmaceuticals in wastewater and effluents through cost-effective and context-specific solutions**, including differentiated treatments where appropriate, and the progressive incorporation of pharmaceutical parameters into existing monitoring programmes (e.g. the projects in Costa Rica and Uruguay).
- **Expand and consolidate take-back programmes for expired and unused medicines**, gradually moving from voluntary schemes to more structured or mandatory approaches, within the framework of EPR and the considering the whole life cycle of pharmaceutical products.
- **Strengthen evidence generation and environmental monitoring**, prioritizing relevant substances and matrices, and leveraging and expanding existing surveillance programmes—such as those associated with AMR—to support evidence-based decision-making.
- **Promote regional cooperation and knowledge sharing**, to facilitate learning among countries on good practices, challenges, and solutions, and encouraging the active participation of the private sector and other key actors.

Finally, participants noted that, in order to achieve these goals and effectively address the issue of pharmaceuticals in the environment, the following next steps and enabling conditions should be pursued:

- **Expand awareness-raising, education, and training activities** targeting decision makers, health professionals, veterinary drug marketers, and the civil society, promoting treatment compliance, reduction of pharmaceutical waste, and improving disposal practices from all relevant sources.
- **Strengthen intersectoral coordination mechanisms**, particularly between environmental, health, water, agricultural, and industrial authorities, using and strengthening existing interministerial and multisectoral working groups.
- **Strengthen technical and institutional capacities**, including the analytical capacity of laboratories, access to certified reference materials, harmonized monitoring approaches, and the use of IT and technological tools to improve traceability, stock control, and oversight of pharmaceutical products during and after use.

- **Mobilize financial and technical support**, including regional and international financing mechanisms, for the development of pilot projects and the scaling up of preventive and mitigation measures.

- **Encourage innovation and private sector engagement** by promoting the development of more sustainable pharmaceutical products and packaging with a lower environmental impact throughout their life cycle.

In concluding the consultation, participants reaffirmed the need to address pharmaceuticals in the environment through a comprehensive and preventive life cycle approach, emphasizing rationale use, proper disposal, and stronger coordination among relevant sectors. They underscored the importance of continued regional cooperation and knowledge sharing, as well as the engagement of all relevant stakeholders including the private sector, to advance effective implementation. In this context, the Global Framework on Chemicals was recognized as a strategic platform to promote policy coherence and facilitate technical and financial cooperation.