UN environment programme

Assessment Report on Issues of Concern

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ENDOCRINE DISRUPTING CHEMICALS (EDCs)

1. Introduction

An endocrine-disrupting chemical (EDC) is an exogenous substance or mixture that alters function(s) of the endocrine system and consequently causes adverse health effects in an intact organism, or its progeny, or (sub)populations.

2. Why is it relevant?

Known EDCs include, among others, polychlorinated biphenyl (PCBs), dichlorodiphenyltrichloroethane (DDT), polybrominated diphenyl ethers (PBDEs) and some phthalates; however, no commonly accepted criteria for the identification of EDCs are yet available.

A number of laboratory and epidemiological studies have suggested associations between exposure to certain EDCs and adverse effects in humans, including reproductive dysfunctions, cancers, neurodevelopmental disorders, diabetes and metabolic disorders, among others.

Some studies suggest that certain chemicals have endocrine disrupting effects on wildlife, including feminization of some species.

EDCs were identified as an issue of concern under the Strategic Approach to International Chemicals Management (SAICM) at the third meeting of the International Conference on Chemicals Management (ICCM3) in 2012.

Stakeholders decided *"to implement cooperative actions on endocrine-disrupting chemicals with the overall objective of increasing awareness and understanding among policymakers and other stakeholders."*

3. Existing instruments and actions

At the regional and national level, most efforts by governments have been focused on the development of infrastructure for identifying and regulating EDCs.

For example, some countries and regions have developed overarching strategies to guide different lines of work, and other countries and regions have developed or updated their laws with explicit references to EDCs, providing a clear framework on how EDCs are to be addressed.

For more detailed information on EDCs, please see Chapter 3.2 of the ***Assessment Report on Issues of Concern*** and Part A, Chapter 2 of the ***Annexes to the Assessment Report on Issues of Concern***. Available on the UNEP website.

3. Existing instruments and actions (cont.)

Additional actions have focused on screening, assessment and identification of EDCs, particularly development of standardized criteria, guidance and tools for testing and assessment, and screening programmes under respective legal frameworks.

These actions are complemented by other stakeholders mostly focusing on synthesizing and sharing existing scientific information, developing guidance and tools for testing and assessment, and awareness raising.

At the international level, actions are coordinated by the work plan prepared by the United Nations Environment Programme, the World Health Organization and the Organization for Economic Cooperation and Development and adopted at ICCM4.

Some civil society organisations have also been active in screening and assessment of EDCs, and their work indicates that many more potential EDCs exist than are currently being screened and assessed by regulators.

4. Challenges and opportunities

The current states of actions and knowledge of the state-of the-art science in different countries on the issue of EDCs vary considerably. Awareness has been built within and among developed countries; however, more is required in developing regions.

Countries have taken different approaches to assessing and managing EDCs. As a result, some chemicals may be identified as EDCs and regulated by some countries but not by others. Inconsistencies across countries could hamper sound management of EDCs internationally.

Increased awareness raising and information sharing on the issue remains necessary in countries in the African, Asian and Pacific, Central and Eastern European, and Latin American and Caribbean regions, possibly in local languages. This may enable those countries and regions' work on EDCs, including integrating EDCs into their national and regional regulatory and policy frameworks.

Within the policy arena, strengthened dialogues and concerted actions at the national, regional and international levels could enable an effective and efficient way forward.

An important milestone could be the exploration of the possible inclusion of EDCs in the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

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