Emerging policy issue update on endocrine-disrupting chemicals

Note by the secretariat

The secretariat has the honour to circulate, for the information of participants, a progress report on the implementation of resolution III/2 F on endocrine-disrupting chemicals prepared by the United Nations Environment Programme (UNEP), the Organization for Economic Cooperation and Development (OECD) and the World Health Organization (WHO) (see annex). The report provides a summary of the work carried out on this issue by UNEP, OECD and WHO since the third session of the International Conference on Chemicals Management, and provides information on planned activities to support the achievement of the 2020 goal. The report is presented as received by the secretariat, without formal editing.
Annex

Progress report on endocrine-disrupting chemicals

I. Background and Introduction

In Resolution III/2: Emerging policy issues, Part F Endocrine-disrupting chemicals, the International Conference on Chemicals Management recognized the potential adverse effects of endocrine disruptors on human health and the environment; recognized also the need to protect humans, and ecosystems and their constituent parts that are especially vulnerable, as set forth in, inter alia, paragraph 14 (b) of the Overarching Policy Strategy of the Strategic Approach; and considered the particular needs of developing countries and countries with economies in transition.

In Resolution III/2, the Conference agreed that international cooperation to build awareness and understanding and promote actions on endocrine-disrupting chemicals is an emerging policy issue; considered that information dissemination and awareness-raising on endocrine-disrupting chemicals are particularly relevant and that improving the availability of and access to information on such chemicals is a priority; recognized the current knowledge gaps on exposure to and the effects of endocrine-disrupting chemicals; also recognised the current difficulties faced by some countries in mobilizing the resources required to tackle endocrine-disrupting chemicals as an emerging policy issue; and decided to implement cooperative actions on endocrine-disrupting chemicals with the overall objective of increasing awareness and understanding among policymakers and other stakeholders.

Furthermore, the Conference invited the participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals, within their respective mandates as part of their programmes of work, to lead and facilitate the cooperative actions on endocrine-disrupting chemicals in an open, transparent and inclusive manner by building on existing activities of all participants in the Strategic Approach that will:

(a) Provide up-to-date information and scientific expert advice to relevant stakeholders for the purpose of identifying or recommending potential measures that could contribute to reductions in exposures to or the effects of endocrine-disrupting chemicals, in particular among vulnerable populations, through, inter alia, timely updates to the 2012 report on the state of the science of endocrine-disrupting chemicals, published jointly by the United Nations Environment Programme and the World Health Organization, with particular attention to the needs of developing countries and countries with economies in transition;

(b) Raise awareness and facilitate science-based information exchange, dissemination and networking on endocrine-disrupting chemicals through, inter alia, activities at all levels and the use of the Strategic Approach clearing house;

(c) Provide international support for activities to build capacities in countries, in particular developing countries and countries with economies in transition, for generating information and for assessing issues related to endocrine-disrupting chemicals in order to support decision-making, including the prioritization of actions to reduce risks;

(d) Facilitate mutual support in research, the development of case studies and advice on translation of research results into control actions;

The Conference invited the participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals to develop a plan of work for the cooperative actions on endocrine-disrupting chemicals and in consultation with participants of the Bureau of the Conference, in its development and to publish the plan on the Strategic Approach clearing-house website.

II. Project activities and outcomes

1. Since the third session of the Conference, UNEP and WHO have published a report entitled *State of the Science of Endocrine Disrupting Chemicals – 2012 (SOS of EDCs)* together with a summary for decision makers. These documents, launched during the twenty-seventh session of the UNEP Governing Council in February 2013, provide, respectively, a detailed report on the current scientific information on endocrine-disrupting chemicals, and the key highlights of the scientific material in a summarized format to assist decision makers in determining key areas of concern. The summary document was circulated to all Strategic Approach focal points in April 2013, along with a letter highlighting key findings and calling for additional information and expressions of interest.
2. The participating organizations of IOMC were invited in resolution III/2 F to prepare a workplan for their cooperative activities in support of implementation of the resolution. The workplan, developed collaboratively by UNEP, WHO and OECD, was presented to the Bureau of the Conference at its meeting held on 9 and 10 July 2013 for its consideration and comment.

3. In line with the workplan, UNEP convened awareness-raising workshops on endocrine-disrupting chemicals back-to-back with the Strategic Approach regional meetings in the Latin America and Caribbean, Central and Eastern European, African and Asia-Pacific regions. The workshops have provided an opportunity for the regions to be briefed on the current state of scientific knowledge by lead authors of the *State of the Science of Endocrine Disrupting Chemicals – 2012* report. Participants in each region held extensive discussions on the issue, including the consideration of possible activities at the national and regional levels. The need for increased awareness on the issue was widely recognized, including the need for gathering information on levels of endocrine-disrupting chemicals in the environment. It was also widely recognized that there was limited or no control over substances with endocrine-disrupting potential at the national level in most developing countries and countries with economies in transition. The need for further awareness-raising and research activities was highlighted in resolutions adopted in the African, Latin America and the Caribbean and Asia-Pacific regions. OECD representatives participated in all the regional workshops organized by UNEP and gave presentations on the achievements, tools and methodologies developed by the Organization and available to regulatory authorities in any country.

4. At the SAICM regional meetings, the Africa, Asia Pacific and Latin America and Caribbean regions adopted a resolution on EDCs which reinforced the ICCM 3 resolution on EDCs. Amongst other things, the resolutions invite UNEP and WHO, subject to availability of resources, to [i] develop a report on EDCs in each region with regional input that is targeted to the situation and needs of developing countries and countries with economies in transition, and [ii] recommend a robust series of awareness raising activities on EDCs to take place in respective regional languages. Responses to questionnaires in advance of the regional workshops pointed to a general lack of knowledge on the exposure and impact of EDCs which led to a lack of control measures at country level.

5. To address the issues expressed by Governments and other stakeholders in the EDC regional resolutions and the questionnaires, UNEP established an Advisory Group on environmental exposure and impact that provides strategic and policy advice to UNEP such as advice on the UNEP EDC project under its Programme of Work. UNEP developed an EDC project that was subject to a multistakeholder consultation and is now in its finalization stage. The project is aimed at increasing and improving intergovernmental and intersectoral coordination as well as raising awareness about EDCs in developing and transition countries. As part of increasing knowledge and awareness on EDCs, the 2012 SOS of EDCs Summary for Decision Makers is now being translated into the official UN languages and will be disseminated globally. The UNEP EDC website is also being updated to become a repository of evidenced based information on the environmental exposure and impact on EDCs.

6. OECD continues developing new and updating existing Test Guidelines with endocrine-specific endpoints, for both the hazard to aquatic environment and to human health; five new and updated Test Guidelines for the detection and characterisation of endocrine active substances were adopted since 2012 (3 for the protection of environmental species [TG 211, TG 240 and TG 241]) and 2 for the protection of human health (TG 455, TG 493). These Test Guidelines are developed based on countries’ regulatory needs for in vitro and in vivo tests, and are used by countries and industry to screen, prioritize chemicals for further testing, and test chemicals for characterising the hazard. On 16-17 October 2014 a meeting of the Advisory Group on Endocrine Disrupters Testing and Assessment was held at OECD in Paris to discuss priorities for further work and development of Test Guidelines, guidance documents and case studies, application of knowledge from Adverse Outcome Pathways to develop relevant test methods, and cross-species extrapolation of data for chemical risk assessment based on case studies.

7. WHO convened an expert meeting in Bonn, Germany, on 7 and 8 July 2014, to discuss methodologies for health risk assessment of endocrine-disrupting chemicals. In particular, the meeting discussed experiences in exposure assessment, health surveillance, epidemiological study design and performance, as well as capacity-building at the national and international levels. Participants in the meeting also discussed means to facilitate activities to prevent the health impacts of endocrine-disrupting chemicals as well as to support countries in the implementation of resolution III/2 F. The report of the meeting is available at: http://www.euro.who.int/en/health-topics/environment-and-health/health-impact-assessment/publications.
During the WHO expert meeting in Bonn, a presentation was given on a publication entitled *Identification of Risks from Exposure to Endocrine-Disrupting Chemicals at the Country Level*, produced by the WHO Regional Office for Europe in 2014, which is available from the WHO website. The report provides information on activities related to endocrine-disrupting chemicals in Denmark, France, Japan, the Republic of Korea and the United States.

WHO has established a global network of chemical risk assessment institutions in order to provide a forum for scientific exchange and collaborative actions, including on endocrine-disrupting chemicals. The first meeting of the network was held in Paris from 8 to 10 October 2014.

**III. Planned activities and implications for the 2020 goal**

In response to resolution III/2 and in line with the OECD-UNEP-WHO workplan, the following relevant activities are planned.

The following table provides in column one the activity areas set out in the ICCM3 resolution on EDCs. A number of activities have already taken place, as reported in section II of the present paper. The second column of the table sets out planned future activities, focusing on the near to medium term in line with the detailed work planning horizons of the organizations. Additional activities may well be undertaken in the long term to 2020.

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<th>ACTIVITY AREAS set out in the ICCM3 Resolution</th>
<th>PLANNED ACTIONS</th>
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| 6 a. Provide up-to-date information and scientific expert advice to relevant stakeholders for the purpose of identifying or recommending potential measures that could contribute to reductions in exposures to or the effects of endocrine-disrupting chemicals, in particular among vulnerable populations, through, inter alia, timely updates to the 2012 report on the state of the science of endocrine-disrupting chemicals, published jointly by the United Nations Environment Programme and the World Health Organization, with particular attention to the needs of developing countries and countries with economies in transition | **WHO**: For the period to 2017, follow-up from the WHO expert meeting in 2014 includes the preparation by groups of experts of two articles for the scientific literature, on exposure and effects of endocrine disrupting chemicals. In addition, WHO has embarked upon a new project on early life-stage avoidable environmental exposures, which will include EDCs, among others, and is a contribution to global work on Developmental Origins of Health and Disease. An expert meeting is planned for 2016.  
**OECD**: Pursue development of Test Guidelines, in particular in areas not well covered for an efficient screening, e.g. *in vitro* methods for thyroid disruption; consolidation of existing Test Guidelines applying the Adverse Outcome Pathway concept to improve mechanistic understanding of responses and adverse effects measured; development of Test Guidelines covering biotransformation assays (i.e. prediction of metabolism) to place *in vitro* results in context.  
**UNEP**: Compile and disseminate overview reports that focus on existing scientific knowledge of environmental exposure and impact, legislation, measures and gaps regarding known and selected potential EDCs (especially information from developing and transition countries) by 2017. The overview reports which will be made available at the UNEP website will include available risk management options in reducing exposure such as safer substitution and non-chemical alternatives. UNEP will generate and disseminate situation and gap analysis reports on the state-of-the-art methodologies and tools that are ‘fit for purpose’ for assessing the
6 b. Raise awareness and facilitate science-based information exchange, dissemination and networking on endocrine-disrupting chemicals through, inter alia, activities at all levels and the use of the Strategic Approach clearing house

UNEP: Support the design of generic evidenced based awareness raising materials and the rolling out of region-specific awareness raising campaigns by the end of 2017.

WHO: Continue to provide the WHO Chemical Risk Assessment Network as a forum for scientific networking on the human health aspects of EDCs. In the period to 2017, public health awareness-raising materials developed under the above-mentioned project on early life-stage exposures.

OECD: publish case studies on Integrated Risk Assessment to learn on cross-species extrapolation of data in ENV Series on Testing and Assessment.

6 c. Provide international support for activities to build capacities in countries, in particular developing countries and countries with economies in transition, for generating information and for assessing issues related to endocrine-disrupting chemicals in order to support decision-making, including the prioritization of actions to reduce risks

UNEP, WHO and OECD: In the period until 2020, facilitate international meetings, within the organizations’ respective workplans, to address specific issues on EDCs.

6 d. Facilitate mutual support in research, the development of case studies and advice on translation of research results into control actions

UNEP: Support selected developing and transition countries to draft project proposals on appropriate case studies (environmental assessment and management of EDCs) in collaboration with the Chemicals in Products project (such as pesticides and substances in textiles, children’s products, building products, electrical and electronic products) by end of 2017.

WHO: Through actions outlined under 6 a, b and c, make recommendations relevant to human health research.