

GLOBAL ASSESSMENT RELATED ACTIVITIES TO PROTECT MAN AND THE ENVIRONMENT FROM THE IMPACT OF HAZARDOUS CHEMICALS

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The Stockholm Convention on POPs has been designed as a global regime for the phase out and ultimate elimination of the twelve POPs under the Convention. Other chemicals with similar properties may also present a threat to health and environment, and the effectiveness of the convention in reducing exposures and impacts needs to be evaluated in order to prevent damage to health and the environment resulting from the use of POPs and other hazardous chemicals. UNEP Chemicals has recently initiated a series of scientific and technical assessment related activities to underpin the implementation of the Stockholm Convention and to provide assistance to countries in their efforts to achieve the aim of environmentally sound management of chemicals stated in Agenda 21, chapter 19. Some of these activities are described below.

Regionally based assessment of persistent toxic substances

There is a need for a scientifically based assessment of the nature and scale of the threats to the environment and its resources posed by persistent toxic substances that will provide guidance to the international community concerning the priorities for future remedial and preventive action. UNEP is therefore executing a 2 year, US \$5Million project, Regionally Based Assessment of Persistent Toxic Substances within the Global Environmental Facility International Waters programme. The assessment will lead to the identification of priorities for intervention and will attempt to identify appropriate measures to control, reduce or eliminate releases of PTS, at national, regional or global levels. The assessment will be based on an analysis of conditions in each region, using information available from a variety of sources and following common methods and approaches.

Global network for the monitoring of chemicals in the environment

Data on the presence and levels of POPs and other chemicals of concern are lacking for most parts of the world. The lack of environmental monitoring data seriously impairs the analysis, evaluation and assessment of the potential threat of these substances to man and the environment. Monitoring data is also necessary to evaluate and monitor the success of any implemented strategies, e.g. those under the recently adopted Stockholm Convention on POPs. A concerted effort to harmonize and/or develop monitoring and local/regional data, particularly with a focus on POPs, is needed to provide the tools for countries to establish scientifically sound priorities for the management of chemicals.

UNEP has taken an initiative to create a global network for the monitoring of chemicals in the environment with an initial focus on POPs to promote increased co-operation between

existing programmes and to encourage and facilitate the creation and strengthening of new emerging programmes. As a first step, UNEP has invited national, regional and global programmes with extensive monitoring experience to advice on the feasibility of a global network and on practical issues related to monitoring of chemicals. In the near future a website will be established and discussion groups created. Links will be sought with possible future partners to achieve a broader geographical coverage of all regions.

Use of Multimedia Models in Screening PBTs/POPs for Overall Persistence and Long-Range Transport

In recent years, there has been major growth in the range of applications of Mackay-type multimedia models in chemical assessment. Their use in estimating overall environmental persistence and transport potential has been strongly endorsed by the scientific community. Major research efforts to further develop and refine methods for estimating persistence and transport potential are underway.

Despite the popularity of these tools and models, regulatory assessment of POPs/PBTs continues to rely almost exclusively on the single-medium approach and criteria. It is necessary to develop a broad consensus on what is the proper role of multimedia models in screening and prioritizing new and existing chemicals with respect to PBT characteristics and in assessment of risk. Together with OECD, UNEP is organizing a workshop to promote closer interaction among assessors and model users/developers. The workshop will summarize currently available methods for estimating overall environmental persistence and LRT potential based on multimedia or other models, summarize available methods for developing criteria, identify ways in which these state-of-the-art methods can enhance risk assessment activities and critically examine and recommend ways in which assessors can obtain the data needed to run the models. The workshop will provide a basis for development of technical guidance documents to assist in chemical assessment activities.