

Global Chemicals Outlook: Rationale and Goals

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UNEP Chemicals Branch

Overview

Chemicals are an integral part of modern daily life with over 100,000 different substances in use. Chemicals make up our physical world; they form the basis of life and they are the building blocks from which we make our products. They are constituents of materials; parts of preparations and products; and are embedded in complex physical systems. Chemicals are used in a wide variety of products and play an important role in the world economy.

Industries producing and using these substances have an enormous impact on employment, trade and economic growth worldwide. Considered by various economic sectors as an essential engine for change and innovation, chemicals and related industries can play a key role in developing sustainable patterns of consumption and production.

While chemicals are a major contributor to national economies, sound management of chemicals throughout their lifecycle is essential in order to avoid significant risks to human health and ecosystems along with their associated economic costs. Sound management of chemicals is also critical in order to optimize the operation of chemical and related industries and develop sustainable patterns of production.

Over the past decade, the global community has brought critical chemicals related environmental problems to the forefront of the international policy agenda. Particular attention has been drawn to the widening gap among developed countries, developing countries and countries with economies in transition with regard to capacities to manage chemical-related risks. Key international instruments and processes have been agreed upon to address these concerns.

Despite these efforts, there are still significant challenges in implementing effective instruments and processes for sound management of chemicals. These include inadequate legal and technical capacity; lack of information on, and access to, affordable and safer technologies and alternatives; the lack of national coordinating frameworks to implement international agreements and processes; and the need to prioritize and integrate chemicals strategies and policies into national development plans.

Links to other international processes

To help address this persistent set of challenges and provide a convincing argument for a revitalized commitment to the sound management of chemicals, UNEP proposes a Global Chemicals Outlook. The work for this project will be carried out in the context of a number of important upcoming milestones, including the international community's

review of progress made in the implementation of Chapter 19 of Agenda 21 in 2010, and the dedication of the year 2011 as the International Year of Chemistry. More broadly, the Global Chemicals Outlook will contribute to the effort to achieve the 2002 World Summit on Sustainable Development (WSSD) goal that, by 2020, chemicals are to be produced and used in ways that lead to the minimization of significant adverse effects on the environment and on human health. It also will be highly relevant in achieving the Millennium Development Goals of eradicating severe poverty and hunger and achieving environmental sustainability by the year 2015.

To be developed in close coordination with the UNEP fifth Global Environmental Outlook (GEO 5), the Global Chemicals Outlook will be structured around the Driving-Forces-Pressures-State-Impact-Responses (DPSIR) framework to ensure that its findings are consistent in format and structure with those of the other complementary topics and policies covered in GEO 5. The Global Chemicals Outlook will promote a life cycle approach to the management of chemicals -- including production, use, and disposal -- as an integral component of reducing risk and achieving sustainable development.

Links to the Green Economy Initiative

Targeted at ministers and policy makers, the Global Chemicals Outlook will respond to the UNEP Global Green New Deal's call: to revive the global economy by motivating government and businesses to increase investment in the environment as an engine for economic recovery and sustainable growth, decent job creation and poverty reduction. As such, it will make a convincing economic case for investing in sound chemicals management and will send a positive message about the economic opportunities deriving from sound management of chemicals.

Conducted in concert with the full range of stakeholders under the Strategic Approach to International Chemicals Management (SAICM), it aims to contribute in particular to the regular International Conference on Chemicals Management (ICCM) strategic policy and program development under SAICM and identify opportunities for the chemicals sector to contribute not only to economic development but also to the reversal of the degradation of global ecosystems.

As leaders address the immediate need to stimulate the economy, they frequently also encounter the environmental threat that runs through unprecedented global crises. Concern for human health and the global environment has become a major force in international relations, and it provides a unique opportunity to increase the momentum for international cooperation and sustainable development.

With economies suffering, and people worried about food security, jobs, savings, and further deterioration of the global economy, countries are looking for innovative solutions to the current crisis that have both immediate and long-term positive impact. As a result, they are increasingly including green components within their stimulus packages to reshape the economy into one that is more sustainable in environmental and economic terms. They are looking toward building green economies, and envision a future that reduces carbon dependency, addresses poverty, generates decent jobs, maintains and restores natural ecosystems, and moves towards sustainable consumption. In this context, the sound management of chemicals needs to be recognized as a key factor in determining the success of the green components of stimulus packages.

The Global Chemicals Outlook will tackle the chemicals related causes of ill-health and disease and environmental degradation; explore the economic development opportunities related to the sound management of chemicals, as well as the potential costs of inaction and benefits of action on chemical hazards; and provide the related policy and management options and measures for promoting sound management of chemicals including adoption of safer alternatives.

The Changing Nature and Composition of the Chemicals Industry: Shift to Developing Countries and Countries with Economies in Transition

The continued growth pattern of global production, trade and use of chemicals exerts an increasing chemicals management burden on developing countries and countries with economies in transition. These countries often have the least capacity to deal with such complex challenges.

The OECD *Environmental Outlook to 2030* highlights the rapidly changing nature and composition of the chemicals industry with the number of producers, overall production, and use of chemicals all increasing in developing countries while industry in the OECD countries and transition countries consolidates and shifts towards the production of life-science and specialty chemicals. By 2020, developing countries are expected to lead the world in growth rate for high volume industrial chemicals, increasing their share of world chemicals production to 31%. Chemicals consumption in developing countries is likewise growing much faster than in developed countries and could account for a third of global consumption by 2020.

In light of the linkages between the condition of poverty and increased risks of environmental and occupational exposure to toxic and hazardous chemicals, these changes provide considerable challenges to the international community as it works towards sound management of chemicals. The poor are disproportionately affected, facing unacceptably high risks of both acute and chronic health impacts from environmental and occupational exposures, as well as potential loss of livelihood due to environmental degradation.

While OECD continues to assist its member states in their efforts to reduce risks posed by chemicals production and use, the changes in the industry now require a more global approach. Complementary to OECD's efforts, there is a need to consider the situation of chemicals policies in developing countries and countries with economies in transition, in particular with regard to their most vulnerable groups such as the developing fetus, infants and children, women, workers and the elderly. There is a need to provide policy makers with updated information for decision-making on concerted international action for the sound management of chemicals.

The Global Chemicals Outlook

UNEP will collaborate with OECD, WHO, ILO and other participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC) in developing the Global Chemicals Outlook. This Global Chemicals Outlook aims to provide a coherent framework for assessing and setting priorities to support an integrated comprehensive chemicals policy, to stimulate further international attention and action in this field, and to promote the transition to green or sustainable chemistry.

It will be carried out over a period of two years (2010-2011) and will cover three broad inter-linked areas:

- *Trends and indicators.* This portion will describe quantitative and qualitative changes in the production, use and disposal of chemicals, including products containing chemicals, with a focus on developing countries. It will also assess the health and environmental effects of chemicals, again with a particular focus on developing and transition countries.
- *Economic implications.* This portion will explore the benefits of the sound management of chemicals, as well as the potential costs of inaction and benefits of action on chemical hazards.
- *Instruments and approaches.* This portion will explore instruments and approaches for prevention and management of toxic chemical pollution and promotion of safer alternatives. This will include identifying legal, economic, technical and voluntary instruments and decision-making tools for minimizing toxic chemical pollution and promotion of safer alternatives including green and sustainable chemistry.

The Global Chemicals Outlook report will be an effective, practical and relevant publication to decision makers in assembling scientific, technical and socio-economic information on the sound management of chemicals in order to build capacity and to implement policy change to protect the environment and human health. It will provide a basis for the future priorities and activities of UNEP in the area of harmful substances and a continued and coherent framework for assessing and setting priorities among chemicals issues including emerging ones that are identified as being of major concern.

As a flagship report, the Global Chemicals Outlook will provide a stimulating and convincing set of scientifically based economic arguments to elevate chemicals management to the top of the international policy agenda as an essential condition to the achievement of sustainable development.

The Global Chemicals Outlook intends to further mobilize support and commitment from governments, private sector, civil society, academia and scientific societies toward a comprehensive, coherent and complementary policy approach to chemicals. It will highlight the significant role that the sound management of chemicals can play in addressing imminent challenges posed by climate change, energy security, water pollution, deteriorating ecosystems, and persistent global poverty, while stimulating the synergy of financial and technical assistance at national, regional and global levels.