

# United Nations Environment Programme

Distr.: General 01 October 2005

English only

Global Civil Society Forum Seventh Session Regional preparatory meetings October/ November 2005

### Background document on Chemical Northern perspective

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# International Chemicals Management: Background Paper for the 7th Global Civil Society Forum

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#### Introduction

This paper provides background information about international chemicals management to participants in the UNEP 7th Global Civil Society Forum (GCSF), including participants in the regional forums leading up to the GCSF. International chemicals management is one of three major topics scheduled to be discussed in Dubai at the 2006 Special Session of the Governing Council/Global Ministerial Environment Forum (GC/GMEF). Thus, it is among the major topics that participants in the GCSF are invited to address. The issue is particularly timely because an important milestone in international chemicals management will occur in Dubai at the same time as the GCSF. National environmental ministers, other government ministers and officials, and representatives of civil society and the private sector will attend an International Conference on Chemicals Management (SAICM). The SAICM will provide a blueprint for how the global community will accomplish the goal set out in the Plan of Implementation of the World Summit on Sustainable Development (WSSD) to "achieve by 2020 that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment."

#### **The Problem**

The \$1.6 trillion global chemicals industry produces tens of thousands of substances that are incorporated in, or used to make, products that touch the everyday lives of nearly every person on earth. Over 100,000 chemicals are registered for use in the OECD countries. Yet, for the vast majority of chemicals, governments have little or no data about how they are used, their toxicity and hazard characteristics, and the extent to which people and wildlife may be exposed to them.

Unfortunately, the regulatory systems of most countries are incapable of adequately protecting public health and the environment from harm caused by chemical exposures and accidents. Throughout the developing world, the chemicals management capacity of most governments is either rudimentary or non-existent. Lack of government oversight and training in these countries, along with corruption, can result in the frequent mishandling, misuse, and improper disposal of hazardous chemicals, causing high exposures to people and the environment, poisonings, and toxic spills and accidents.

Mismanagement is also a recurring problem in the Global North, especially by industrial interests that operate in or near economically disadvantaged and minority communities. An added concern that is attracting evermore attention is the constant, low-level chemical exposures people receive from ordinary foods and everyday products like many building materials, carpets and wall coverings, hospital supplies, cosmetics, electronics, and agricultural chemicals. The chemicals-producing industries generally deny the possibility of a relationship between low-level exposure and harms to human health. However, recent peerreviewed scientific studies increasingly point to the likelihood that such exposures are linked to the steady rise of breast, prostate, and other cancers; autism and learning disabilities; reproductive abnormalities and impaired reproductive functions; and genetic mutations that may be passed on from generation to generation.

Yet in most countries there is still a pervasive legal presumption that chemicals must be considered "innocent until proven guilty"—in other words, that chemicals production and use may be legally controlled by government regulators only if they can prove to a high level of certainty that a particular chemical poses an unacceptable risk to human health or the environment. This presumption—coupled with the fact that regulators generally have very little data about a given chemical's properties, uses, exposures, and risks—has led to widespread human exposure to a vast assortment of chemicals, and renders the chemicals management systems of most countries incapable of protecting human health and the

environment from the subtle effects of long-term, low-dose exposures. The resulting "body burden" of chemicals can be most insidious in children, whose developing bodies make them especially vulnerable, and in women of child-bearing age who unwittingly pass on a toxic legacy to their offspring.

#### Scope

All objects on Earth are comprised of chemicals. However, the substances of concern to international chemicals management, the upcoming GC/GMEF, and the 7th GSCF are not so all-encompassing. In these contexts, "chemicals" means substances that are produced by, or result from, human activities. These include industrial and household chemicals, fertilizers, and pesticides. They include chemicals contained in products and in wastes. They also include unintentionally produced byproducts of industrial processes or incineration, like dioxins. Pharmaceuticals, food additives, and radioactive substances in nuclear facilities and weapons are considered by some to be outside the scope of international chemicals management.

Some metals like mercury, lead, and cadmium are also considered chemicals of concern. For example, mercury, a potent neurotoxin, is mined for use in chlorine production, small-scale gold mining, some medicines, and other applications. It is also released into the environment in large quantities as a byproduct of burning coal, especially for electric power. Mercury was on the agenda of the February, 2005 UNEP GC/GMEF.

An especially dangerous class of chemicals is the persistent organic pollutants, known as "POPs." These chemicals can last for long periods of time—sometimes decades—in the environment, travel long distances on wind and water currents, bioaccumulate in human and animal tissue, and have significant, harmful impacts on human health and the environment, even at low concentrations. The Stockholm Convention on POPs deals at the international level with these chemicals by banning or severely restricting 12 of the most dangerous POPs, including dioxins, PCBs, and DDT, and allowing for the listing of additional chemicals with similar properties that meet defined criteria .

#### **International Regulation**

A number of important, legally binding instruments have been developed in the field of international chemicals management. Some of the earliest of these, negotiated and adopted under the auspices of the International Maritime Organization (IMO), address ocean dumping and oil pollution from ships. The UN Framework Convention on Climate Change (UNFCCC) and the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) deal with the effects that emissions of certain chemicals have on the atmosphere. Many regional and bilateral agreements have also been adopted, especially those dealing with hazardous wastes. The International Labor Organisation (ILO) has adopted agreements on various occupational aspects of chemical safety for workers. Numerous other binding international agreements also affect international chemicals management because of their impacts on trade or the regulation of chemicals.

However, the term "global chemicals conventions" commonly refers to a group of three treaties, all of which are administered by UNEP:

- **Basel Convention** on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. Adopted in 1989, the Basel Convention is intended to reduce the generation and transboundary movement of hazardous wastes to a minimum and ensure that such wastes are treated and disposed of as close to the source of generation as possible and in an environmentally sound manner. The Convention includes a Ban Amendment (which has not yet entered into force) to prohibit the export of hazardous wastes for final disposal, recovery, or recycling from developed (OECD) countries to developing countries.
- **Rotterdam Convention** on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. Adopted in 1998, the Rotterdam Convention is intended to protect human health and the environment by prohibiting international trade in certain hazardous chemicals unless the importing state first gives its informed consent, and by facilitating information exchange to promote the safe handling and use of such chemicals.

• **Stockholm Convention** on Persistent Organic Pollutants (POPs). Adopted in 2001, the Stockholm Convention bans or severely restricts production, trade, and use of twelve POPs known as the "dirty dozen." Most of these chemicals are no longer manufactured or used in industrialized countries; however, the nature of POPs means that people can be seriously impacted by releases of POPs that occur hundreds or even thousands of miles away. The Stockholm Convention contains provisions for the disposal and treatment of POPs wastes and stockpiles. It also establishes procedures for listing additional POPs that may be banned or severely restricted. Several proposals for new listings have recently been made, including for one of the brominated flame retardants (pentabromodiphenyl ether, banned for many key applications in the European Union, still used in the United States, and widely present in many products and households) and the pesticide lindane (banned in Europe, but still used in both the United States and Canada).

In addition to these treaties, several non-binding, "soft law" declarations continue to strongly influence the direction and development of international chemicals management. Among the most important of these are:

- Agenda 21 (1992), which contains plans of action on "Environmentally Sound Management of Toxic Chemicals" (Chapter 19) and "Environmentally Sound Management of Hazardous Wastes" (Chapter 20). Chapter 14, "Promoting Sustainable Agriculture and Rural Development," includes guidance on pesticide and fertilizer use.
- The **Rio Declaration** (1992) on Environment and Development (Rio Principles), which contains many of the core principles that have guided the development and implementation of international chemicals conventions and initiatives.
- The **WSSD Plan of Implementation** (2002), in which governments restated in Paragraph 23 their commitment to sound management of chemicals as contained in Agenda 21, the Rio Declaration, and other relevant instruments. The Plan of Implementation formally endorsed the target to "achieve by 2020 that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment."

#### **Intergovernmental Organizations**

Because international chemicals management directly implicates all three pillars of sustainable development—environmental, social, and economic—many different intergovernmental organizations (IGOs) are involved in some aspect of it. UNEP is the main IGO for the major chemicals conventions and initiatives. UNEP Chemicals, part of UNEP's Division of Technology, Industry, and Economics (DTIE), is considered the center for all of UNEP's chemicals-related activities. UNEP Chemicals is located in Geneva, where it administers the secretariat for the Stockholm Convention, co-administers (with FAO) the Rotterdam Convention secretariat, and has served as the SAICM secretariat during the SAICM preparatory phase. UNEP Chemicals runs the UNEP mercury programme. UNEP also administers the Basel Convention secretariat.

Other IGOs that work on international chemicals management issues by formulating policy, developing and implementing projects, and/or providing public funding include:

- World Health Organization (WHO)
- Food and Agriculture Organisation (FAO)
- United Nations Development Programme (UNDP)
- United Nations Industrial Development Organization (UNIDO)
- United Nations Institute for Training and Research (UNITAR)
- International Labour Organisation (ILO)
- Organisation for Economic Co-operation and Development (OECD)
- World Bank
- Global Environment Facility (GEF)

These IGOs are all either participating organizations or observers in the Inter-Organization Programme for the Sound Management of Chemicals (IOMC), which was established in 1995 to strengthen cooperation and increase coordination in the field of chemical safety. Additionally, the Intergovernmental Forum on Chemical Safety (IFCS), established to promote the implementation of Agenda 21's Chapter 19, periodically brings together representatives of governments, IGOs, and stakeholder groups to review progress, develop recommendations, and promote strategies and partnerships.

#### **Civil Society Stakeholders**

In addition to global NGOs such as Greenpeace and WWF (formerly the World Wildlife Fund), several NGO networks play prominent roles in the development and implementation of different aspects of international chemicals management. For the Stockholm Convention, the lead NGO network is the International POPs Elimination Network (IPEN). IPEN has expanded its focus to become the main NGO network involved in the SAICM.

The Basel Action Network is the primary NGO network working on the Basel Convention. Relatively few NGOs follow the Rotterdam Convention, but they include some members of the Pesticide Action Network (PAN), especially PAN-UK. Other NGO networks that are active in chemicals-related issues and whose memberships may overlap with IPEN, BAN, PAN and others are the Global Alliance for Incinerator Alternatives (GAIA) and Health Care Without Harm.

Industry is usually well-represented in most international chemicals management processes. In addition to the largest manufacturers (e.g., Dow, Dupont, Bayer, BASF, Syngenta, Monsanto), the industrial chemicals sector is represented globally by the International Council of Chemicals Associations (ICCA), while the pesticide industry is represented by the trade association CropLife International. The ICCA coordinates the Global High Production Volume (HPV) Chemical Initiative, a voluntary industry-government partnership intended to develop basic health and safety data for some of the most heavily produced and traded chemicals.

The majority of organized labor involvement in chemicals issues occurs through the ILO. Some labor organizations, such as the International Conference of Free Trade Unions (ICFTU) and others representing agricultural and chemicals workers, also sometimes participate in the other international chemical safety processes.

Indigenous peoples organizations, especially those of the Arctic region, were prominent in the Stockholm Convention negotiations, where they helped vividly personify the impacts of POPs on their health and culture.

#### Strategic Approach to International Chemicals Management (SAICM)

As noted above, the SAICM is intended to ensure that, by 2020, chemicals are used and produced safely throughout the world. Achieving this ambitious goal will require the involvement and support of many sectors of government and civil society. Thus, the SAICM is a multi-sectoral, multi-stakeholder process in which all participants—governments, IGOs, NGOs, industry, trade unions, indigenous organizations, etc.— have enjoyed similar participatory rights.

Since November 2003, three SAICM Preparatory Committees (PrepComs) have met, with the final one taking place in Vienna in September 2005. This preparatory phase will conclude in February 2006 at the International Conference on Chemicals Management (ICCM), which will run concurrently with the GCSF in Dubai. There, Environment Ministers, representatives of other national ministries, and stakeholder groups intend to adopt the SAICM and recommend its adoption by the GMEF and governing bodies of other international organizations.

The ICCM will adopt the SAICM in three parts, including a High-level Declaration, an Overarching Policy Strategy, and a Global Plan of Action. The High-level Declaration will provide the general context and intent of the SAICM, and will be made on behalf of "ministers, heads of delegation and representatives of civil society and the private sector" gathered at the ICCM. The Overarching Policy Strategy flows from the

commitments expressed in the High-level Declaration. As the "blueprint" for the SAICM, the Overarching Policy Strategy contains sections on scope, statement of needs, objectives, financial considerations, principles and approaches, and implementation and taking stock of progress. Finally, the Global Plan of Action will contain a broad range of "concrete measures" that will guide the actual implementation of the SAICM.

Among others, the following considerations should also be noted:

- The SAICM is a *non-binding* process; i.e., it is not intended to result in the adoption of a treaty or other legally binding instrument.
- Although the geographic scope of the SAICM is global, much of its focus is on southern countries and countries with economies in transition, because they are where some of the most urgent needs for chemical safety capacity exist.
- An essential component of successful SAICM implementation will be financial—i.e., who will pay for it and how. At the time of this writing, the needs implied by the SAICM Overarching Policy Strategy and Global Plan of Action far outstrip the apparent willingness of donor countries to commit to new and additional funding. NGOs and some governments have initiated a discussion of how a global or national levy on the chemicals industry might internalize the health, environmental, and regulatory costs related to the industry and help fund chemicals management systems in developing countries.

#### Some Additional Chemical Safety Issues

The following are among numerous other issues that are relevant to international chemicals management and thus to the 7th GCSF:

a. **Millennium Development Goals (MDGs)**: The development and implementation of effective chemical safety policies are essential to the success of the MDGs. Yet so far there has been very little formal discussion of this relationship.

b. **Registration, Evaluation, and Authorization of Chemicals (REACH)**: This pending European Union legislation is intended to harmonize the treatment of all chemicals manufactured, sold, or imported within the EU by requiring toxicity and exposure data for chemicals produced over certain amounts, including those chemicals that have been in commerce for decades and thus may not have been subject to regulatory evaluation that applies to new chemicals. EU officials have chosen not to advocate a REACH-like model for the SAICM or other global processes, instead focusing on finalizing and implementing REACH at home. However, because the success of REACH could help undermine the "innocent until proven guilty" approach to chemicals regulation, the chemicals industry and the U.S. government have collaborated vigorously to undermine REACH by claiming that its implementation of the precautionary principle will unfairly burden industry and violate international trade laws.

c. **Risk assessment and precaution**: These two core concepts of international chemicals management are frequently mischaracterized by different interests for political or ideological reasons. *Risk assessment* is an analytical process intended to produce quantitative estimates regarding (a) the probability that an individual will suffer disease, death, or other harm as a result of a specified exposure and (b) the consequences of such exposure to an entire population. The usefulness of any risk assessment will be limited by the quality and depth of scientific information available. How uncertainty in risk assessment is treated depends on the assumptions and biases that are built into a given regulatory approach. *Precaution* is a decision-making tool for when and how to take action in the face of potential threats where there is scientific uncertainty. Chemicals management approaches that utilize precaution may, for example, prohibit the use of chemicals where producers fail to provide adequate toxicity or exposure data to assess the substance's risks, or they may restrict or ban the production and use of substances that have potentially hazardous qualities like high persistence or bioaccumulation. A key goal of most NGOs working on chemical safety is to expand the use of precaution in the international and domestic regulation of chemicals.

d. **Coordination and integration**: Like other aspects of international environmental governance, chemical safety policies, processes, and institutions have historically developed in an ad hoc fashion. This has sometimes led to inefficiencies, duplication of effort, and "treaty fatigue" for many countries. Achieving greater coordination and integration between the various chemicals conventions, secretariats, IGOs, and public funding resources is an important objective of the SAICM.

e. **Financial resources**: For most areas of international chemicals management, public finance is insufficient to meet the needs of developing countries and economies in transition for effective implementation of their chemical safety objectives and commitments. Of the major chemicals conventions, only the Stockholm Convention (through the GEF POPs focal area) provides for mandatory funding of the treaty's incremental costs for these countries; the Basel and Rotterdam Conventions presently have only voluntary funds. Greater and more reliable funding for these conventions, the SAICM, and other chemical safety initiatives—including the possibility of expanding the GEF POPs focal area to an integrated chemicals management focal area—is an important topic of discussion.

## Web Links

Agenda 21, www.un.org/esa/sustdev/documents/agenda21/index.htm

Basel Action Network (BAN), www.ban.org

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention), www.basel.int

Center for International Environmental Law (CIEL), www.ciel.org

CropLife International, www.croplife.org

Food and Agriculture Organisation (FAO), www.fao.org

Global Alliance for Incinerator Alternatives (GAIA), www.no-burn.org

Global Environment Facility (GEF), www.gefweb.org

Global High Production Volume (HPV) Chemical Initiative, www.cefic.be/activities/hse/mgt/hpv/hpvinit.htm

Greenpeace Toxics Campaign, www.greenpeace.org/international/campaigns/toxics

Health Care Without Harm, www.noharm.org

Intergovernmental Forum on Chemical Safety (IFCS), www.who.int/ifcs

International Conference of Free Trade Unions (ICFTU), www.icftu.org

International Council of Chemicals Associations (ICCA), www.icca-chem.org

International Labour Organisation (ILO), www.ilo.org

International Maritime Organization (IMO), www.imo.org

International POPs Elimination Network (IPEN), www.ipen.ecn.cz

Inter-Organization Programme for the Sound Management of Chemicals (IOMC), www.who.int/iomc

Millennium Development Goals (MDGs), www.un.org/millenniumgoals

Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol), www.unep.org/ozone/index.asp

Organisation for Economic Co-operation and Development (OECD), www.oecd.org

Pesticide Action Network (PAN), www.pan-international.org

Registration, Evaluation, and Authorization of Chemicals (REACH), http://ecb.jrc.it/REACH/

Rio Declaration on Environment and Development (Rio Principles), www.un.org/documents/ga/conf151/aconf15126-1annex1.htm

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention), www.pic.int/index.html

Stockholm Convention on Persistent Organic Pollutants (POPs) (Stockholm Convention), www.pops.int

Strategic Approach to International Chemicals Management (SAICM), www.chem.unep.ch/saicm

UN Framework Convention on Climate Change (UNFCCC), www.unfccc.int

UNEP Chemicals, www.chem.unep.ch

- UNEP GC/GMEF 2005 Decision 23/9 on Chemicals Management (including Mercury Programme), www.unep.org/gc/gc23/documents/GC23-Proceedings.doc (at page 38)
- United Nations Development Programme (UNDP), www.undp.org

United Nations Industrial Development Organization (UNIDO), www.unido.org

United Nations Institute for Training and Research (UNITAR), www.unitar.org

World Bank, www.worldbank.org

World Health Organization (WHO), www.who.int

World Summit on Sustainable Development (WSSD) Plan of Implementation, www.un.org/esa/sustdev/documents/WSSD\_POI\_PD/English/WSSD\_PlanImpl.pdf

WWF Toxics Campaign, www.worldwildlife.org/toxics