Sound Management of Chemicals and Waste

Highlights

As the world's population approaches eight billion, chemicals and waste (and their sound management) become important factors in achieving the 2030 Agenda for Sustainable Development. Sound chemicals and waste management relates and contributes to achieving almost all of the Sustainable Development Goals (SDGs), for example, SDG 3 on Health, SDG 6 on Clean Water and Sanitation, SDG 11 on Sustainable Cities, and SDG 12 on Sustainable Consumption and Production.

UNEP plays an important role in advancing sound chemicals and waste management by catalyzing and coordinating international action, by assisting countries in raising the priority given to the topics, and by providing clearinghouse services for relevant scientific and technical knowledge. Activities are implemented at the global, regional and national levels through partnerships with intergovernmental organizations, national and local governments, industry, and civil society organizations.

Advancing international policy development and commitment

Landmark multilateral environmental agreements addressing chemicals and waste

UNEP plays a leading role in the development and implementation of international chemicals and waste-related agreements. Over the past three decades, UNEP supported, for example, the development and adoption of the Montreal Protocol on Substances that Deplete the Ozone Layer, the Stockholm Convention on Persistent Organic Pollutants (POPs), the Basel Convention on the Control of Trans-boundary Movement of Hazardous Wastes and their Disposal, and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

A new legally binding instrument to tackle Mercury: The Minamata Convention

Mercury levels in certain species of open-ocean fish are reaching levels that make them unsafe for human consumption. Similarly, millions of small-scale artisanal gold miners are exposed to toxic mercury, and mercury continues to be emitted from coal-fired power stations today. The Minamata Convention on Mercury adopted in 2013 addresses these problems. As of April 2016, the Convention had 128 signatories and was already ratified by 25 countries. UNEP provides the interim secretariat for the Convention and, upon entry into force, will be performing the functions of its permanent Secretariat.

Facilitating strategic policy development through SAICM

The Strategic Approach to International Chemicals Management (SAICM) brings together governments, industry and civil society to agree on and implement concerted action in the area of chemicals management. Created in 2006, SAICM focuses on the achievement of the 2020 goal of sound chemicals management adopted at the World Summit on Sustainable Development in Johannesburg in 2002. SAICM has catalyzed international and national action, ranging from addressing emerging policy issues (such as chemicals in products and endocrine disrupting chemicals), to facilitating the development of National Chemicals Profiles in more than 100 countries. The 4th International Conference on Chemicals Management (ICCM 4) in October 2015 brought together over 800 participants and provided significant momentum for achieving the sound management of chemicals by 2020. ICCM4 also set the stage for intersessional work on chemicals and waste management in preparation of ICCM5 scheduled to take place in 2020.

Global action to address lead in paint: a partnership approach

Recent studies estimate that reduced cognitive potential (loss of IQ points) due to preventable childhood lead exposure represents a cost of nearly $US 1 trillion annually in low- and middle-income countries. UNEP and WHO are co-leading the Global Alliance to Eliminate Lead Paint to tackle this problem. By mid-2015, 59 countries had put in place legally binding restrictions on the use of lead in paints. The Alliance has set a target to achieve restrictions in all countries by 2020.

From policy to action: implementation of global agreements

A global alliance to eliminate pops

Polychlorinated biphenyls (PCBs) belong to the original group of 12 persistent organic pollutants (POPs) banned or restricted under the Stockholm Convention. They are carcinogenic and lead to reproductive impairment and immune system dysfunctions. To address this, UNEP coordinates the PCB Elimination Network, a multi-stakeholder mechanism promoting initiatives to ensure environmentally sound management of PCBs.

UNEP also leads the Global Alliance for the Development of Alternatives to DDT, a partnership to scale up best practices and catalyze new initiatives for the development and deployment of alternative vector control products and methods. The alliance was established in response to a 2013 decision of the Conference of the Parties (COP) of the Stockholm Convention.

Country-level phase-out of ozone depleting chemicals

The Montreal Protocol is a global treaty which has successfully fostered the phasing-out of the production and consumption of ozone-depleting substances (ODS). UNEP hosts the Ozone Secretariat of the Multilateral Fund (MLF) and is an Implementing Agency through its OzonAction initiative. OzonAction has provided assistance to 148 developing countries through its Compliance Assistance Programme (CAP). Focus is placed on deploying technologies for improving the energy efficiency of refrigeration and air-conditioning using ozone-safe alternatives.

National action to implement the Minamata Convention

UNEP hosts the Secretariat of the UNEP Global Mercury Partnership, a multi-stakeholder alliance that gathers over 150 partners from governments, industry, NGOs, and academia and assists countries and stakeholders to address the adverse effects of mercury. By April 2016, more than 40 countries were carrying out Minamata Initial Assessments (MIAs) and more than 10 countries were in the process of developing National Action Plans (NAPs) on artisanal and small-scale gold

mining (ASGM) with support of UNEP and funding from the Global Environment Facility (GEF), while a number of additional MIAs and NAPs projects where in the pipeline. UNEP is also taking steps to address mercury emissions from coal combustion and the ASGM sector.

Tools for integrated national policy making and for sound management in industries

UNEP offers a set of scientific and technical tools and methodologies to support integrated chemicals and waste management throughout the product life cycle. This includes advice on how best practices for risk assessment can be adapted to national circumstances, and how national programmes for chemical accidents prevention and preparedness can be implemented taking into account national circumstances; tools and methodologies to examine environmental and economic parameters of risk reduction; supporting environmental management, eco-innovation and responsible production for chemical safety in small- and medium-sized enterprises; and assisting in the exchange of information on chemicals in products throughout their life cycle.

Strengthening national institutions and capacities

SAICM's Quick Start Programme (QSP) is a voluntary trust fund administered by UNEP which had mobilized more than $US 40 million by December 2014. With some 180 approved projects, the QSP has been instrumental in supporting capacity building for sound chemicals management in more than 100 countries. Over half of the beneficiary countries are least-developed countries or small-island developing states.

A new voluntary trust fund known as the Special Programme supports national institutional strengthening for the Basel, Rotterdam and Stockholm Conventions, the Minamata Convention and SAICM. The Special Programme was adopted as part of a resolution on chemicals and waste by the United Nations Environment Assembly in 2014 (UNEA-1). It has been operationalized in 2015 and significant resources to the trust fund have been provided by a number of donors.

UNEP's Osaka-based International Environmental Technology Centre (IETC) supports governments in implementing sound management of waste under the Global Partnership on Waste Management. This partnership specifically focuses on the implementation of integrated waste management strategies and techniques at national and local levels.

Financial and technical support through the GEF

UNEP is one of the GEF Implementing Agencies and has a successful track record of supporting countries to access GEF resources. Support has covered, for example: National Implementation Plans for the Stockholm Convention; Minamata Initial Assessments; National Actions Plans on artisanal and small-scale gold mining; monitoring of POPs and mercury releases; phase-out and sound management of POPs (e.g. DDT and PCB); elimination of the use of lead in paint; and information exchange and promotion of alternatives to the use of POPs and chemicals in products, for example in textiles and building materials.

Creating and sharing new policy-relevant knowledge

Advancing scientific understanding of POPs

UNEP is committed to risk identification, assessments and monitoring based on sound science. Under the Stockholm Convention, UNEP assists in the generation of high-quality data on concentrations of POPs in the air, water and humans as part of a Global Monitoring Plan on POPs. UNEP also develops guidelines, quality standards, tools and methods to analyze initial and new POPs, and supports training and capacity building for laboratories, governments, and other institutions.

New chemicals of concern: endocrine disrupting chemicals

Endocrine disrupting chemicals (EDCs) alter functions of the endocrine system and consequently cause adverse health effects. ICCM3 in 2012 agreed that EDCs met the criteria as an Emerging Policy Issue of global concern and called for international action. UNEP, together with partners, has been working to provide up-to-date scientific and policy information on EDCs to policy-makers and other stakeholders, with a particular focus on addressing the needs of developing nations and countries in economic transition.

UNEP global outlook reports: understanding the present, shaping future policy

An important aspect of UNEP's work is to "think ahead" and identify trends and policy options which have the potential for significant leverage and impact. The 2012 *Global Chemicals Outlook* report addressed changing trends in production and use of harmful substances and the cost of inaction. The 2015 *Global Waste Management Outlook* is a flagship publication that provided a timely status report and call for action to the international community to scale up action on waste management. The second Global Chemicals Outlook (GCO-II) scheduled for 2017 will feature key trends and policy analysis to inform international discussions concerning chemicals and waste management beyond 2020. GCO-II will also explore opportunities for a long-term approach to chemicals and waste management that can help avoiding problems at the outset, rather than mitigating negative impacts once they occur.

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