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> Policy options and actions for expediting progress in implementation: chemicals

#### **Report of the Secretary-General**

#### Summary

Ensuring sound management of chemicals is an important element of achieving the Millennium Development Goals. The global production, trade and use of chemicals are increasing, placing increasing chemicals management demands on developing countries. The approach to chemicals management needs to be much better informed by a life-cycle and sustainable development perspective, considering the multiple social, economic and environmental dimensions of chemicals' impacts on human well-being. The focus of future policy options with respect to chemicals management should be to mainstream sound management into MDG-based national development planning process; strengthen regulations and legislation to improve chemical safety, prevent and reduce risks; enhance information accessibility and sharing; promote alternatives to toxic chemicals; strengthen the means of implementation including mobilization of financial resources at

# I. Introduction

1. At its eighteenth session, the review session of the fourth implementation cycle 2010-2011, the Commission on Sustainable Development conducted an evaluation of progress achieved on the thematic issue of chemicals, as contained in Agenda 21, the Programme for the Further Implementation of Agenda 21 and the Johannesburg Plan of Implementation.<sup>1</sup> The Commission also identified constraints and obstacles as well as new challenges and opportunities to implementation in the thematic area of chemicals.

2. At its nineteenth session, the policy session of its current implementation cycle, the Commission will make decisions on policy options and practical measures to expedite implementation in the thematic area of chemicals. The Commission's session will be preceded by its intergovernmental preparatory meeting that will prepare a draft negotiating document for consideration by the Commission.

The present report is a contribution to the discussion at the 3. intergovernmental preparatory meeting on policy options and practical actions to expedite progress on the sound management of chemicals. It responds to the challenges and obstacles highlighted in the report of the Commission's eighteenth session. The report was jointly prepared by the Department of Economic and Social Affairs (DESA) of the United Nations and the United Nations Environment Programme (UNEP). It benefited from inputs provided by Governments, Major Groups and the United Nations system, in particular the Strategic Approach to International Chemicals Management (SAICM), the Inter-Organization Programme for the Sound Management of Chemicals (IOMC)<sup>2</sup>, the Stockholm Convention on Persistent Organic Pollutants (POPs), the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.

4. Ensuring sound chemicals management is an important element of achieving the Millennium Development Goals (MDGs), including the goal on poverty eradica

economies such as agriculture, health, energy and industry. The main message from the eighteenth session of the Commission on Sustainable Development (CSD-18) is that significant but insufficient progress has been made in sound chemicals management at all levels. Serious incidents still occur and there are still negative impacts of chemicals on both human health and the environment. Much remains to be done to achieve the 2020 goal on sound management of chemicals.

5. The global production, trade and use of chemicals are increasing, with growth placing an increasing chemicals management burden on developing countries. As a result, significant changes are needed in the way societies manage chemicals. Due to the very nature of chemicals, future actions have to be approached from a sustainable development perspective.

Changing unsustainable patterns of production and consumption 6. was considered in the Johannesburg Plan of Implementation (JPOI), among others, as a cross-cutting and overarching objective of, and requirement for sustainable development. essential From the perspective of a life-cycle approach, there are strong intersections between sound management of chemicals and sustainable consumption and production patterns, including in such area of actions as mainstreaming of practices for corporate social and environmental responsibility (CSER), responsible advertising, marketing and consumer information tools including labelling and certification, and scaling up work of consumer groups.

# **II.** Policies for sound management of chemicals

## A. Governance

7. The importance of sound management of chemicals for sustainable development is not sufficiently recognized by countries. As a result, chemicals management is not sufficiently integrated into the national development strategies and plans. The activities for the sound management of chemicals are in many developing countries not a priority in their development policies and consequently, are underfunded. A similar situation is also found in donor countries' policies for development assistance.

8. Chemicals management is a cross-sectoral issue that involves a number of ministries in national governments, together with a wide range of stakeholders. It remains a challenge to foster cooperation

among different actors both at the national and international level to ensure coherence, consistence and resource efficiency.

9. In many countries, the governance structure comprising national legal and institutional infrastructures for chemicals management is fragmented or incomplete, including an inconsistent involvement of the local authorities. There is a lack of national coordinating frameworks engaging relevant stakeholders in chemicals management, including the implementation of international agreements and processes.

10. Another challenge is that there continues to be a lack of implementation of the Rio principles on sustainable development in

problems rather than just respond to the negative impacts once they occur;

(c) Evaluate and strengthen legal and institutional infrastructures at the national level to ensure a coherent and efficient administrative system. There is in particular a need for focusing on the enforcement of laws and regulations;

(d) Strengthen institutional capacity of national governments to develop legislative and regulatory systems for the environmentally sound management of hazardous chemicals, including effective frameworks for chemical accident prevention and preparedness;

(e) Link the health and environmental sectors to address chemical safety, risk prevention and reduction, and avail of the WHO offices to strengthen coordination at the national and regional levels; and

(f) Implement the Rio principles including CBDR, the precautionary approach, polluter pays and internalization of environmental costs, and develop economic instruments to promote sound management of chemicals throughout their life-cycle.

Box 1: Key components of a sound management of chemicals governance framework

## **B.** Information sharing

Information exchange and effective communication throughout 12. the life-cycle of chemicals is a key to enable users to avoid exposure to hazardous chemicals and to manage risks to users and the environment. Progress has been made in this area: about 50 countries either have or are developing a national or regional pollutant release and transfer register (PRTR) system<sup>3</sup>; the legal instruments implementing the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) have entered into force in many countries; and the prior informed consent procedure (PIC) is implemented through the Rotterdam Convention. The information networks on chemicals at the international level have been established by relevant agencies and multilateral conventions, such as the clearing house being developed and managed by SAICM; the clearing house under the Basel, Rotterdam and Stockholm Conventions; the International Chemical Safety Cards (ICSCs) produced and updated by WHO and ILO; and the Global Portal to Information on Chemical Substances (eChemPortal) hosted by OECD.

13. Although more information on chemicals has become available and more easily accessible since WSSD, there is still significant room for improvement. CSD-18 particularly identified that the information and data on chemical safety and toxicity, especially in national and local languages, is still insufficient. There is furthermore insufficient information sharing on alternatives to toxic chemicals, which is especially important to developing countries and countries with economies in transition. Countries also have insufficient capacity to interpret and utilize information on chemical safety and toxicity.

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15. Another challenge identified in CSD-18 is insufficient information on chemicals in products. The increasing presence of toxic chemicals in productseposes risks to human health when they are recycled or become wa also have become a global problem through international trade. Examples include children's toys, textiles, je

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Vulnerable groups such as children and pregnant women are at particular risk from exposure to a variety of substances contained in products. Yet there is no global system for providing information on chemicals in products

(d) Strengthen the community's right to knowledge through product labels, environmental reports, environmental impact assessments, ecoaudits, emission inventories and similar instruments. Data relevant to the health and environmental impacts of chemicals should be made available to the public;

(e) Disseminate information on chemical content of products and the impact on human health. Further initiatives for promoting producer responsibility for providing clear and accessible information to the public on chemicals in products are needed;

(f) Promote universal access to reliable information on hazardous substances through the adoption of a global system for communicating risks and hazards;

(g) Develop global networks to facilitate the sharing of good disponding the part of the sharing of good results of ae rD/ from j140 the search to improve the sound management of hazardous substances;

(h) Strengthen the regional information exchange networks supported by UNEP;

(i) Strengthen information sharing including research findings on chemical toxicity between developed and developing countries; and

(j) Strengthen information exchange on safe and accessible alternatives to toxic chemicals.

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27. There exist numerous tools for risk assessment and management. However, these tools have been developed by the developed countries for their particular circumstances. Therefore, there is a need to adapt and develop assessment tools and methodologies that fit the national environmental, ecological and socio-economic conditions relevant to chemicals management in developing countries and countries with economies in transition.

28. The reliance of countries on hazardous chemicals has demonstrated the need for the development of safe alternatives that can substitute the harmful chemicals or alternative approaches that reduce the use and release of chemicals.

29. Effective policies and measures for chemical safety, risk prevention and reduction depend on a number of activities, such as to:

(a) Increase awareness on the importance of chemicals safety among decision-makers at the national and local levels, as well as among the private sector, civil society and users of chemicals. This is a prerequisite for

(e) Develop necessary laboratory capacity for monitoring of the occurrence and effects of chemicals in the environment. This could be done through regional and sub-regional cooperation in order to decrease the demands on individual national budgets;

(f) Speed up activities to address the existing stocks of obsolete chemicals that are polluting the environment. Countries need to design proactive strategies to avoid future accumulation of large stocks of chemicals when they are banned or taken off the market;

(g) Foster industry and academia research on safer alternative products and technologies for replacing the use of hazardous chemicals and promote more sustainable approaches such as integrated pest management and organic farming methods;

(h) Asses existing methods at the international level for chemical risk assessment and management and adapt them to the needs of developing countries and countries with economies in transition. It should be considered to develop international codes and standards for industrial chemicals similar to the International Code of Conduct for Distribution and Use of Pesticides. These initiatives could build on existing materials and approaches such as the GHS, PRTRs and make use of national and regional experiences. IOMC organizations should consider working together to provide countries with such coherent guidance and standards for industrial chemicals.

## **D.** Monitoring

30. The huge quantities and varied characteristics of chemicals being produced, traded and used mean it is not practicable to monitor all these chemicals in the same way. The chemicals that are of most concern are those that are hazardous, persistent in the environment, and travel long distance in the environment from where they are released.

31. Current monitoring programmes fall largely into two categories: monitoring environment impacts and monitoring human health impacts (bio-monitoring). Environmental monitoring indicators include soil, air, water, incident reporting, animals and plants. Bio-monitoring indicators include human milk, blood, urine, incident reporting, food and other household products. For example, a monitoring programme can be routine sample checks to determine level of heavy metals in raw materials such as meats. Figure 1: Indicators used to monitor chemicals

34. The overall challenges facing monitoring include: monitoring of general effects of chemicals on human health and environment is extremely difficult as the effects of chemicals might be confounded by other effects; there is a lack of monitoring of the potential risks of chemicals throughout their life-cycle; there are insufficient monitoring data on chemical contamination of environmental media and on human exposure; and there is the need to expand the current list of indicators.

35. More efforts should be put to develop monitoring programmes that specifically address each point of the chemical life-cycle. The policy options on strengthening monitoring should include to:

(a) Further develop monitoring indicators. This requires more investment in technological advancements in terms of monitoring techniques and detection mechanisms to make monitoring of chemicals more accessible;

(b) Better use existing data and data extrapolation in developing best practices and increase the access to information gathered from the monitoring. There is a need to develop a centralised database with relevant information for each category of chemicals and the best practices in monitoring them. There is also a need to bring together public health and environment experts and activities under a comprehensive integrated surveillance and monitoring system;

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stakeholders to provide expertise and resources. On nanotechnology, the resolution encourages stakeholders to provide assistance to developing countries and countries with economies in transition to enhance required capacity, invites stakeholders to work together on research, and requests them to facilitate access to and share information. In addition, the Conference agreed to establish a contact group to discuss the institutional arrangements for the intersessional period of the ICCM, including those needed for future work on emerging policy issues.

41. The emerging issues merit concerted actions at all levels, including to:

(a) Strengthen research and risk assessment on the emerging issues to reduce chemical risks, including new chemicals under MEAs, e-waste and nanotechnologies;

(b) Use ICCM, the governing body of SAICM, to focus attention and call for appropriate action on emerging issues as they arise and forge consensus on priorities for cooperative action;

(c) Support existing programs and projects on emerging issues, such as the contact group of SAICM on emerging policy issues, the SAICM's workshop on electrical and electronic products to be implemented by the Basel and Stockholm Conventions and UNIDO, the partnership between UNITAR and OECD in addressing awarenessraising and development of capacities in developing countries and countries with economies in transition on nanotechnology and manufactured nanomaterials, and the OECD-IOMC work on the management of perfluorinated chemicals and the transition to safer alternatives; and

(d) Strengthen related information sharing between countries.

## F. Partnerships

42. Environmentally sound management of chemicals is reliant on the participation of all stakeholders. Decisions made with the involvement of relevant stakeholders, including NGOs, civil society and the private sector, are much more likely to be put into practice successfully. Not only do these actors provide access to a wide range of expertise, they also provide pertinent local information from which to assess policy options. They may perform monitoring and data collection as well as carrying out community outreach, public education and awareness raising activities.

43. However, the growing acknowledgement of the important role of these stakeholders in chemical policy and management has not been matched with their effective involvement in the policy development processes. In some countries, there is a lack

47. The Global Environment Facility (GEF) has opened up a funding window for SAICM related activities. However, this only covers a very small fraction of what is needed for a full implementation of SAICM.

48. The International Conference on Chemicals Management (ICCM) decided at the adoption of SAICM that the Trust Fund for QSP will expire by 2013 with the last disbursement of funds in 2012. However, the need for funds to support sound management of chemicals under SAICM will not expire at that ti

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represents an attempt to move beyond the environment and to include

ective in maintaining coordination in SAICM related activities at the

options and measures to ensure an enabling international environment for the sound management of chemicals,

ional policy framework for chemicals, cluding through full and effective implementation of SAICM. The

s between xisting institutions and processes on chemicals, including the

outcomes of the discussion of CSD need to be transmitted to other fora dealing with chemicals;

58. On future actions towards an effective international legal framework for sound management of chemicals, policy measures and actions should be taken to:

(a) Mobilize financial resources at all levels, both public and private, to support the ratification, implementation and enforcement of legal instruments for chemicals management and hazardous waste, especially the above conventions;

(b) Integrate chemicals management and implementation of the internationally legally binding instruments into national development plans, in order to ensure bilateral and national funding for the implementation and enforcement of the conventions as well as catalyse initiatives and partnerships to enhance technical and financial assistance to developing countries, including support from industry;

(c) Foster cooperation and coordination among the three conventions at the national level and ensure national synergies in implementation and enforcement of the conventions. This could be achieved through a revised mandate of the national coordination mechanisms already established at the national level to foresee further collaboration between the ministries involved in the implementation of conventions and the general chemicals agenda. It would be important for the coordination mechanism to include the main economic and planning ministries in order to ensure their support for the implementation of the conventions;

(d) Successfully implement the obligations pertaining to the newly listed chemicals to the Annexes A, B and C of the Stockholm Convention including the nine chemicals that have entered into force on 26 August 2010;

(e) Successfully ratify the Ban amendment under the Basel Convention that bans hazardous wastes exports for final disposal and recycling from Annex VII countries (Basel Convention Parties that are members of the EU, OECD, Liechtenstein) to non-Annex VII countries (all other Parties to the Convention);

(f) Successfully negotiate the globally legally binding instrument on mercury. In addition to the existing legal instruments, the international community, at the beginning of 2009, decided that a legally binding instrument on mercury would be developed. The goal is to develop such an instrument by 2013; and

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and mainstreamed as national priorities in devel

(e) Provide a coherent package of decision-making tools and guidance along with a set of scientifically based economic arguments that make convincing economic case for investing in the sound management of

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66. A life-cycle approach should be adopted, and the commitment to basic principles such as the precautionary and polluter pays principles; no data, no market; public right to know; and progressive substitution of the most dangerous chemicals should be strengthened.

67. There is also a need to seek and address interlinkages between chemicals and other environmental domains such as with climate change, biodiversity, land degradation and water resources in order to reinforce the contribution of global action for sound management of chemicals to achieving sustainable development

68. Legislation to require producers and importers to improve the safety of their products, and the monitoring and enforcement of existing regulations should be enhanced. Information in relation to chemicals in products should be improved.

69. The institutional capacity of national governments to develop legislative and regulatory systems for the environmentally sound production and use of hazardous chemicals, including the effective frameworks for chemical accident prevention and preparedness, should be strengthened.

70. Clear and concise indicators, including goals, targets and timelines of what countries want to achieve on sound chemicals management, should be developed, with priorities spelt out clearly in the national development plan.

71. Research and promotion of alternatives to toxic and persistent chemicals should be strengthened. Existing information on safe and accessible alternatives, e.g. guidance developed by the scientific committee of the Stockholm Convention, should be widely disseminated to countries to assist them when developing and implementing their regulatory and enforcement framework.

72. Public health could be improved through emphasizing the need to engage fully the health sector in national, regional and international strategic approach forums and in the national inter-ministerial processes. Strategies directed specifically at the health of women, children and workers should be developed.

73. Environment and health sector managers should become more effective partners in the development planning process, including in the area of sound chemicals management, in terms of providing timely

should be considered. A permanent and sustainable SAICM financial mechanism to replace the QSP Trust Fund should be established.

79. The existing international instruments and programmes, including the key chemicals conventions such as the ILO Chemicals Convention as well as the Stockholm, Rotterdam and Basel Conventions, should be fully implemented. Coherence and synergies among these instruments should be enhanced at all levels, including through the coordination among focal points for the conventions and the SAICM and through greater use of the regional centres established under the conventions.

80. Actions on emerging issues, such as e-waste and nanotechnologies, should be strengthened, including through more cooperation on research, risk assessment and information sharing between countries.

81. The international policy and legal framework for chemicals should be further strengthened, including through full and effective implementation of SAICM, successful negotiation of the globally legally binding instrument on mercury, examination of the usefulness of broader chemical legal instruments, and development of international structures for sound management of chemicals post-2020.