IPEN Text Recommendations and Supporting Rationale for 'The Future We Want'

February 2012

IPEN additions are in bold with an accompanying rationale and references.

Chemicals and Waste Section

94 bis. We acknowledge that sound chemicals management is essential to achieve the Millennium Development Goals, and that chemical safety and chemical policy reform incorporating the precautionary approach occupies a place at the core of the economic and development agenda. We stress that sound chemicals management must be taken into account while determining the direction of international development assistance and a program implemented to eliminate the toxic legacy faced by countries as a result of unsound chemicals management. Concrete and measureable deadlines are crucial to ensuring focus, credibility and public trust

Rationale:
The High Level Declaration of the Strategic Approach to International Chemicals Management (SAICM) acknowledges that '*sound management of chemicals is essential to achieving sustainable development, including the eradication of poverty and disease, the improvement of human health and the environment and the elevation and maintenance of the standard of living in countries at all levels of development,'* consistent with the Millennium Development Goals (MDG). The UN Human Rights Committee found that 'living in a pollution-free world is a basic human right' and the fundamental right to life is threatened by exposures to toxic chemicals, hazardous wastes, and contaminated drinking water. There is a global consensus that sound management of chemicals is integral to sustainable development yet, it has not been successfully integrated into development assistance, where chemicals management is often viewed as an environmental issue and not a health and development concern. To achieve the MDGs, chemical management and policy reform must be a core aspect of the economic and development policy agenda.

Priority attention should be given to addressing the problem of accumulated hazardous industrial waste, including stockpiles of banned and obsolete pesticides and agricultural chemicals, as well as mining waste based on a polluter pays principle. It is necessary to implement comprehensive activities for rehabilitation and safe use of contaminated areas, accounting for the economic and environmental prospects of their further use.

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1. Strategic Approach to International Chemicals Management (SAICM), SAICM texts and resolutions of the International Conference on Chemicals Management, 2006, High Level Declaration http://www.saicm.org/documents/saicm%20texts/SAICM_publication_ENG.pdf
2. 'Living In A Pollution-free World A Basic Human Right' Press Release, 27 Apr 2001 http://www.grida.no/news/press/2150.aspx

94 ter. We recognise that to achieve a sustainable future, a sustainable chemical industry is essential. The chemical industry plays a significant role in the global economy with a steadily increasing share of the world's chemical production shifting to developing and transition countries. We support cost internalization mechanisms as an effective method to provide the resources needed to establish infrastructure and foster investment in safer practices and in the substitution of hazardous chemicals and materials with the least toxic alternatives possible. Clear criteria need to be developed to encourage investments in a

sustainable chemical industry and help to phase out unsustainable chemical production, support green chemistry and protect developing and transition countries from unjust burdens.

Rationale:
The chemical industry plays a significant role in the global economy with sales in 2007 of more than three trillion U.S. dollars. A steadily increasing share of the world's chemical production is shifting to developing and transition countries. By 2020 developing countries are expected to lead the production of high-volume chemicals and could account for one-third of global chemical consumption. Almost all developing countries are increasing their use of pesticides and industrial chemicals, including hazardous substances contained in consumer and commercial products, but the majority does not have adequate infrastructure or resources to ensure sound chemical management. Currently, much of the cost of chemical production, use and waste management is externalized as costs to governments and society. These include management of obsolete stockpiles and contaminated sites; children whose development has been impaired as a result of pre-natal and post-natal chemical exposure; injured workers from chemical exposure; fishers; hunters; small farmers whose livelihoods are impaired by chemical contamination; and indigenous peoples whose way of life has been undermined through contamination of their traditional foods. The externalities of modern industrial agriculture include depletion of water, soil, and biodiversity and pollution by pesticides and fertilisers. The 2012 report by the UN Secretary-General's High-level Panel on Global Sustainability acknowledge these externalities result in market failure and retard economic productivity. They also harm the environment, and impose additional burdens on a country's health delivery and education systems.

Principle 16 of Agenda 21 calls for countries to promote the internalization of environmental costs and the use of economic instruments to ensure the polluter takes responsibility. Now more than ever, a polluter pays approach is essential, as countries can no longer afford to pay these bourgeoning externalised costs, either in terms of adverse environmental health impacts and/or the economic imposts on the public purse. To achieve a sustainable chemical industry, the full life cycle costs of a product or activity need to be assessed, and economic instruments that internalize those costs implemented.

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2. OECD, *OECD Environmental Outlook to 2030,* 2008.
3. OECD, *OECD Environmental Outlook for the Chemical Industry,* 2001.
4. Governing Council of the United Nations Environment Programme, *Financing Options for Chemicals and Wastes* (UNEP/GCSS.XI/INF8), December 18, 2009, http://www.unep.org/dec/pdf/chemicalfinancing/k0953863-%20gcss-xi-inf8.pdf
5. United Nations Secretary-General's High-level Panel on Global Sustainability (2012). *Resilient People, Resilient Planet: A future worth choosing.* New York: United Nations.
6. Digangi, J., Civil Society Actions For A Toxics-Free Future, *New Solutions*, Vol. 21(3) 433-445, 2011

95. We call for strengthening the Strategic Approach to International Chemicals Management (SAICM), to step up efforts towards a more robust, coherent, effective and efficient international regime for chemicals throughout their lifecycle. Sustainable and adequate long-term funding will be important to assist developing **and transition** countries with sound chemical and waste management through an integrated approach. **We call on UNEP to establish a multi-sectoral and multi-stakeholder process to assess SAICM progress and establish a plan for further intergovernmental actions to ensure that chemicals are used and produced in ways that minimise adverse effects on human health and the environment in all countries.**

Rationale:
The texts and resolutions that established the Strategic Approach to International Chemicals Management (SAICM) were introduced in 2006 in order to realise the World Summit on Sustainable Development 2020 goal; *"to achieve the sound management of chemicals throughout their life-cycle so that, by 2020, chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment."* While

considerable effort has been undertaken by a number of governments and stakeholders to achieve this goal, for example, the Global NGO SAICM Outreach Campaign, many developing and transition countries are not on track to reach it by 2020. The next Earth Summit meeting will not occur until 2022, hence it is essential that Rio+20 ensure the convening of an intergovernmental process to both assess the progress of SAICM implementation and to establish further actions post 2020 to ensure all countries can achieve this important sustainable development goal.

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1. Strategic Approach to International Chemicals Management (SAICM), SAICM texts and resolutions of the International Conference on Chemicals Management, 2006, Overarching Policy Strategy, paragraph 13 http://www.saicm.org/documents/saicm%20texts/SAICM_publication_ENG.pdf
2. Global SAICM Outreach Campaign. http://www.ipen.org/campaign

96. We commend the increased coordination and cooperation among the Basel Convention, the Rotterdam Convention and the Stockholm Convention on Persistent Organic Pollutants, and call for public-private partnerships aiming to enhance capacity and technology for environmentally sound waste management. We also note with concern the **(Remove emerging)** challenges of electronic waste and plastics in the marine environment, which should be **urgently** addressed inter alia through appropriate programmes and environmentally sound technologies for material and energy recovery. **We encourage all Governments to ratify the Basel Ban Amendment to ensure developing and transition countries are not the final destination for the developed world's wastes, in particular, electronic waste. We support tighter controls and encourage greater efforts to stop the traffic in banned and illegal chemicals, including banned pesticides and POPs.**

Rationale:
Ratification of the Basel Ban amendment is essential to stop the export of hazardous wastes including electronic waste (ewaste) and banned products from developed to developing countries. The export of old computers to 'bridge the digital divide' is still being used as an excuse for toxic waste dumping on some of the poorest communities and countries in the world. The lack of adequate infrastructure in developing countries to manage ewaste results in the burning of ewaste in open air or dumping in sewers, rivers or on the ground, with global impacts. The phenomenal growth in ewaste requires that all countries develop sound capacity to prevent, minimise, re-use or recycle materials from ewaste. Active support must be given to green product design to design-out toxic components in electronics, as well as green procurement policies. The issues of electronic wastes and plastics in the marine environment can no longer be considered as emerging challenges. Both are firmly on the environmental agenda with their impacts being felt globally through increased pollution of air, wildlife and the marine environment. To achieve sustainability, societies and governments must succeed in implementing Zero Waste policies, which requires improvement of product design and content to better ensure the ease and safety of recycling. Plastic pollution of the marine environment is a direct result of low recycling rates for plastic. Either via direct dumping, river transport or unsecured landfill, waste plastics find their way to the ocean vortices. As plastics do not biodegrade easily in the environment, the amount of plastic in the marine environment is increasing substantially. The plastic accumulates and concentrates pollutants including nonylphenols, DDE and PCB, providing a global transport medium and a source of toxic chemicals in the marine environment. Mortality due to plastic ingestion is now common in seabirds, marine mammals and sea turtles.

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http://www.saicm.org/documents/saicm%20texts/SAICM_publication_ENG.pdf

96 bis. We recognise the importance of chemical safety and the important role of the industry in providing toxicological data and information to prevent possible harm to human health and the environment before chemicals are placed on the market. International sourcing of products with undefined material and chemical compositions are posing threats to consumers globally. We note the urgency of implementing cradle to cradle and green design approaches to equally protect children, women, consumers, workers, and community health. We call on UNEP to establish a multisectoral and multistakeholder process to define a global standard for the provision of information on the chemical composition of products and materials.

Rationale:
Agenda 21 contains specific reference to the right of communities to chemical information and the obligations on industry and governments to generate and provide that information. It is acknowledged that it is in the public interest for the community to be informed, to exercise their right to understand, to make informed choices and to participate in informed decision-making. Informed consumers not only improve chemical safety but help drive cleaner production and reduce the generation of hazardous waste. SAICM supports right-to-know and aims to ensure information about chemicals throughout their life cycle, including chemicals in products, is available to all stakeholders. Despite this, right-to-know and access to chemical information is still not a reality for many. Thousands of chemicals remain in the market with inadequate data on human health and little if any, ecotoxicity data. Information on product ingredients and chemical use and storage is often withheld under commercial confidentiality regimes and while some countries have implemented right-to-know initiatives like the Pollution Release Transfer Registers, their effectiveness is restricted by the limited number of chemicals included and their dependence on industry estimations. Both the lack of data and the inappropriate withholding of chemical information under commercial protection must be addressed.

The cradle to cradle approach models manufacturing of products on nature's processes that operate in a circle and do not generate wastes. The approach includes an assessment of materials and how they are used; minimising the energy required by using renewable sources; reducing water use and zero discharge; and ensuring just and equitable livelihoods. A life cycle approach to green design allows for substitution and elimination of hazardous substances and better protection of the health of children, women, consumers, workers, and the community.

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1. Rio Declaration on Environment and Development (1992) ILM31 p. 876.
2. Agenda 21: Programme for Action for Sustainable Development Rio Declaration on Environmental Development, United Nations Conference on Environment and Development (UNCED) 3-14 June 1992, Rio de Janeiro, Brazil.
3. Geiser, K., Redesigning Chemicals Policy: A Very Different Approach, *New Solutions*, Vol. 21(3) 329-344, 2011

96 ter. We acknowledge that many chemicals on the market are unmanageable and a global phase-out of particularly hazardous chemicals, including hazardous nanomaterials, is needed. These should include highly hazardous pesticides, persistent bioaccumulative toxins (PBTs), very persistent and very bioaccumulative substances (vPvBs), genotoxins, carcinogens, chemicals affecting reproduction, the immune and nervous systems, substances that undergo long-range transport, endocrine disruptors, and toxic metals such as cadmium, lead, and mercury. A global phase out is essential in order to avoid banned and restricted chemicals from one country being sold or dumped in another. Furthermore, concrete and measureable deadlines are crucial to achieving this and ensuring credibility and public trust. All efforts should be made, using life cycle considerations and alternatives assessments, to ensure that alternatives to these chemicals be safer and more sustainable. We also note the value of low and non- chemical alternatives in agriculture such as integrated pest management (IPM) and agroecological practices.

Rationale:
In 2006, Ministers from more than 100 countries acknowledged that the international community should prioritise those chemicals that pose unreasonable and unmanageable risks. SAICM specifically mentions persistent, bioaccumulative and toxic substances (PBTs); very persistent and very bioaccumulative substances; chemicals that are carcinogens or mutagens or that adversely affect the reproductive, endocrine, immune, or nervous systems; persistent organic pollutants (POPs), mercury and other chemicals of global concern; chemicals produced or used in high volumes; those subject to wide dispersive uses; and other chemicals of concern at the national level. The consumption of products containing hazardous chemicals is increasing, in many countries, resulting in a growth in emissions from the manufacture and use of products, as well as a massive growth in the waste generated. Many low quality products are still supplied to and also made in developing and transition countries, including cosmetics, household goods, paints and toys that are contaminated with a range of heavy metals and chemicals.

The Food and Agriculture Organisation (FAO) has called for the global phase-out of highly hazardous pesticides including those that are highly acutely toxic (WHO Classes 1a and 1b), carcinogenic, mutagenic, reproductive toxins, those listed under the Stockholm or Rotterdam Conventions, or pesticides with active ingredients and formulations that have shown a high incidence of severe or irreversible adverse effects on human health or the environment. FAO has also called for the use of these pesticides to be replaced by an ecosystem approach to agriculture based on biological processes and the use of pesticides only as a last resort.

In most cases, no information on contents of hazardous chemicals in products is available and there remains inadequate public awareness of health risks associated with many products, including hazardous pesticides. While right-to-know about product ingredients may help drive cleaner production, the onus remains with manufacturers and governments to ensure hazardous and persistent substances are eliminated from consumer products and substituted with the safest possible ingredients.

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3. Highly Hazardous Pesticides (HHP) http://www.fao.org/agriculture/crops/core-themes/theme/pests/pm/code/hhp/en/
4. FAO. 2010. *Report of the twenty-second session of the Committee on Agriculture, Rome, 29 November – 3 December 2010.* Rome. Also see FAO, 2011. Save and grow: A policymaker's guide to the sustainable intensification of smallholder crop *production*. http://www.fao.org/ag/save-and-grow

96 quat. We acknowledge the concurrent exposure on human health and ecosystems of persistent organic pollutants (POPs) and changing climates. We urge all countries and intergovernmental organisations to develop a coordinated and global response to counteract immediate, medium and long-term combined negative impacts of climate change and POPs, including support for mitigation activities with co-benefits.

Rationale:
In the 2011 report by UNEP and the Arctic Monitoring and Assessment Programme (AMAP) Expert Group, it is acknowledged that chemical management needs to be undertaken in the context of the growing interaction of climate change on chemical releases, transport, degradation, exposure and toxicity. Higher temperatures were shown to increase primary emissions and releases of POPs, to change rates of mobilisation from materials, products or stockpiles and alter use patterns, e.g., increased demand for disease vector control and DDT. It was shown that increased exposure to POPs also results from secondary re-volatilisation and re-mobilisation from melting of ice, glaciers and permafrost, flooding of contaminated lands, waste sites and landfills, as well as increase partitioning of POPs from water to atmosphere. There is already evidence of increased remobilization of POPs and heavy metals from glacial and permafrost melt. Temperature rises were also shown to increase POPs toxicity while other climate change impacts

affect bioaccumulation. UNEP has called for a coordinated and global response to address the combined effects of POPs exposure and changing climates.

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1. *Climate change and POPs: Predicting the Impacts,* Report of the United Nations Environment Program (UNEP)/Arctic Monitoring and Assessment Programme (AMAP) Expert Group, January 2011 http://chm.pops.int
2. Noyes PD, McElwee MK, Miller HD, Clark BW, Van Tiem LA, Walcott KC, Erwin KN, Levin ED. The toxicology of climate change: Environmental contaminants in a warming world. *Environ Int.* 2009 Aug;35(6):971-86.

Science and Technology Section

118 bis. We recognize the urgency of strengthening international, regional and national capacities in technology assessment as provided in Chapter 34 of Agenda 21 especially in view of the rapid development and deployment of new high-risk technologies (nanotechnology, synthetic biology, geoengineering) that may have negative impacts on sustainable development.

Rationale:
All countries face the challenge of assessing the impact of emerging new technologies. Conventional chemical regulatory systems cannot adequately address these. In recent years, a wide variety of nanomaterials (substances smaller than 100 nanometers in size) have been added to an increasing numbers of consumer products used day-to-day, e.g., food packaging, sunscreens, clothing, pharmaceuticals, cosmetics, agrochemicals, household appliances, and medical devices, without adequate and appropriate toxicity assessment, labeling, government regulation or environmental monitoring. Studies have shown that manufactured nanoparticles in widespread commercial use pose new toxicity risks including asbestos-like pathogenicity, lesions, cancer and potential long-term environmental impacts. There is evidence that some nanoparticles can cross the placenta, and have potential for biomagnification and bioaccumulation in the environment. The United Kingdom's Royal Society recommended in 2004 that given the emerging evidence of serious nanotoxicity risks, nanoparticles should be subject to new safety assessments prior to their inclusion in consumer products, and the release of nanoparticles into the environment should be avoided. The current OECD nanomaterials program focuses on only a fraction of the nanomaterials already in circulation or nearing commercialization, and is not expected to provide results and guidance for some years. It is likely that nanotechnology will do little to redress the systemic causes of poverty, hunger or pollution, and developing countries may even disproportionately bear nano-risks, by hosting manufacturing that wealthy countries reject, or becoming dumping grounds for waste.

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2. Helland A et al., (2008) Risk Assessment of Engineered Nanomaterials: A Survey of Industrial Approaches. *Environ. Sci. Technol*. 42 : 640–646 ; Helland A. et al., (2008) Precaution in Practice: Perceptions, Procedures, and Performance in the Nanotech Industry. *J Ind Ecol* 12(3):449-458.
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4. SCENIHR (Scientific Committee on Emerging and Newly Identified Health Risks). 2009. Risk assessment of products of nanotechnologies, 19 January 2009.
5. Recommendations of the Royal Society and The Royal Academy of Engineering, UK (2004). Nanoscience and nanotechnologies. http://www.royalsoc.ac.uk/

119. We recognize that strengthening the scientific, technological and innovation capacities of countries **can contribute to** sustainable development. **It is equally important however to ensure that the development and transfer of technology does not pose threats to the environment, health, livelihoods and cultures of local communities. We need effective**

technology assessment mechanisms and enhanced means of transferring appropriate technologies to developing countries.

120. We agree to strengthen international cooperation conducive to investment and technology transfer, development, **assessment** and diffusion **that do not threaten the environment, or the health or sustainable livelihoods of people.**

Rationale:
New technologies have found their way into use prior to adequate health and environment assessment, e.g., nanotechnology and unconventional gas extraction using hydraulic fracturing. Others, such as geoengineering are proposed for use without adequate assessment. It is essential that all new technologies be fully assessed using a life cycle approach to ensure they do not pose threats to the environment, human health, green livelihoods and the cultures of local communities. The World Economic Forum has recently highlighted the need to evaluate as a whole, natural resources proposals, noting that some proposed green alternatives consume more natural resources than their conventional counterparts. As an example, they emphasize the unwitting trade-offs between making the shift to lower greenhouse gas (GHG) emitting fossil fuels, such as natural gas, and the vast quantities of water used during the extraction or "fracking" of unconventional gas reserves, as well as the other environmental risks such as methane leakage and air pollution. Emerging technology assessments can provide an effective 'early warning' of the potential social, economic and legal impacts, as well as the environmental and human risks of particular products or technologies. Emerging technologies must undergo transparent, inclusive and comprehensive environmental health assessment, including their impacts on human health, the environment and green livelihoods, prior to their introduction and transfer to developing countries.

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120 bis. We agree to adopt a ban on the real-world testing of geoengineering technologies (the large-scale intentional manipulation of the Earth's systems to modify the climate) as long as there is no international consensus regarding their development or deployment.

Rationale:
In contrast to the small scale attempts to change weather patterns and increase rainfall, Climate Engineering (CE) / geoengineering, refers to the deliberate, large-scale manipulation of an environmental process that affects the earth's climate, in an attempt to counteract the effects of global warming. The two main types are solar radiation management (SRM), which involves attempts to reflect a small amount of solar radiation back into space, and carbon dioxide removal (CDR), which involves attempts to remove carbon dioxide from the atmosphere and store it in oceans, plants, soils or geological formations. There are considerable doubts among scientists about how effective SRM and CDR could be in achieving the objectives of reducing atmospheric warming and lowering CO2 concentration. However, even if the primary objectives could be met, there may be other negative consequences, such as impacts on marine biodiversity from large scale ocean fertilization, diversion away from efforts to reduce greenhouse emissions and international conflict over deployment, profits and impacts. In 2010, the Convention on Biological Diversity adopted a de facto moratorium on all CE activities. However, this decision is qualified and open to interpretation. Due to the irreversible risks involved in these technologies, large-scale intentional manipulation of the Earth's systems to modify the climate should be banned until there is international consensus regarding their safe development or deployment.

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http://royalsociety.org/uploadedFiles/Royal_Society_Content/policy/publications/2009/8693.pdf