



## **Thought starter: International cooperation on chemical safety beyond 2020**

IPEN

September 2015

### **Executive summary**

SAICM is the only global forum where the full range of issues relating to sound chemicals management can be identified and addressed globally, regionally, and nationally. Since its adoption in 2006, SAICM has grown and matured. It has proved to be an extremely important international framework for promoting and advancing chemical safety objectives. While SAICM is important to all countries, it is of special value to developing and transition countries. This is because many toxic chemical sources in these countries are not comprehensively addressed by any of the existing chemicals and wastes conventions and many of them find it difficult to properly address these sources on their own. And this problem is exacerbated by the rapid increase in chemicals production and use. These threats to human health and the environment will not end in 2020.

The 2006 decision that established SAICM expires in 2020. This poses an urgent question: what comes next? The 5<sup>th</sup> International Conference on Chemicals Management (ICCM5) will be held in 2020 and no preparatory meetings to consider SAICM's future are currently scheduled. If the global community waits until 2020 to begin its considerations on the future of intergovernmental cooperation on chemical safety, SAICM will expire; there will be a gap; and critical momentum will be lost. The only way to avoid this gap and lost momentum would be for ICCM4 to initiate an intersessional process to begin considering the future of SAICM and/or other mechanisms for post-2020 intergovernmental, multi-stakeholder cooperation on chemical safety. Such an intersessional process could develop proposals for post-2020 institutional arrangements for ICCM5 to consider and possibly adopt.

One way forward might be for ICCM4 to call for two intersessional planning meetings back to back with UNEA2 (2016) and UNEA3 (2018). These could then feed into the agenda of an OEWG3 in 2019 to prepare the agenda for ICCM5. A high-level segment at ICCM5 could then consider proposals, and could adopt and initiate agreed post-2020 institutional arrangements for sound chemicals management.

SAICM has so far devoted itself primarily to enabling activities for the sound management of chemicals.<sup>1</sup> Beyond 2020 the main focus should become the utilization of these new capabilities and frameworks to take actions at country, local, and community levels to minimize and eliminate actual sources of toxic exposure. Adequate financing and raising the political priority given to chemicals management will play key roles in improving how chemicals are produced and used in order to prevent harms to human health and the environment.

## **Introduction**

The Strategic Approach to International Chemicals Management (SAICM) recognizes the health and environmental harms caused by chemical exposure and represents a global political commitment to reform how chemicals are produced and used in order to minimize those harms.<sup>2</sup> The agreement is not legally binding but Heads of State at the 2002 World Summit on Sustainable Development in Johannesburg called for its development and a consensus of Environment Ministers, Health Ministers and other delegates from more than one hundred governments adopted SAICM at the first International Conference on Chemicals Management (ICCM1), held in Dubai, February 2006.

SAICM is unique in its broad scope and multi-stakeholder / multi-sectoral approach. However, the 2006 decision that established the SAICM framework expires in 2020. This paper will cover why SAICM is important, elements that need to be addressed beyond 2020, and a possible process for reaching the agreements necessary to continue international cooperation on chemical safety beyond 2020.

## **Why SAICM is important**

SAICM is the only global forum where the full range of existing and newly revealed problems associated with sound chemicals management can be identified and addressed globally and nationally. SAICM stimulates and enables international, multi-stakeholder, multi-sectoral efforts to address chemical safety and sources of toxic exposure throughout the entire lifecycle. It provides information, support and encouragement to government officials who have national responsibilities for chemicals management. SAICM's broad scope covers many chemical exposures that lie outside the framework of current chemicals conventions. SAICM is especially important to developing and transition countries since many still have very weak legal, regulatory, institutional and technical infrastructures for protecting their countries' residents and environment from toxic chemicals and wastes. SAICM and other global agreements have become important drivers for action on chemical safety and its links to sustainable development in developing and transition countries. In the absence of SAICM, no participatory international framework would exist for addressing the majority of the world's most pressing, chemical safety concerns.

### ***Importance to developing and transition countries***

Since its adoption, SAICM has grown and matured. It has proved to be an extremely important international framework for promoting and advancing chemical safety objectives. While SAICM is important to all countries, it is of special value to the many low- and middle-income countries that still have very weak legal, regulatory, institutional and technical infrastructures for protecting their countries' residents and environment from the harms associated with exposure to toxic chemicals and wastes. With the current, rapid expansion of chemical use and chemical production in the developing world, there is a growing need for a stronger, more capable SAICM that receives proper political priority and adequate resources.

The Stockholm Convention on Persistent Organic Pollutants—which was adopted prior to SAICM—and the Minamata Convention on Mercury—which was adopted after SAICM—both address specific toxic pollutants that can travel long distances on air or water currents, and accumulate in the environment and living organisms that, therefore, can cause harm to human health at places far distant from their original source location. This long-range transport property and the propensity for these chemicals to bioaccumulate are reasons some governments give to justify the establishment of global, legally-binding, chemicals-control treaties. These properties give governments of high income countries a self-interested reason to provide political, technical and financial support to these Conventions.

SAICM, on the other hand, has a much wider scope: it addresses virtually all the sources of toxic chemical exposure that are not covered by the Stockholm or Minamata treaties. In many cases, the harms to human health and/or the environment caused by these other sources are as great as harms caused by persistent organic pollutants and mercury. These other sources of toxic chemical exposure frequently disproportionately impact people and environments in low- and middle-income countries. And, in many cases, governments of these countries do not yet have information about them or policies and programs in place to adequately address them.

Consider just two examples of the many toxic chemical sources that are not comprehensively addressed by any of the existing chemicals and wastes conventions<sup>3</sup>: lead poisoning and pesticide exposure (please see Annex 1).

According to WHO, lead poisoning is an “*entirely preventable disease*”.<sup>4</sup> However, of all children with elevated blood-lead levels, an estimated 90% live in low-income regions.<sup>5</sup> No other international cooperative agreement established any mechanism to address this issue until ICCM2 made it an emerging policy issue and stimulated the creation of the Global Alliance to Eliminate Lead Paint.

As with lead, harms associated with pesticide exposure disproportionately impact low- and middle-income countries. A much greater proportion of the populations of these countries engage in agriculture and/or live in rural areas where pesticides are intensively used. National pesticide control regulations in low- and middle-income countries are generally weak, spotty, and inadequately monitored and enforced. The ordinary conditions of pesticide use in these countries are often a source of significant harm to farmer and ecosystem health. This issue is not addressed in a comprehensive way in any international cooperative agreement. However, there will be an opportunity to initiate a global effort to phase-out highly hazardous pesticides at ICCM4.

### ***SAICM stimulates and enables international, multi-stakeholder, multi-sectoral efforts to address sources of toxic exposure***

The Global Alliance to Eliminate Lead Paint was established in response to a decision taken in 2009 at the second meeting of SAICM’s International Conference on Chemicals Management (ICCM). A decision on possible international action to address highly hazardous pesticides will be considered at ICCM4. Other ICCM decisions have stimulated international activities aimed at addressing other toxic exposure sources, including: access to information about chemicals in products; toxic exposures related to the full lifecycle of electrical and electronic products; endocrine disrupting chemicals (EDCs); nanotechnology and nanomaterials; and others.

### ***SAICM provides information, support and encouragement to government officials who have national responsibilities for chemicals management***

SAICM provides a framework for regional meetings that enable peer-to-peer discussions on issues related to sound chemicals management. SAICM helps national chemicals managers better understand the approaches that other countries use to control the many different chemical hazards they need to address. SAICM expands access to chemicals-related information, expertise, and policy guidance. SAICM helps elevate the standing of national chemicals management officials within their own ministries or agencies; and it helps stimulate inter-ministerial coordination and cooperation in support of chemical safety objectives.

### ***SAICM stimulates and enables multi-stakeholder collaboration at the international and the country level***

SAICM provides a framework that stimulates and enables government officials, public interest NGOs, community groups, UN agencies, the private sector, the health sector, trade unions, and other relevant

actors to interact and collaborate with one another in support of sound chemicals management objectives. In the absence of the SAICM framework, such collaboration would often be difficult and would sometimes not even be feasible. In the context of SAICM, public interest NGOs and other stakeholders can align their own chemical safety initiatives with internationally approved policies and frameworks that their governments acknowledge and support.

## **Comprehensive chemical safety efforts must continue beyond 2020**

Chemical production and use is rapidly expanding in low- and middle-income countries. As a result, severe adverse effects may be increasing due to the lack of awareness and technical capacity to properly address chemical exposures.<sup>6</sup>The Draft SAICM “*Overall orientation and guidance for achieving the 2020 goal of sound management of chemicals*” notes that, “*Projections show an increase in chemical production and use worldwide, continuing beyond 2020, with the largest increases occurring in countries with economies in transition and developing countries. The need for strong capacity for governance, knowledge and information-sharing, and risk reduction so as to promote the sound management of chemicals will not end in 2020. The continued relevance of the sound management of chemicals and waste beyond 2020 is recognized.*”<sup>7</sup>

Most of the objectives identified in the SAICM Global Plan of Action are still far from being achieved and the majority of emerging policy issues identified by countries are just beginning to be understood and addressed. As noted by the African Region in 2013, “*...the challenges of sound chemicals management will continue beyond 2020 as new chemicals are added to the market and as new emerging policy issues are identified.*”<sup>8</sup>

In 2014, Decision 1/5 of the United Nations Environment Assembly (UNEA) agreed on “*the continued relevance of the sound management of chemicals and waste beyond 2020*” and emphasized “*the need for the continued strengthening of the Strategic Approach.*”<sup>9</sup> A country –led consultative process on the challenges to and options for further enhancing cooperation and coordination within the chemicals and wastes cluster in the long term noted, “*that progress in the sound management of chemicals and waste has not been sufficient globally and that continued focus on the sound management of chemicals and waste in the long term is required.*”<sup>10</sup>The report goes on to say, “*Strengthened sound management of chemicals and wastes in the long term is an essential cross-cutting issue for sustainable development because there are benefits for the environment, health, poverty eradication, the economy and societies in general. The need to prevent or minimize the significant adverse effects from chemicals and hazardous wastes on human health and the environment will continue to provide a strong basis for sound chemicals and waste management beyond 2020 and could be accompanied by supplementary targets and indicators, within a defined time frame.*” The 2<sup>nd</sup> meeting of the SAICM Open-Ended Working Group met in 2014 and agreed that strengthening of chemicals and waste management beyond 2020 should be on the agenda for ICCM4.

Taken together, there is broad recognition that intergovernmental and multi-stakeholder cooperation on chemical safety should not end in 2020. There will be a need for a robust and dynamic SAICM continuing far beyond 2020—but implemented in a way that increases its effectiveness to address the broad chemical safety concerns of its scope.

## **Chemical safety will remain part of the sustainable development agenda beyond 2020**

The Post-2015 Sustainable Development Goals<sup>11</sup> make it clear that international efforts to establish proper controls on chemicals and wastes should continue beyond 2020.

Under Goal 3: *Ensure healthy lives and promote well-being for all at all ages*, paragraph 3.9 states:

*[B]y 2030 substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination.*

Under Goal 6: *Ensure availability and sustainable management of water and sanitation for all*, paragraph 6.3 states:

*[B]y 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.*

Under Goal 12: *Ensure sustainable consumption and production patterns*, paragraphs 12.4 and 12.5 state:

*[B]y 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.*

*[B]y 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse*

Under goal 14: *Conserve and sustainably use the oceans, seas and marine resources for sustainable development*, paragraph 14.1 states:

*[B]y 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution*

The 2030 date in the above goals makes it clear that the international community does not expect sound management of chemicals and wastes to be fully achieved by 2020. Rather, good progress toward achieving the Post-2015 Sustainable Development Goals will require that international institutional arrangements for the sound management of chemicals and wastes continue beyond 2020.

## **Elements of a beyond 2020 process roadmap**

The 2006 decision that established SAICM expires in 2020. This poses an urgent question: what comes next? ICCM5 will be held in 2020 and neither an OEWG nor any other intersessional preparatory meetings have yet been scheduled. If the global community waits until 2020 to begin consideration of post-2020 institutional arrangements for intergovernmental cooperation on chemical safety, SAICM will expire; there will be a gap; and the critical momentum built by SAICM will be lost. To prevent a gap and lost momentum, an intersessional preparatory process should be agreed upon at ICCM4 with a mandate to develop proposals for post-2020 arrangements for consideration and possible adoption at ICCM5. As the SAICM Secretariat notes in “*Sound management of chemicals and waste beyond 2020*”, “*The Conference may wish to establish an intersessional process between its fourth and fifth sessions with a view to the further development of a proposal on addressing the sound management of chemicals and waste beyond 2020, with full and inclusive multi-stakeholder and multisectoral involvement.*”<sup>12</sup>

### Possible timetable for actions

Time	Event	Comment
October 2015	ICCM4	Decision to undertake a preparatory process to develop proposals for comprehensive international cooperation on chemical safety beyond 2020
May 2016	UNEA2	Open-ended Preparatory Committee (PrepCom1) meeting dedicated to formulating Beyond 2020 plan held back to back with UNEA
May 2018	UNEA3	PrepCom2 meeting dedicated to formulating Beyond 2020 plan held back to back with UNEA
December 2019	OEWG3	OEWG3 meeting addresses all relevant issues for the agenda of ICCM5 including the Beyond 2020 plan
October 2020	ICCM5	High-level segment considers the proposed Beyond 2020 plan and agrees on post-2020 institutional arrangements for sound chemicals management

## What needs to be addressed beyond 2020?

SAICM has so far devoted itself mainly to enabling activities for the sound management of chemicals. Beyond 2020 the focus should become the further development of an enabling environment and importantly, the utilization of these new capabilities and frameworks to take actions that minimize and eliminate actual sources of toxic exposure throughout the entire lifecycle. A beginning list of elements to be addressed includes the following:

### ***A review of SAICM progress***

To move forward, there should be an honest review and evaluation of the SAICM process since 2006 along with priorities for action to 2020. This will be taken up at the fourth International Conference on Chemicals Management as delegates consider the “*Overall orientation and guidance for achieving the 2020 goal of sound management of chemicals*” (OOG). The OOG attempts to summarize progress in implementing the Overarching Policy Strategy and identifies six core activity areas for implementing SAICM objectives.

### ***Chemical safety needs a higher political priority***

The political priority of SAICM and commitment to the sound management of chemicals and wastes must be significantly increased in all countries.<sup>13</sup> As chemical use and production continues to expand, SAICM should be upgraded in importance to match the growing challenge of health and environmental injuries associated with exposures to toxic chemicals and wastes. Because of its broad scope and relevance to chemical safety concerns not covered by other agreements, SAICM remains the only global forum where the problems of sound chemicals management can be comprehensively identified and addressed.

### ***Realistic financing is needed for true implementation***

The SAICM Overarching Policy Strategy that was adopted in 2006 acknowledged that access to considerable financial and other resources will be needed to achieve the sound management of chemicals.<sup>14</sup> However, these funds never materialized on a scale commensurate with the need.

- Donor government delegates at SAICM preparatory meetings raised expectations that international development assistance agencies would provide substantial funding for SAICM implementation. This has not yet occurred on a significant scale and needs to be further pursued.

- Though a modest and limited SAICM Quick-Start funding program was established, the program was time-limited and focused on enabling activities. No substantial and sustainable program for mobilizing the necessary implementation resources followed.
- Some funds for SAICM implementation were included in the portfolio of the Global Environment Facility during its fifth and sixth replenishments. This is welcome. However, the amount allocated was very small compared to the need.
- UNEP developed an integrated approach to financing sound management of chemicals and wastes that includes some elements that could be developed further. However, this has not yet provided any influx of financial support for SAICM implementation.
- A Special Programme to support institutional strengthening at the national level has been established. This too is welcome, but it specifically diverges from SAICM's multi-stakeholder approach by excluding financing for public interest civil society organizations.

Substantial new and additional funds for the implementation of SAICM will be needed for a sincere global effort to achieve SAICM's goals. Substantial new and additional funds will be required for full and robust implementation of SAICM in the world's developing and transition countries. And the measures to be implemented must be sustained on a continuing basis. Therefore, revenue flows to support national chemicals management programs and infrastructures must also be long term and sustainable. A realistic approach to mobilizing resources on the scale needed for robust SAICM implementation must be developed.

### ***SAICM institutional arrangements need strengthening***

The SAICM institutional arrangements should be reviewed and evaluated. In particular, consideration should be given to creating a substantially strengthened SAICM Secretariat with an allocation of staff resources sufficient to fully implement its mandate. Paragraph 29 of the Overarching Policy Strategy explicitly calls for a joint secretariat with lead roles taken by UNEP and WHO. However, WHO withdrew its secretariat position citing financial reasons. In 2013 and 2014 at SAICM regional meetings in Africa and Asia Pacific, consensus resolutions called on both UNEP and WHO to “*provide human and other resources to fully staff the SAICM secretariat consistent with the responsibilities outlined in paragraph 29 of the Overarching Policy Strategy.*”<sup>1516</sup> In 2014, UNEA Decision 1/5 invites WHO, “*to provide appropriate staff and other resources*” to the SAICM secretariat. Clearly, governments and other stakeholders have affirmed the importance of a fully functioning and staffed secretariat to address both the environmental and the health aspects of chemical safety. This needs to be implemented going forward.

### ***Effectiveness evaluation should monitor progress***

SAICM has indicators for reporting so that progress on implementation can be monitored. However, the indicators generally do little more than count the number of countries that report they have certain mechanisms and/or are implementing certain chemicals management arrangements. All indicators begin with “*The number of...*” While this provides quantifiable information, it often fails to accurately reflect actual progress and gaps toward achieving chemical safety objectives.

Articles that outline effectiveness evaluation mechanisms are part of the Stockholm and Minamata Conventions and each has a subsidiary body responsible for measuring results against goals. SAICM is challenging due to its broad scope. However, mechanism for honestly evaluating SAICM's effectiveness should be developed.

## **Annex 1 Two examples of issues important to developing and transition countries that are not comprehensively addressed by any of the existing chemicals and wastes conventions**

Lead and pesticide exposure are just two of many possible examples of sources of toxic exposure that the SAICM process seeks to address. In the absence of SAICM, no participatory international framework would exist for addressing the majority of the world's most pressing, chemical safety concerns.

### **Lead Poisoning**

The World Health Organization (WHO) considers lead poisoning to be one of the top ten diseases whose health burden among children is due to modifiable environmental factors.<sup>17</sup> Lead poisoning accounts for 0.6% of the total global burden of disease.<sup>18</sup> Sixteen percent of all children, worldwide, are estimated to have lead in their blood at levels greater than 10 micrograms of lead per deciliter. Of all children with elevated blood-lead levels, an estimated 90% live in low-income regions.<sup>19</sup>

In addition to its enormous human costs, exposure to lead also puts a great economic burden on societies. A recent study that investigated the economic impact of childhood lead exposure on national economies in low- and middle-income countries estimated the total cumulative cost burden to be \$977 billion international dollars per year.<sup>20</sup> This amount is seven times greater than the combined total of all the development aid to low- and middle-income countries provided by major donor governments.<sup>21</sup> According to WHO, lead poisoning is an “*entirely preventable disease*”.<sup>22</sup>

### **Pesticide Exposure**

Global data and authoritative estimates of the harms to human health and the environment caused by pesticide exposure are much sparser than those associated with lead exposure. WHO scientists have indicated that the global burden of disease associated with chronic exposure to toxic pesticides is still unknown because it has not yet been possible to conduct estimates based on the different modes of action by which pesticides exert their toxic effects.<sup>23</sup> An older, but authoritative study estimated that there are possibly one million cases of serious unintentional pesticide poisonings each year, and an additional two million cases of people hospitalized for suicide attempts with pesticides. The author notes that this necessarily reflects only a fraction of the real problem and estimates that there could be as many as 25 million agricultural workers in the developing world suffering some from occupational pesticide poisoning each year, though most incidents are not recorded and most patients do not seek medical attention.<sup>24</sup>

One estimate of harm cited in a paper from the Food and Agriculture Organization of the United Nations (FAO) suggests that the cumulative health costs from pesticide impacts in Sub-Saharan Africa over the period 2005-2020 might be USD \$97 billion.<sup>25</sup> A conservative estimate of pesticide exposure impacts on small farmers in sub-Saharan Africa suggests that certain specific costs associated with pesticide poisoning—lost work days, outpatient medical treatment, and inpatient hospitalization—amounted in 2005 to USD \$4.4 billion. These estimates do not include other costs such as the human suffering or the costs associated with lost livelihoods.<sup>26</sup> Nor do data and authoritative estimates quantify the harms to ecosystems associated with pesticide exposures. Once all the harms associated with pesticide exposure become better studied and quantified, they are likely to be as great, or greater, than the harms associated with lead exposure.

As with lead, harms associated with pesticide exposure disproportionately impact low- and middle-income countries. A much greater proportion of the populations of these countries engage in agriculture and/or live in the rural areas where pesticides are intensively used. National pesticide control regulations in low-



and middle-income countries are generally weaker, less comprehensive, and less well-monitored and enforced and the normal conditions of pesticide use often pose greater threats to farmer and ecosystem health.

## **Annex 2 Operationalizing industry financial responsibilities in chemicals management**

The key to securing sustainable funding for chemical safety is the internalization of costs within relevant producer industries.<sup>27</sup> This is because the money needed to assure that chemicals are safely managed is, ultimately, the responsibility of chemical producing industries.

When chemicals are produced or used in a country, it is an obligation of the government to ensure that the public's health and the environment are not harmed as a result of chemical exposure or chemical accidents. The costs governments incur in fulfilling this obligation are economic externalities that arise as a result of economic decisions by industry to manufacture and to use chemicals. According to the Polluter Pays Principle,<sup>28</sup> and according to sound economic policy, such external costs should not be borne by the general taxpayer, by the general national treasury, or by any other third party. Rather, appropriate economic instruments should be developed that effectively internalize such costs within the relevant industries in ways that do not distort international trade and investment. As noted by UNEP, "*The vast majority of human health costs linked to chemicals production, consumption and disposal are not borne by chemicals producers, or shared down the value-chain. Uncompensated harms to human health and the environment are market failures that need correction.*"<sup>29</sup>

The magnitude of the costs externalized by the chemical industry is enormous. Conservative estimates of some of these externalized costs include:

- US\$90 billion for health-related pesticide costs in Sub-Saharan Africa from 2005 – 2020. As a means of comparison, the entire 2009 Overseas Development Assistance to the health sector in Africa was US\$4.8 billion – a fraction of the health-related costs due to pesticides alone.<sup>30</sup>
- €157 billion as a median annual health cost for diseases associated with endocrine disrupting chemicals in the European Union. The diseases include IQ loss and associated intellectual disability, autism, attention-deficit hyperactivity disorder, childhood obesity, adult obesity, adult diabetes, cryptorchidism, male infertility, and mortality associated with reduced testosterone. The authors noted that this estimate was conservative since it represented only those EDCs with the highest probability of causation and a broader analysis would have produced greater estimates of burden of disease and accompanying costs.<sup>31</sup>
- US\$236 billion annual costs for pollution associated with the production and use of volatile organic compounds. This is an underestimate since it excludes most natural resources as well as water pollution and land use change and waste in non-OECD countries.<sup>32</sup>
- US\$977 billion annual costs related to childhood lead exposure in low- and middle-income countries. This figure represents 1.20% of global GDP in 2011. The authors note that the largest burden of lead exposure is now borne by low- and middle-income countries.<sup>33</sup>

Governments require substantial chemicals management capabilities and infrastructure in order to effectively implement, promote, and enforce sound chemicals management laws, policies and regulations. Additionally, governments need enhanced capability so that they can effectively promote clean technology transfer, cleaner production, safe and sustainable agricultural practices, safer substitutes

(including non-chemical ones) to replace production and use of hazardous chemicals and materials, and other similar reforms. With these government capabilities appropriately in place, harm can be prevented and future toxic legacies can be avoided. In their absence, especially in many developing and transition countries, there is a high likelihood of continuing practices that poison children, workers and farmers, pollute communities, and disrupt ecosystems through chemical exposures and chemical accidents, further hindering development processes of those countries who need it the most.

Chemicals-producing industries acknowledge that they bear responsibility for costs associated with their normal operations: procedures for operational safety, product stewardship, development of safer alternatives and so on. Downstream-user industries assume (or should assume) similar costs. However, purely voluntary measures will not be sufficient to achieve SAICM's goals.

Many countries start out with significant legacy issues. They are burdened with obsolete stocks of chemicals and pesticides; contaminated soils, sediments and sites; and other costly legacies for which no responsible party with sufficient remedial capabilities or attachable assets has or can be identified. The protection of public health and the environment must encompass a plan under which these legacy issues are satisfactorily addressed.

The amount of new and additional funds that developing and EIT country governments will need if they are to successfully establish and operate effective chemical safety policies, consistent with achieving the SAICM goal, is on a scale substantially beyond what donor governments have so far been willing and able to provide. A new source of funding is therefore needed to enable governments of developing and transition countries to protect their public's health and their national environment from injuries associated with exposures to toxic chemicals and wastes.

The global chemical industry has an annual turn-over of approximately USD \$4.1 trillion per year (trillion = thousand billion).<sup>34</sup> If, for example, a global cost recovery scheme recovers USD \$4.1 billion annually,<sup>35</sup> the total burden on the chemical producing industry would come to 0.1% of the industry's annual turnover – one cent (USD \$.01) for each ten dollars (USD \$10.00) in sales.

This cost is so small relative to the total turnover of the chemical industry that it should not be reflected in the price of products to the end-user. The aggregate costs of daily fluxes in the price of petroleum and other raw materials are huge compared to the amount a producer might need to pay annually in this kind of a cost-recovery scheme.

On the other hand, USD \$4.1 billion per year is considerably more than what donor governments would likely in grant aid for chemicals management efforts. And it is also considerably more than governments of developing and transition countries can mobilize under present conditions.

A global approach to cost internalization has several advantages. Given the transnational nature of the chemicals industry and its markets, purely national approaches to cost-recovery could be difficult, even for large, highly industrialized countries. Most developing and transition countries would find the burden of establishing a unique national approach overwhelming. A purely national approach could also lead to economic retaliation and/or distortions in international trade and investment.

Besides contributing to efficiency and consistency, a global approach may provide other benefits. Some substantial costs to government for sound chemicals management are associated with chemicals that are not produced in the country and not directly imported. The chemical, rather, may be present in imported products and released to the environment when the product is used and/or after it has become a waste. Such chemicals may be of substantial volume, and measures to assure they do not harm health and the

environment may be costly. However, a purely national cost recovery system would likely be unable to recover these costs.

Finally, some Least Developed Countries (LDCs) may have great needs, but national cost-recovery could not be reasonably expected to generate sufficient revenues. For these and other reasons, a global approach would be preferred.

Revenue flows to support national chemicals management programs and infrastructures must be long term and sustainable. This can only be accomplished on the necessary scale by the internalization of costs within relevant producer industries.

## References

<sup>1</sup> See for example projects funded by the SAICM Quick Start Programme here:

[http://www.saicm.org/index.php?option=com\\_content&view=article&id=109&Itemid=504](http://www.saicm.org/index.php?option=com_content&view=article&id=109&Itemid=504)

<sup>2</sup> SAICM's overall objective, as adopted in 2006, is to: *[A]chieve 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.*

<sup>3</sup> Basel, Rotterdam, Stockholm, and Minamata Conventions

<sup>4</sup> World Health Organization, Childhood Lead Poisoning, 2010 page 8:

<http://www.who.int/ceh/publications/leadguidance.pdf>

<sup>5</sup> Ibid, page 32

<sup>6</sup> United Nations Environment Programme (2012) Global Chemicals Outlook

<http://unep.org/chemicalsandwaste/UNEPsWork/Mainstreaming/GlobalChemicalsOutlook/tabid/56356/Default.aspx>

<sup>7</sup> Strategic Approach to International Chemicals Management (2015) Overall orientation and guidance for achieving the 2020 goal of sound management of chemicals, SAICM/ICCM.4/13,

<sup>8</sup> Strategic Approach to International Chemicals Management (2013) Report of the fifth African regional meeting on the Strategic Approach to International Chemicals Management, Pretoria, South Africa, 22 November 2013, Strengthening SAICM as a Chemicals Management Mechanism,

[http://www.saicm.org/images/saicm\\_documents/meeting/afreg/Pretoria2013/Meetingdocuments/FINAL%20report%20afr%20reg%20mtg%2013%20February.pdf](http://www.saicm.org/images/saicm_documents/meeting/afreg/Pretoria2013/Meetingdocuments/FINAL%20report%20afr%20reg%20mtg%2013%20February.pdf)

<sup>9</sup> United Nations Environment Assembly (2014) 1/5 Chemicals and waste, Proceedings of the United Nations Environment Assembly of the United Nations Environment Programme at its first session, UNEP/EA.1/10

<sup>10</sup> United Nations Environment Assembly (2014) 1/5 Chemicals and waste, Proceedings of the United Nations Environment Assembly of the United Nations Environment Programme at its first session, UNEP/EA.1/10

<sup>11</sup> The Post-2015 SDG Goals are still under negotiation and will be adopted immediately prior to ICCM4. The provisions cited here are from the outcome document of the UN Summit for adoption of the post-2014 development agenda and can be found here: <https://sustainabledevelopment.un.org/post2015/transformingourworld>

<sup>12</sup> UNEP, Strategic Approach to International Chemicals Management (2015) Sound management of chemicals and waste beyond 2020, SAICM/ICCM.4/13

<sup>13</sup> UNEA decision 1/5 notes, *"There is a need to increase the political priority and commitment to the sound management of chemicals and wastes at the local, national, regional and global levels..."*

<sup>14</sup> UNEP, Strategic Approach to International Chemicals Management: SAICM texts and resolutions of the International Conference on Chemicals Management, 2006, p21:

[http://www.saicm.org/images/saicm\\_documents/saicm%20texts/SAICM\\_publication\\_ENG.pdf](http://www.saicm.org/images/saicm_documents/saicm%20texts/SAICM_publication_ENG.pdf)

<sup>15</sup> SAICM (2013) Report of the fifth African regional meeting on the Strategic Approach to International Chemicals Management, SAICM/RM/Afr.5/7, November 2013

<sup>16</sup> SAICM (2014) Report of the fourth Asia-Pacific regional meeting on the Strategic Approach to International Chemicals Management, SAICM/RM/AP.4/7, March 2014

<sup>17</sup> Prüss-Üstün A, and C. Corvalán C (2006) World Health Organization, Preventing Disease Through Healthy Environments: Towards an estimate of the environmental burden of disease, 2006, page 12:

[http://www.who.int/quantifying\\_ehimpacts/publications/preventingdisease.pdf](http://www.who.int/quantifying_ehimpacts/publications/preventingdisease.pdf)

- 
- <sup>18</sup> World Health Organization, Childhood Lead Poisoning, 2010 page 11:  
<http://www.who.int/ceh/publications/leadguidance.pdf>
- <sup>19</sup> Ibid, page 32
- <sup>20</sup> Attina TM, Trasande L (2013) Economic costs of childhood lead exposure in low- and middle-income countries, *Environ Health Perspect* 121: 1097-1102 <http://ehp.niehs.nih.gov/1206424/>
- <sup>21</sup> In 2013, governments participating in the Development Assistance Committee (DAC) of the Organization of Economic Development and Cooperation (OECD) provided a total of USD 134.8 billion in net official development assistance. See: OECD; Aid to developing countries rebounds in 2013 to reach an all-time high;  
<http://www.oecd.org/newsroom/aid-to-developing-countries-rebounds-in-2013-to-reach-an-all-time-high.htm>
- <sup>22</sup> World Health Organization, Childhood Lead Poisoning, 2010 page 8:  
<http://www.who.int/ceh/publications/leadguidance.pdf>
- <sup>23</sup> Prüss-Ustün A, Vickers C, Haeffliger P, Bertollini R (2011) Knowns and unknowns on burden of disease due to chemicals: a systematic review; *Environmental Health* 10:9 <http://www.ehjournal.net/content/10/1/9>
- <sup>24</sup> Jeyaratnam, J (1990) Acute pesticide poisoning: A major global health problem, *World Health Stat* Q43:139-44
- <sup>25</sup> Information note on highly hazardous pesticides prepared by the Food and Agriculture Organization of the United Nations, September 2014, a Meeting Document for the 2nd meeting of the SAICM Open-ended Working Group, Geneva, 15-17 December 2014;  
[http://www.saicm.org/index.php?option=com\\_content&view=article&id=509:meetingdocuments-2nd-meeting-of-the-open-endedworking-group-geneva-15-17-december-2014&catid=92:oweg](http://www.saicm.org/index.php?option=com_content&view=article&id=509:meetingdocuments-2nd-meeting-of-the-open-endedworking-group-geneva-15-17-december-2014&catid=92:oweg)
- <sup>26</sup> UNEP (2012) *Global Chemicals Outlook/ Towards Sound Management of Chemicals: Synthesis Report for Decision-Makers*; P 29
- <sup>27</sup> The starting point for the SAICM is the recognition that adverse effects (“damage”) associated with the production and use of chemicals presently exists and need to be addressed. Chemicals-producing industries—merely by producing chemicals—create the fundamental conditions that lead to such damage. Therefore, a practical approach would be to designate chemicals-producing industries as the “polluter,” based on the argument that this is the most economically and administratively efficient choice as outlined by the EU in a 2002 OECD report.
- <sup>28</sup> See Rio Declaration on Environment and Development, Principle 16, adopted by the 1992 United Nations Conference on Environment and Development,  
<http://www.unep.org/Documents/Default.asp?DocumentID=78&ArticleID=1163>
- <sup>29</sup> UNEP (2012) *Global Chemicals Outlook: Towards the sound management of chemicals*, p 118, ISBN 978-92-807-3320-4
- <sup>30</sup> UNEP (2012) *Global Chemicals Outlook: Towards the sound management of chemicals*, p 99, ISBN 978-92-807-3320-4
- <sup>31</sup> Trasande L, Zoeller RT, Hass U, Kortenkamp A, Grandjean P, Myers JP, DiGangi J, Bellanger M, Hauser R, Legler J, Skakkebaek NE, Heindel JJ (2015) *Estimating Burden and Disease Costs of Exposure to Endocrine-Disrupting Chemicals in the European Union*, *J Clin Endocrinol Metab* 100: 1245 – 1255 doi: 10.1210/jc.2014-4324
- <sup>32</sup> UNEP (2013) Costs of inaction on the sound management of chemicals; p 11, Job number DTI/1551/G
- <sup>33</sup> Attina TM, Trasande L (2013) *Economic costs of childhood lead exposure in low- and middle-income countries*, *Environ Health Perspect* 121: 1097-1102 doi: [10.1289/ehp.1206424](https://doi.org/10.1289/ehp.1206424)
- <sup>34</sup> United Nations Environment Programme (2012) *Global Chemicals Outlook*
- <sup>35</sup> See [http://www.oecdwash.org/DATA/DOCS/env\\_outlook\\_chem\\_industry.pdf](http://www.oecdwash.org/DATA/DOCS/env_outlook_chem_industry.pdf)