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Item 5 (a) of the provisional agenda*

**Implementation towards the achievement of the 2020 goal
of sound chemicals management: overall orientation and
guidance on the 2020 goal**

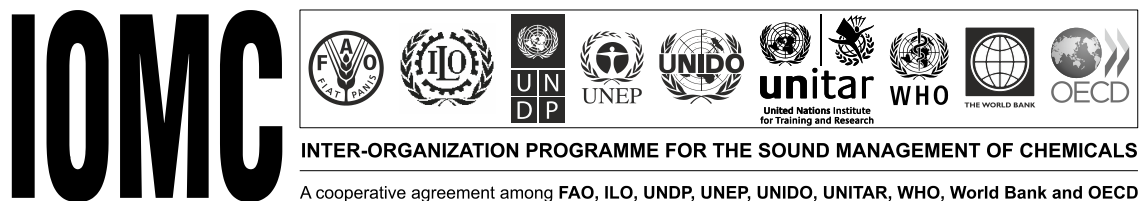
**Analysis by the Inter-Organization Programme for the Sound
Management of Chemicals of the Global Plan of Action and
proposal for simple indicators of progress**

Note by the secretariat

The secretariat has the honour to circulate, for the information of participants, an analysis by the Inter-Organization Programme for the Sound Management of Chemicals of efforts to implement the Global Plan of Action of the Strategic Approach to International Chemicals Management (see annex). The report includes a proposal regarding the development of a set of indicators to track future progress of the Strategic Approach, as well as four key issue papers on chemical accidents and emergency response, the Globally Harmonized System of Classification and Labelling of Chemicals, highly hazardous pesticides and mainstreaming the sound management of chemicals. The document is presented as received by the secretariat, without formal editing.

*SAICM/ICCM.4/1.

Annex



Analysis by the Inter-Organization Programme for the Sound Management of Chemicals of the Global Plan of Action and Proposal for Simple Indicators of Progress

August 2014, updated July 2015

1. Introduction

In order to inform future activities of all SAICM stakeholders and as input for OEWG-2 in December 2014 and ICCM4 in September 2015, the IOMC has prepared an analysis of its review of “IOMC Organizations’ Implementation of the SAICM Global Plan of Action” by looking at specific cases of actions completed, work underway, and gaps in implementation. This paper summarises those findings and has been updated to include a proposal for ICCM4 regarding development of a set of indicators to track future progress of SAICM.

The review of GPA activities in which one or more IOMC organization/s is involved was first developed as a contribution to reporting on implementation of SAICM in preparation for ICCM3 in 2012. That review was updated in June 2014 (<http://www.who.int/iomc/saicm/en/>) and contains annotations regarding progress.

2. Summary of GPA and IOMC involvement

The GPA now includes 38 work areas and 299 associated activities. Of the 299 activities, only about 60 (20%) are considered not to involve IOMC POs (Participating Organizations) in some way (and are rather the purview of national governments, industry, or other actors). In other words, IOMC POs self-identify (though often in collaboration with other actors) with around 80% of GPA activities. Many activities require the input of other SAICM actors given the numerous implementation activities underway in many countries. Achievements, therefore, often represent the individual and collective actions of many actors.

3. Selected Examples of Successes and Remaining Gaps

The 8 areas listed below (and their associated GPA activities) were identified in the review as having had significant IOMC engagement, and where progress was judged either to be good and/or where significant gaps remain. Where progress was good, work still to be done was also identified. IOMC decided not to include the SAICM emerging policy issues due to the attention these issues receive in separate analyses. The list is not exhaustive, but at the time of writing was agreed by IOMC to provide good examples of areas reflecting successes and gaps.

Issue	GPA Activities	Summary of Progress	Remaining Gaps	Development of Tools (T); Assisting with Implementation in Countries (I) by IOMC
Availability of information on chemicals and harmonized risk assessment methodologies.	3, 9, 18, 55, 103, 131, 136	Significant work via OECD eChemPortal, OECD Environmental Risk Assessment Toolkit, WHO Human Health Risk Assessment Toolkit and a series of risk assessment methodologies, further development/translation of ICSCs, documents on lead, mercury, cadmium, etc (WHO EHCs, CICADs, etc).	This activity is on-going as new chemicals enter the market and to reflect scientific advances. Work needs to address new chemicals (e.g. nanomaterials), missing information on existing chemicals, new hazard assessment methods (e.g. high through-put screening methods), and to address emerging and unrecognized risks. Availability of information in more languages.	T, I
GHS implementation	22, 99–101, 168, 248–250, and activity 8 in the table on nano activities	Much progress has been made to develop and promote the GHS, begin its implementation, and develop supporting tools and materials (in particular OECD, ILO, UNITAR, WHO); however, comprehensive sectoral and global GHS implementation at the national level remains at a relatively early stage.	Not all countries or sectors have yet fully implemented GHS. Further legal implementation in many additional countries is still needed to achieve global implementation of GHS. Increased and continued training is needed, in particular for industry (SMEs) and further awareness-raising for consumers and the general public.	T, I
Integration of sound management of chemicals within ministries involved in supporting chemicals production, use and management (“mainstreaming”)	225	UNDP-UNEP Mainstreaming of Sound Chemicals Management; UNEP LIRA guidance and implementation; strengthening of regulatory frameworks for priority chemicals (Stockholm, Basel Convention); FAO on Registration and life cycle management of pesticides.	Many countries have not yet engaged in or realized mainstreaming of chemicals.	T, I
PRTRs	124-126, 177-180	OECD, UNEP, UNITAR all have significant activities/materials that address many of the GPA activities.	Not all countries have functional PRTR systems in place.	T, I
Chemical accidents	74-78	OECD: Guiding Principles for Chemical Accident Prevention, Preparedness and Response, Guidance on Developing Safety Performance Indicators, Guidance for senior leaders in high hazard industries; UNEP's Flexible Framework for Addressing Chemicals Accident	No systematic evaluation of the gaps in capacities for prevention, preparedness and response in many countries. More than 50% of countries still do not have access to a poisons centre.	T, I

Issue	GPA Activities	Summary of Progress	Remaining Gaps	Development of Tools (T); Assisting with Implementation in Countries (I) by IOMC
Emergency response	5, 233	<p>Prevention and Preparedness, and WHO manual for the public health prevention and management of chemical emergencies. WHO International Health Regulations (IHR) also address chemical events.</p> <p>Under the WHO IHR (a legally binding instrument with 196 Parties that entered into force in 2007) guidance, capacity building and training is being delivered in order to meet the core capacities of countries.</p> <p>UNEP APELL programme covers chemicals, dangerous goods, etc.</p> <p>An emergency preparedness, response, and follow-up chapter was added to UNITAR/IOMC National Profile guidance.</p>	<p>Lack of inter-sectoral coordination and communication; lack of capacities for chemical event surveillance and response.</p> <p>Many countries still lack core capacities to deal with chemical emergencies under IHR; core capacities for responding to chemical incidents need to be improved.</p>	T, I
Poisons centres	35,221, 237	<p>WHO is supporting countries to establish poisons centres; tools and guidance are available, International network of poisons centers exists.</p>	<p>Many countries still do not have access to a poisons centre - this represents an institutional capacity/resource gap.</p>	T, I
Highly toxic/hazardous pesticides	23-30; 114-117	<p>FAO/WHO Code of Conduct updated.</p> <p>FAO/WHO Joint Meeting on Pesticide Management criteria for Highly Hazardous Pesticides defined and projects implemented to support regulatory action.</p> <p>Pesticide management scheme included in IOMC Toolbox.</p> <p>WHO Recommended Classification of Pesticides by Hazard has been regularly updated and is used by many countries.</p> <p>OECD IPM Hub.</p>	<p>HHPs are still in widespread use, posing significant/severe threats to human health and the environment.</p> <p>Some countries still lack an effective regulatory system for pesticides.</p> <p>In most developing country situations HHPs cannot be used without risk due to local conditions of use and unavailability of appropriate protective and application equipment, or lack of information/access to alternatives.</p>	T, I

4. Conclusions

From the above analysis, it seems possible to generalize that progress can be made in areas with one or more IOMC PO engaged when some or all of the following exist:

- Strong mandate (e.g. from governing body or international recommendation) or track record to develop an area/activity that is part of “core business”.
- Engagement of different organizations on the same topic, but working in their fields of competence in close collaboration.
- Progressive development over time of guidance and technical materials, when possible supplemented by pilot projects and assisting countries with implementation.
- While not indicated explicitly by this exercise, success virtually always requires strong input from other stakeholders.

However, a continuing challenge for SAICM implementation appears to be the variation in levels of national capacities for implementation of the many activities (though a broad range guidance materials and supporting tools exists or have been developed). In addition, as a rather long and detailed list, not all aspects of the GPA immediately attract support or attention. Many GPA activities are listed as the responsibility of different SAICM stakeholders, such as governments – especially in the areas of legislation development or putting in place national infrastructure (e.g. laboratories) or processes – but also industry, academia, NGOs, trade unions, regional organizations, non-IOMC UN agencies, other international organizations, or convention secretariats.

The IOMC experience suggests that results can be achieved by focusing on particular objectives. The ICCM could therefore consider determining some focal areas for SAICM stakeholders to focus and collaborate on.

Additionally, it could be useful if other SAICM stakeholders undertake a similar exercise of review and analysis of the progress and remaining gaps from their perspectives, and how they could be addressed. Similarly, in taking stock of the successes from the various stakeholders, it may be possible to identify some commonalities (e.g. strong partnerships, high priority national or regional issues, coalitions or alliances of interested stakeholders, etc.) that allowed particular topics to make progress, and examine if lessons may be applicable or of assistance in determining how to make greater progress in areas in which there are still gaps.

As a result of this analysis, the IOMC decided to undertake further in-depth examination in selected areas and has developed four “key issue papers” (on chemical accidents and emergency response, GHS, highly hazardous pesticides, and mainstreaming) which are enclosed with this analysis. The key issue papers aim to provide a short overview of the elements of each issue, summarise progress and gaps, and suggest possible ways forward for reaching the 2020 goal for sound management of chemicals.

5. Proposal for ICCM4

In order to contribute to tracking future progress of SAICM, the IOMC proposes a concise set of quantitative indicators from verifiable sources and for which global data are available. The indicators will in many cases be available as a map, to provide quick visual access to the country or region of interest. The proposed list of topics to be tracked (and the associated lead IOMC organization¹) are as follows:

1. Number of countries with National Profiles (UNITAR)
2. Number of countries implementing GHS (UNITAR)
3. Number of countries with a PRTR (UNITAR)
4. Number of countries with Poisons centres (WHO)
5. Countries with controls for lead in decorative paint (WHO and UNEP)
6. Number of countries that have achieved core capacities for chemicals under the International Health Regulations (WHO)
7. Number of countries with pesticide legislation referencing or based on the International Code of Conduct on Pesticide Management
8. Number of countries with an effective pesticide evaluation and registration system and/or participating in a regional scheme

¹ The Secretariat of the Basel, Rotterdam and Stockholm Conventions and the Interim Secretariat of the Minamata Convention were also consulted in the development of this proposal.

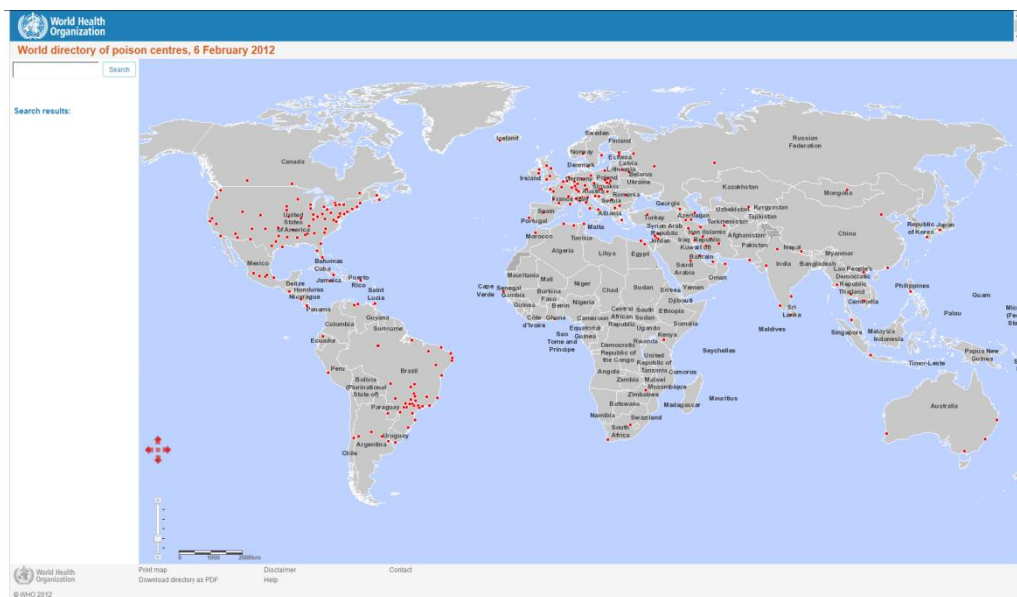
9. Number of countries taking action to reduce risks from pesticides (e.g. a policy, action to ban problematic pesticides, actively promoting ecological and biological control options, food safety programmes in place etc.)
10. Number of parties to the Basel, Rotterdam, Stockholm and Minamata Conventions (BRS Secretariat and Interim Secretariat of the Minamata Convention/UNEP)

Lead organizations will be responsible for the information the indicators are based on, keeping them updated, and maintaining access to them via their own websites. Links to any maps will be provided via the IOMC website (www.iomc.info) and could also be placed on the SAICM website.

Examples of existing indicators and maps:

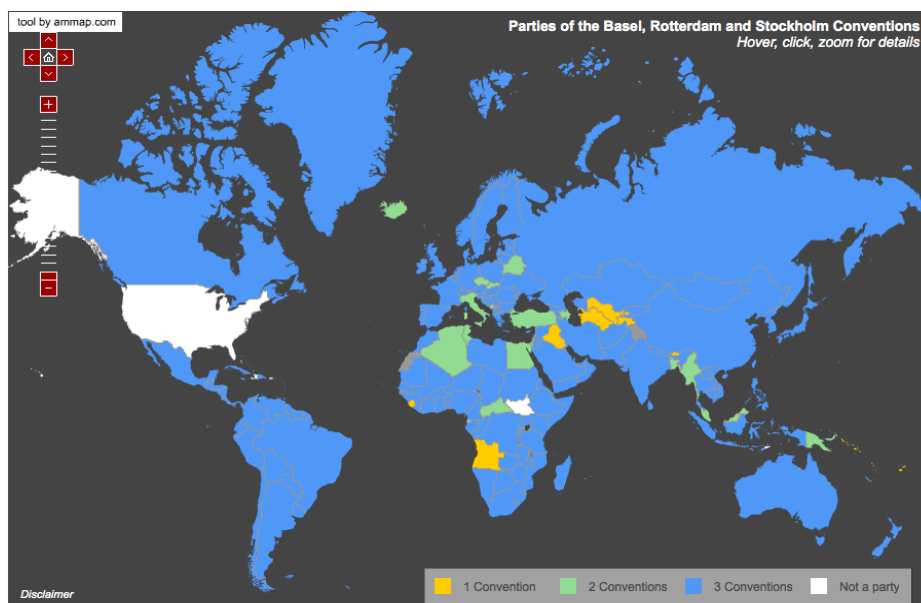
- Countries with Poisons centres:

http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/;
<http://apps.who.int/poisoncentres/>

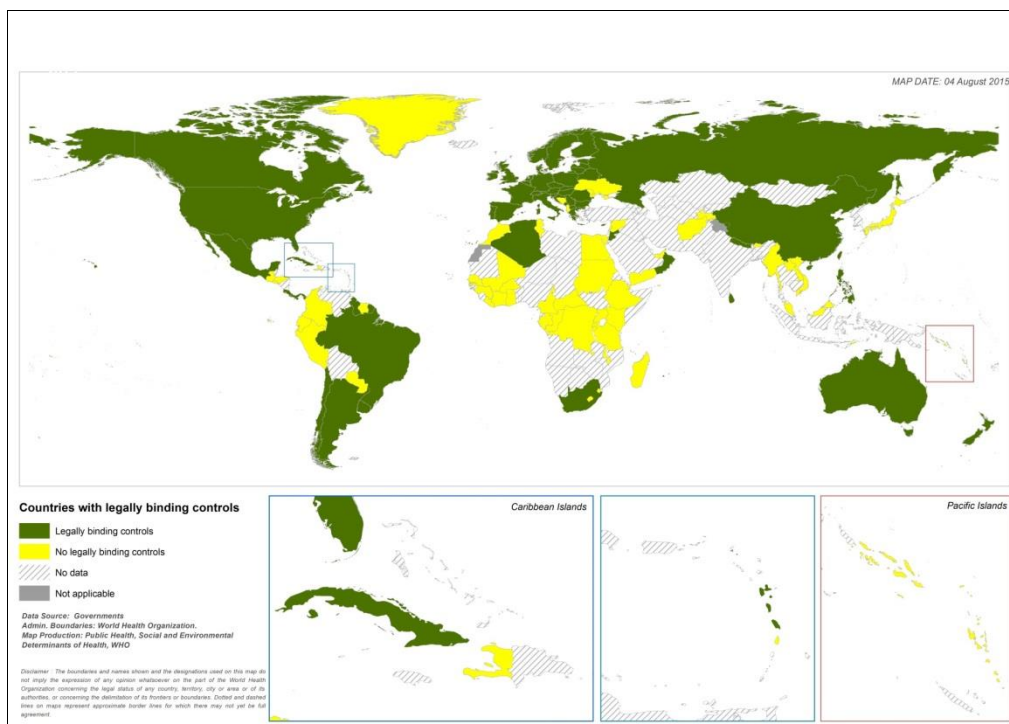


- Ratifications of the Basel, Rotterdam, and Stockholm Conventions:

<http://www.brsmeas.org/Default.aspx?tabid=2649>



- Countries that have in place legally-binding controls on lead in decorative paint:

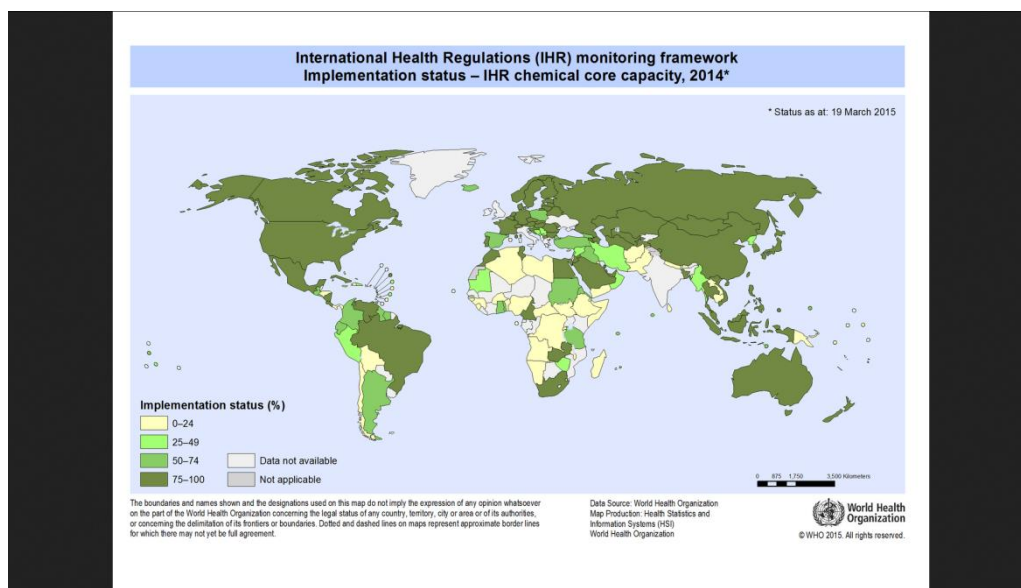


- Ratifications of the Minamata Convention:

<http://mercuryconvention.org/Countries/tabid/3428/Default.aspx>

- IHR chemical core capacity implementation status

http://gamapserver.who.int/mapLibrary/Files/Maps/Global_IHR_Monitoring_Chemical_2014.png



Linkages to the SAICM Overall Orientation and Guidance (OOG)

As the indicator lists and/or maps are also intended to assist in tracking progress of the OOG, the selected indicators respond both to several of the OOGs “basic elements” and “activity areas” for the attainment of sound chemicals management and for implementing the objectives set out in the Overarching Policy Strategy towards achievement of the overall 2020 goal, as follows:

SAICM OOG “Basic Element”	Proposed IOMC indicator
(a) Legal frameworks that address the life cycle of chemicals and waste;	8, 9
(b) National, subregional, regional and international enforcement and compliance mechanisms;	5, 9
(c) Implementation of relevant international multilateral environmental agreements, health and labour conventions as well as voluntary mechanisms;	2, 6, 7, 9
(d) Strong institutional frameworks and coordination mechanisms among relevant stakeholders;	1
(e) Collection and systems for the transparent sharing of data and information among all relevant stakeholders using a life-cycle approach, such as the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals;	1, 2
(f) Industry participation and defined responsibility across the lifecycle, including cost recovery policies and systems as well as the incorporation of sound chemicals management into corporate policies and practices;	n/a
(g) Inclusion of chemicals and waste in national health, labour, social and economic budgeting processes and development plans;	n/a
(h) Chemicals risk assessment and risk reduction through the use of best practices;	5
(i) Strengthened capacity to deal with chemicals accidents, including institutional strengthening for poison centers;	4
(j) Monitoring and assessing the impacts of chemicals on health and the environment;	3, 4, 5
(k) Development and promotion of environmentally sound and safer alternatives.	n/a

SAICM OOG “Activity Area”	Proposed IOMC indicator
(a) Enhance responsibility of stakeholders: promoting and reinforcing commitment and multisectoral engagement;	1, 2
(b) Establish and strengthen national legislative and regulatory frameworks for chemicals: improving capacity to address the basic elements of sound management of chemicals and encouraging regional cooperation;	1, 2, 5, 6, 7, 9
(c) Mainstream the sound management of chemicals and waste in the sustainable development agenda: advancing risk reduction and enhancing the link between sound management of chemicals and waste with health, labour, social and economic development planning, processes and budgets;	n/a
(d) Increase risk reduction and information sharing efforts on emerging policy issues: continuing to promote actions on issues not currently addressed in existing agreements and work areas, complementing initiatives taken by other bodies;	3, 4, 6, 8
(e) Promote information access: increasing accessibility of information and making it understandable for all levels of society;	1, 3, 4,
(f) Assess progress towards the 2020 goal of minimizing adverse effects of chemicals on human health and the environment: identifying achievements, understanding the gaps in implementation and prioritizing actions for achievement by 2020.	All



IOMC Key Issue Paper #1

Implementing the SAICM GPA: Chemical Accidents and Emergency Response

August 2014

1. Background

The production and use of chemicals is predicted to further increase worldwide as countries develop. With increasing development and industrialization, the risk and occurrence of chemical accidents – and their potential for serious impacts on human health and the environment, as well as economic consequences – has led to significant focus on the prevention of, preparedness for, and response to such accidents, whether at industrial facilities or in the public domain.

The scope of chemical accidents/incidents is broad and encompasses: chemical release from large chemical installations; smaller scale releases from SMEs (which may be located in residential areas); contamination of food and water supplies; and deliberate releases and ‘silent’ releases.

In SAICM, chemical accidents and emergency response are a GPA work area with 10 associated activities (5, 35, 74-78, 221, 233, 237). A significant number of other SAICM activities (or implementation-related aspects of those activities) are also related to chemical accidents (e.g. development of occupational safety policies, adopting cleaner production technologies, etc.).

2. Actors Involved in Chemical Accident Prevention and Emergency Response

Governments – establish laws, regulations and chemical accident prevention and preparedness programmes, as well as formalized mechanisms for exchange of information among relevant ministries and agencies (such as public health, environment, civil defense and disaster management agencies), as well as industry and other non-governmental actors (such as local and/or regional authorities, emergency responders, etc).

Industry – has the primary responsibility for the safety of their hazardous installations and for establishing appropriate accident prevention policies, programmes, and procedures, as well as promoting a safety culture and establishing safety management systems. As manufacturers, industry is responsible for adequate labelling and packaging of products (including bulk chemicals) to reduce the risk of accidents (e.g. identity of contents, hazard warnings, precautionary information about storage, safe use, appropriately designed containers and closures).

Civil Society/NGOs – engage in awareness raising concerning hazardous installations and preparedness efforts for accidents involving the public (including information programmes for community members) and information sharing, cooperate with local authorities and industry in emergency planning and response.

Local authorities – create awareness and prepare for emergencies (e.g. local emergency response plans) with actors in their jurisdiction (e.g. police, fire services, local planners, plant managers, etc.) and ensure compliance with regulations on land use, use of premises by small businesses, waste disposal, etc.

Trade Unions/workers – are aware of plans for accident prevention and response and comply with these and other emergency response procedures.

IOMC participating organizations (POs) – support the above actors in relation to prevention, preparedness, detection, alert and response to chemical accidents and incidents with specific programmes, by developing guidelines and training programmes, and promoting access to information and tools (e.g. poisons centres).

3. Outcomes to date

A wide range of guidance and support materials – including training programmes – has been developed and is a contribution to SAICM. However, many countries still lack core capacities to implement comprehensive chemical accident prevention programmes and response measures (see section 4).

Of the 10 chemical accidents and emergency response activities listed in the SAICM GPA, IOMC POs are contributing to all of them – see Annex 1. Specific outcomes from the IOMC contributing to prevention, preparedness, and response to chemical accidents include:

- **IOMC Toolbox for Decision Making in Chemicals Management**
Includes a module on “Chemical accidents: major hazards prevention, preparedness and response”.
- **OECD Chemical Accidents Programme**
Works to develop guidance on prevention of, preparedness for, and response to chemical accidents. Facilitates the sharing of information and experiences of both OECD and non-member countries and helps public authorities, industry, labour and other interested parties prevent chemical accidents and respond appropriately if one occurs.
- **UNEP Flexible Framework Initiative for Addressing Chemical Accident Prevention and Preparedness**
Promotes improved chemical accident prevention and preparedness (CAPP), particularly in rapidly industrializing economies that need support to address the increased risks of chemical accidents, through supporting the development of policies and programmes that are adapted to the country context. The Guidance builds on existing international and regional instruments (including ILO Convention 174, UNECE Convention on Transboundary Effects of Industrial Accidents, OECD Guiding Principles, and Seveso Directives).
- **UNEP Awareness and Preparedness for Emergencies at Local Level (APELL)**
Promotes a multi-stakeholder, local level approach to improving awareness of risks and a preparedness planning for technological accidents and environmental emergencies. It supports the identification of risks in an industrialised community, initiating measures for risk reduction and mitigation and to develop coordinated preparedness between industry, local authorities and the community.
- **UNEP-OCHA Flash Environmental Assessment Tool (FEAT)**
FEAT helps to identify existing or potential acute environmental impacts that pose risks for humans, human life-support functions and ecosystems, following sudden-onset natural disasters. FEAT focuses primarily on immediate and acute impacts arising from released hazardous chemicals. It can also help to identify potential long-term issues, for example those involving releases of persistent compounds. Based on this information, users can decide on initial risk management actions under disaster conditions. In particular, it helps users make timely and accurate requests for additional, specialized equipment or expertise to address impacts.
- **WHO Poisons Centre Programme**
This programme aims to help countries establish and strengthen poisons centres. WHO has developed guidance and training materials and organizes training workshops on clinical toxicology and on poisons centre operations. WHO also facilitates the provision of training placements at well-established poisons centres. In addition, WHO has developed tools to facilitate the collection of internationally harmonized data on poisoning, in particular a controlled, multilingual terminology for describing poisoning exposures.
- **WHO Chemical incident alert and response**
Maintains a system of event-based surveillance to rapidly detect, verify and assess chemical events of international public health concern. WHO also assists countries to respond to such events. WHO assistance ranges from the provision of technical guidance to mobilizing response missions to countries.

- **WHO International Health Regulations (IHR 2005)**
The International Health Regulations (IHR) are an international legal instrument that is binding on 196 countries across the globe, including all the Member States of WHO. IHR requires countries to notify WHO of chemical events of (potential) international health concern. Since there are common capacity needs under SAICM and the IHR, WHO has organised a number of regional workshops to bring together IHR and SAICM National Focal Points.
- **WHO Capacity-building for the public health sector**
Provides guidance and training for strengthening the role of public health in chemical incident and emergency prevention, preparedness, detection, alert, response and recovery, particularly for developing countries and those with economies in transition.
- **WHO/ILO International Chemical Safety Cards (ICSC)**
The ICSCs are a multilingual resource that provides essential safety and health information on chemicals in a clear and concise way. While principally aimed at improving occupational safety the ICSCs include information relevant for chemical release, including on health effects personal protection, management of spills and first aid.
- **ILO Convention 174 - Prevention of Major Industrial Accidents Convention, 1993**
This convention (and its accompanying Recommendation No. 181) aims to protect workers, the public and the environment from major industrial accidents, in particular through the prevention of major accidents involving hazardous substances and the limitation of the consequences of such accidents.
- **UNITAR's guidance for National Chemicals Management Profiles** now includes a chapter on "Chemical Emergency Preparedness, Response, and Follow-up".
- The **SAICM Quick Start Programme Trust Fund** is funding projects on Chemical Accident Prevention and Preparedness Programmes (CAPP) in 2 countries, with international support provided by **UNEP**.

4. Gaps remaining and implications for the 2020 goal

One key challenge for chemical accidents and emergency response is that there is, as yet, no clear definition of all of the gaps in capacities for prevention, preparedness and response in many countries. While some countries have reported gaps in some areas, for example in IHR core capacities in relation to public health events caused by chemicals, there has been no systematic evaluation against a set of indicators for capacities in this area (though some guidance exists). Thus there is no full appreciation of the scale and breadth of gaps and a resulting lack of data for all sectors. Nevertheless, some gaps as noted below can be identified:

1. More than 50% of countries still do not have access to a poisons centre - this represents an institutional capacity/resource gap. There are particular gaps in the African and Eastern Mediterranean regions and in the small island states in the Western Pacific.
2. Lack of information (e.g. databases) on hazardous installations.
3. With regard to core national capacities for implementing the relevant IHR provisions, at the global level an average of 52% of the required capacities have been established, ranging from 29% in the WHO African region to 74% in the WHO European region. Countries have, in particular, also identified the following gaps:
 - Lack of inter-sectoral coordination and communication
 - Lack of capacities for chemical event surveillance and response.
4. There remains a general lack of health sector capacities, as the SAICM health sector strategy has indicated, especially in developing countries and countries with economies in transition for preventing and managing chemical emergencies, including providing treatment for those affected.

Possible options for addressing gaps

- a) Expand regional or sub-regional multisectoral dialogues involving all relevant sectors, with the aim of sharing experience and best practices. This will also serve to strengthen health and environment alliances and facilitate implementation of the SAICM Health Sector Strategy.
- b) Finalise the chemical accidents module and the IHR section in the public health module in the IOMC Toolbox (expected during 2014-15). Use the modules in national and regional capacity building activities.
- c) Strengthen implementation of the IHR. Raise awareness about the roles and responsibilities of non-health sector actors in the implementation of the IHR.
- d) Undertake further outreach and awareness raising regarding chemical accidents and promote implementation of relevant international instruments (e.g. ILO C174, International Health Regulations, UNEP APELL, etc.)
- e) Measures to provide access to poisons centres should be included in country plans for institutional strengthening in the sound management of chemicals. This will support implementation of the IHR and the chemicals MEAs.
- f) Further develop existing training (e.g. creating an online version of the UNEP/UNECE/OCHA training course on industrial accidents, expand the on-line training course on the public health management of chemical incidents to include the IHR).
- g) Explore linkages with related initiatives (e.g. general chemicals legislation development, cleaner production, etc.) in order to leverage increased focus and capacity development for chemical accidents and emergency response.
- h) Increase the focus on chemical accidents within the SAICM context.

5. Selected IOMC Resources:

- IOMC Toolbox: <http://iomctoolbox.oecd.org/>
- OECD Guiding Principles for Chemical Accident Prevention, Preparedness and Response (2003): <http://www.oecd.org/chemicalsafety/chemical-accidents/guiding-principles-chemical-accident-prevention-preparedness-and-response.htm>
- OECD Guidance on Safety Performance Indicators (2008): <http://www.oecd.org/chemicalsafety/chemical-accidents/guidanceonsafetyperformanceindicators.htm>
- OECD Guidance for senior leaders in high hazard industries (2012): <http://www.oecd.org/chemicalsafety/chemical-accidents/corporategovernanceforprocesssafety.htm>
- SAICM Strategy for strengthening the engagement of the health sector in the implementation of the Strategic Approach to International Chemicals Management: <http://www.who.int/ipcs/saicm/saicm/en/>
- UNEP, A Flexible Framework for Addressing Chemical Accident Prevention and Preparedness: A Guidance Document (2010): <http://www.unep.org/flexibleframework/>
- UNEP, A Flexible Framework for Addressing Chemical Accident Prevention and Preparedness: An Implementation Support Package (2012) : [http://www.unep.org/resourceefficiency/Portals/24147/Safer%20Production%20\(Web%20uploads\)/UN_Flexible_Framework_ISP_cor.pdf](http://www.unep.org/resourceefficiency/Portals/24147/Safer%20Production%20(Web%20uploads)/UN_Flexible_Framework_ISP_cor.pdf)
- UNEP, APELL: a Process for Responding to Technological Accidents (1988, updating in 2014): <http://www.unep.fr/scp/publications/details.asp?id=WEB/0064/PA>
- UNEP, APELL Multi-Hazard Training Kit For Local Authorities - For Community Vulnerability Reduction, Prevention, and Preparedness (2010): <http://www.unep.fr/scp/publications/details.asp?id=DTI/1289/PA>
- UNEP-OCHA Flash Environmental Assessment Tool (FEAT): https://docs.unocha.org/sites/dms/Documents/FEAT_Version_1.1.pdf

- UNEP, TransAPELL: Guidance for Dangerous Goods Transport Emergency Planning in a Local Community (2000): <http://www.unep.fr/scp/publications/details.asp?id=2679>
- UNEP, Management of Industrial Accident Prevention and Preparedness: A Training Resource Package (1996): <http://www.unep.fr/scp/publications/details.asp?id=WEB/0110/PA>
- UNITAR, Preparing a National Profile to Assess Infrastructure and Capacity Needs for Chemicals Management: A Guidance Document (2nd Edition 2012): <http://www2.unitar.org/cwm/publications/inp.aspx>
- WHO Manual: The Public Health Management of Chemical Incidents (2009): http://www.who.int/environmental_health_emergencies/publications/Manual_Chemical_Incidents/en/
- WHO Guidelines for Poison Control (1997) (in English, French, Spanish and Russian): http://www.who.int/ipcs/poisons/centre/poisons_centres/en/index.html
- WHO Poisons centre training manual: http://www.who.int/ipcs/poisons/training_manual/en/index.html
- WHO, Early detection, assessment and response to acute public health events: Implementation of Early Warning and Response with a focus on Event-Based Surveillance (2014): http://www.who.int/ihr/publications/WHO_HSE_GCR_LYO_2014.4/en/
- WHO International Health Regulations (2005): <http://www.who.int/ihr/publications/9789241596664/en/>
- WHO IHR (2005) WHA -Implementation of the International Health Regulations (2005); Report by the Director-General: http://apps.who.int/gb/ebwha/pdf_files/WHA67/A67_35Add1-en.pdf
- WHO World Directory of Poison Centres: http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/

Annex 1: Chemical Accidents/Emergency Response activities in SAICM GPA

Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects	IOMC Remarks on Implementation
5. Build capacities of countries to deal with poisonings and chemical incidents.	National Governments Regional organizations IOMC (UNEP, WHO)	2006–2020 (deliverables to be set for each SAICM review period)	The number of countries with capacity to deal with poisoning and chemicals incidents has increased.	An integrated approach to establishment and strengthening of poisons centres and surveillance, alert and response mechanisms for chemical incidents Technical cooperation on a regional basis	Too many countries still do not have access to a poisons information centre and lack core capacities to deal with chemical emergencies under the IHR (2006).
35. Establish poisoning information and control centres and systems for data collection and analysis.	National Governments Medical institutions IOMC (WHO)	2006–2010	Poisoning information and control centres are established.	Infrastructure Technical capacity	WHO is assisting countries to establish poisons centres, however too many countries still do not have access to a poisons information centre
74. Develop integrated national and international systems to prevent major industrial accidents and for emergency preparedness and response to all accidents and natural disasters involving chemicals.	National Governments IOMC (UNEP, ILO, WHO, UNIDO, OECD, UNDP) Basel Convention Secretariat United Nations Disaster Assessment and Coordination Team Industry Trade unions NGOs	2006–2012	Integrated systems and centres to prevent major industrial accidents and for emergency preparedness and response are established and implemented in all countries.	ILO Convention 174, Prevention of Major Industrial Accidents OECD project on safety performance indicators UNEP APELL programme CEFIC Safety and Quality Assessment System for road and rail transport Application of process safety management to chemical operations and the strengthening of integrated approaches Poison centres	Guidance Completed: see OECD Guiding Principles for Chemical Accident Prevention, Preparedness and Response, OECD Guidance on Developing Safety Performance Indicators, OECD Guidance for senior leaders in high hazard industries. UNEP's Flexible Framework for Addressing Chemicals Accident Prevention and Preparedness, and WHO manual for the public health prevention and management of chemical emergencies. WHO International Health Regulations (2005) address chemical events, however many countries lack core capacities for implementation.
75. Encourage the development of an international mechanism for responding to requests from countries affected by chemical accidents.	IOMC (WHO)	2010–2020	An international mechanism to respond to requests from countries affected by chemical accidents is established and implemented.	Design of mechanism	In place. WHO IHR 2005 include chemical incidents of international public health concern. As well, member states may request WHO assistance. Regional mechanisms e.g. UNECE Convention on Transboundary Effects of Industrial Accidents.

Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects	IOMC Remarks on Implementation
76. Minimize the occurrence of poisonings and diseases caused by chemicals.	Industry National Governments IOMC (UNEP, ILO, WHO, UNIDO, OECD, UNDP) Trade unions NGOs	2006–2010	Occurrence of poisonings and diseases caused by chemicals is reduced and medical surveillance systems are put in place in all countries. Biological indicators are available.	Information systems to collect and manage data National risk reduction strategy Training Availability of information Awareness-raising	Too many countries still do not have access to a poisons information centre. WHO Biological Exposure Indices are available for a range of environmental and occupational contaminants. Data on poisonings to be available in future WHO BoD updates.
77. Provide for national collection of harmonized data, including categorization by, for example, type of poison, chemical identity, structure, use or function.	National Governments IOMC (UNEP, ILO, WHO, UNIDO, OECD, UNDP) Industry NGOs	2006–2010	Systems for collection of harmonized data are established and are used in all countries.	OECD chemicals programme	In relation to chemical emergencies and poisoning, WHO IHR and INTOX management system provide harmonized templates.
78. Address gaps in the application of safety procedures relevant to the operation of chemical-intensive facilities, including the environmentally sound management of hazardous substances and products.	Industry IOMC (UNEP, ILO, FAO, WHO, UNIDO, OECD) Trade unions NGOs	2006–2010	Gaps in the application of safety procedures relevant to the operation of chemical-intensive facilities, including the environmentally sound management of hazardous substances and products, are identified. Gaps are filled.	ILO Global Strategy on Occupational Safety and Health	ILO guidance provided by the ILO Global OSH strategy being used.
221. Establish or strengthen national infrastructure, including for information management, poison control centres and emergency response capabilities for chemical incidents.	IOMC (UNEP, ILO, FAO, WHO, UNIDO, UNITAR, UNDP) National Governments	2006–2010	Infrastructure for the sound management of chemicals is established in all countries.	Methodologies and guidelines Model legislation Training Guidelines	>50% of countries have a poisons information centre. WHO IHR for chemicals in place.
233. Provide training in emergency response.	National Governments IOMC (UNEP, FAO, WHO) Industry Trade unions	2006–2010	Training in emergency response is provided in all countries.	Model legislation Availability of emergency methodologies Training	Under the WHO IHR capacity building and training is being delivered. However, core capacities for responding to chemical incidents need to be improved.

Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects	IOMC Remarks on Implementation
237. Establish and strengthen poison control centres to provide toxicological information and advice; develop relevant clinical and analytical toxicological facilities according to the needs identified and resources available in each country.	National Governments IOMC (WHO)	2006–2010	Poison control centres are established and strengthened and clinical and analytical toxicological facilities are established in all countries, according to needs and available resources.	WHO poison centre initiative	WHO is supporting countries, e.g. to establish poisons centres, however too few countries have access to a poisons information centre.



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IOMC Key Issue Paper #2

Implementing the SAICM GPA: the GHS

August 2014

1. Background

UNCED in 1992 called for “A globally harmonized hazard classification and compatible labelling system, including material safety data sheets and easily understandable symbols, should be available, if feasible, by the year 2000” (Agenda 21, chapter 19).

In SAICM, “Implementation of the GHS” is a GPA work area with 9 associated activities (22, 99–101, 168, 248–250, and activity 8 in the table on nanomaterials activities). A significant number of other SAICM activities (or implementation-related aspects of those activities) are also GHS-related (e.g. generating hazard information or putting worker right-to-know policies in place).²

2. Actors Involved in GHS Implementation

Governments – need to provide the regulatory framework and institutional infrastructure to implement the GHS at the national level.

Industry – has core responsibility to classify chemicals and develop/provide labels and safety data sheets (SDS) accordingly.

Trade Unions – engage in worker safety and protection activities based on chemical labels and SDS.

Civil Society/NGOs – engage in awareness raising and information sharing for consumers and the general public.

UNECE – provides Secretariat services to the ECOSOC Sub-Committee of Experts on the GHS (which is responsible for maintaining the GHS, promoting its implementation and providing additional guidance as needs arise, while maintaining stability in the system to encourage its adoption)

Transport organizations – support GHS implementation by selecting GHS hazard classes and categories and GHS hazard communication tools that are relevant in the transport sector and by imposing mandatory application through their respective legally binding instruments (i.e. International Maritime Organization (IMO); International Civil Aviation Organization (ICAO); UNECE Inland Transport Committee (ITC); Intergovernmental Organization for International Carriage by Rail (OTIF)).

IOMC participating organizations (POs) – support GHS implementation with specific programmes, by aligning existing related documents to the GHS, and promoting access to information and tools that assist with GHS implementation.

Following endorsement of the GHS by UN ECOSOC in 2003, a number of IOMC POs had already initiated a range of support programmes and remain active as the GHS moved from development to implementation. In particular:

- Work of OECD on GHS classification criteria for health and environmental hazard classes
- Establishment of the UNITAR/ILO programme to support capacity building for GHS implementation

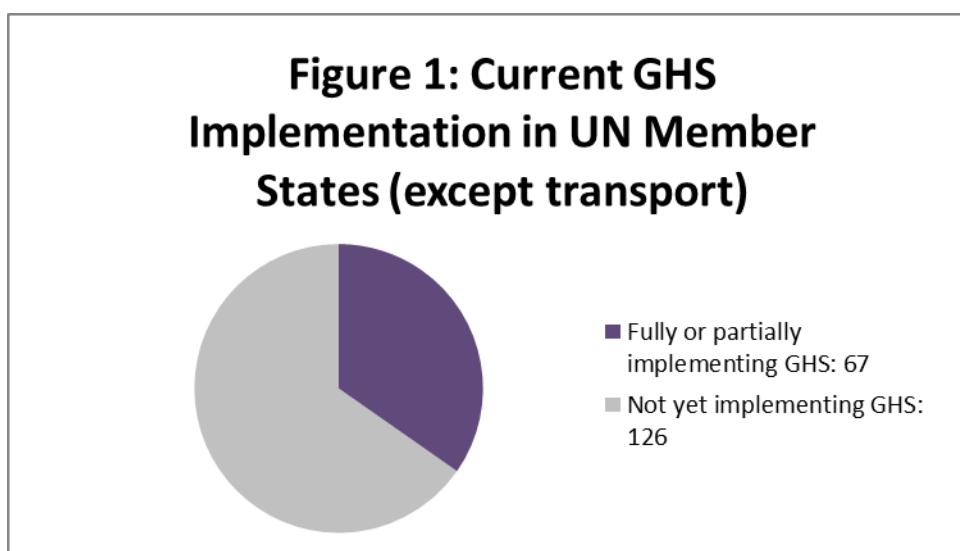
² In preparing this paper, IOMC consulted and received input from UNECE (Secretariat to the UN GHS Subcommittee) – see http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html.

- Update of *WHO Recommended Classification of Pesticides by Hazard*
- Establishment of *WSSD Global Partnership for Capacity Building to Implement the GHS*
- Inclusion of GHS in the *IOMC Toolbox for Decision Making In Chemicals Management* (expected 2014-15)

3. Outcomes to date

Much progress has been made to develop and promote the GHS, begin its implementation, and develop supporting tools and materials; however, comprehensive (*i.e.* multi-sectoral) and global GHS implementation at the national level remains at a relatively early stage.

The UNECE GHS implementation page³ provides a general overview of the level of national GHS implementation with a focus on legal instruments, codes or standards which have been adopted or amended to reflect the provisions of the GHS. As shown in Figure 1, of 193 UN member states, there are 39 countries as well as the EU (28 countries) listed as fully or partially implementing the GHS, but a large disparity exists in the levels of implementation. The EU and New Zealand, for example, are implementing in most sectors, while a number of others (e.g. Australia, USA) are implementing only for workplace chemicals and transport at this time. For developing and transition countries (except in the transport sector), there is only a relatively small number that have made significant progress with implementation (<15) or set out their implementation timetable. However, the UNECE page is also largely reliant upon submissions from countries and so information may not be complete or always up-to-date.



Of the 9 GHS activities listed in the SAICM GPA, IOMC POs are contributing to 6 of them (the other 3 are listed as industry or national government responsibilities; or for reviewing GHS for its applicability to nanomaterials, the UN SCEGHS) – see Annex 1. Other specific outcomes from the IOMC contributing to GHS implementation include (some of which are not directly mentioned in the GPA)⁴:

- **IOMC** Coordinating Group completed development of the GHS in 2001
- GHS document presented to UN GHS Sub-Committee and formally adopted the system at its first session in December 2002; subsequently endorsed by the UN Economic and Social Council (ECOSOC) in July 2003 (http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html)
- **WHO-ILO** International Chemical Safety Cards (ICSC) now include GHS classification and labelling elements
- **OECD** eChemPortal now includes databases with national GHS classifications (<http://www.echemportal.org>)

³ http://www.unece.org/trans/danger/publi/ghs/implementation_e.html

⁴ A range of other outcomes not directly linked to IOMC, related in particular to transport of dangerous goods and the UNECE Convention on the Transboundary Effects of Industrial Accidents, are not included in this analysis; however, further information may be found at: <http://www.unece.org/trans/danger/danger.html>.

- **UNITAR/ILO** GHS Capacity Building Programme has developed a range of guidance and training materials (in multiple languages), including an e-learning course, and implementation of regional and country projects, including 15 GHS projects funded by the *SAICM Quick Start Programme Trust Fund (QSPTF)*.
- In the period 2002-2013, the *WSSD Global Partnership for Capacity Building to Implement the GHS* included:
 - 94 beneficiary countries
 - 12 regional workshops
 - Over 85 different awareness-raising materials developed and translated into national and local languages, with more than 65,000 units distributed
 - Eight peer-reviewed guidance documents and training packages produced and translated into multiple languages
 - More than 8,000 trained beneficiaries
 - Over US\$8 million mobilized
- **FAO** promotes the implementation of the GHS in the field of pesticides through three major activities:
 - Integration of the hazard classification principles of the GHS into the next revision of the FAO Guidelines on Pesticide Registration
 - Integration of the labelling principles of the GHS into the next revision of the FAO Guidelines on Good Labelling Practice for Pesticides
 - Awareness building and training of pesticide regulators, pesticide manufacturers and distributors, and pesticide users on the GHS, through FAO pesticide management programmes and in cooperation with others

4. Gaps remaining and implications for the 2020 goal

- 1) Not all countries or sectors have yet fully implemented GHS.
- 2) Further legal implementation in many additional countries is still needed to achieve global implementation of GHS.
- 3) In relation to the call for a review of the applicability of the GHS criteria for manufactured nanomaterials (as well as how information on safe use should be included in Safety Data Sheets), this has begun in the context of UN GHS Subcommittee but is at an early stage.
- 4) Work to harmonize classifications for given chemicals is needed. Some competent authorities have developed lists of chemicals classified in accordance with GHS criteria. In some cases, these official classifications are mandatory while in some others they are only recommended. Work for the development of a harmonized classification list of chemicals has begun at the UN GHS Subcommittee but is at an early stage.
- 5) Increased and continued training is needed, in particular for industry (SMEs) and further awareness-raising for consumers and the general public.
- 6) GHS is often considered a “core” or foundation for sound chemicals management and for many other activities listed in the GPA, and therefore also for the overall 2020 goal. An original target of having the GHS “fully operational” by 2008 was given by WSSD, but no follow-up targets have been established. How could increased and broader implementation be further encouraged towards 2020?

Possible options for addressing gaps

- a) Mobilise resources to expand existing programmes to assist countries with national implementation or facilitate regional dialogues.
- b) Provide additional training on GHS elements (IOMC Toolbox GHS module and UNITAR GHS e-learning course could be useful here).
- c) Strengthen outreach to under-represented sectors (*e.g.* agriculture, consumers) to encourage broader GHS implementation.
- d) Governments need to assess existing legislation and/or develop new legislation (as appropriate) in order to give legal basis for GHS implementation in their countries.

- e) Explore linkages with related initiatives (e.g. general chemicals legislation development, pesticide management, etc.) in order to leverage increased GHS implementation with other actions.
- f) Encourage industry to share information on progress (e.g. experience with using GHS classifications and label and SDS format).

5. Selected IOMC Resources:

- IOMC: Assisting Countries with the Transition Phase for GHS Implementation (tools and resources of the IOMC to support implementation of the GHS), November 2008 Edition (available in all 6 UN languages): <http://www2.unitar.org/cwm/publications/ghs.aspx>
- UNITAR-ILO Global GHS Capacity Building Programme: <http://www.unitar.org/cwm/ghs>
- UNITAR-ILO-OECD Global GHS Partnership: http://www2.unitar.org/cwm/ghs_partnership/index.htm
- WHO Recommended Classification of Pesticides by Hazard: http://www.who.int/ipcs/publications/pesticides_hazard/en/
- OECD contributes to improving access to national/regional GHS classifications through eChemPortal: <http://www.oecd.org/chemicalsafety/risk-assessment/publicavailabilityofnationalregionalghsclassifications.htm>
- WHO-ILO International Chemical Safety Cards (ICSCs): <http://www.ilo.org/dyn/icsc/showcard.home>; http://www.ilo.org/safework/info/publications/WCMS_113134/lang--en/index.htm
- ILO Chemical Control Banding: http://www.ilo.org/legacy/english/protection/safework/ctrl_banding/index.htm
- A GHS module is being prepared for inclusion in the IOMC Toolbox in 2014-15, see <http://iomctoolbox.oecd.org/>

6. Other available resources:

- Information about the GHS (general information, official text, presentations about the GHS, GHS pictograms, GHS status of implementation worldwide, etc) following the links on the left hand-side menu under “GHS”:
 - http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html
- Information about the work of the GHS Sub-Committee (reports, agendas, working and information documents submitted for its consideration) following the links on the left hand-side menu under “GHS Sub-Committee”
 - <http://www.unece.org/trans/main/dgdb/dgsubc4/c4rep.html>
- Information about the European Agreement on the International Carriage of Dangerous Goods by Road (ADR) (official text, contracting parties, lists of competent authorities etc) following the links on the left hand-side menu under “ADR”
 - http://www.unece.org/ar/trans/danger/publi/adr/adr_e.html
- Information about the European Agreement on the International Carriage of Dangerous Goods by Inland Waterways (ADN) (official text, contracting parties, lists of competent authorities etc) following the links on the left hand-side menu under “ADN”
 - http://www.unece.org/ar/trans/danger/publi/adn/adn_e.html
- UNECE Convention on the Transboundary Effects of Industrial Accidents
 - <http://www.unece.org/env/teia.html>

Annex 1: GHS activities in SAICM GPA

Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects	IOMC Remarks on Implementation
22. Establish roles and responsibilities of employers, employees, chemical suppliers and Governments in the implementation of GHS.	IOMC (ILO, FAO, WHO, UNITAR, OECD) National Governments Industry Trade unions	2007	Roles and responsibilities of employers, employees, chemical suppliers and Governments in the implementation of GHS are established and disseminated in all countries.	International initiative: UNITAR/ILO GHS Capacity-building programme Model legislation	UNITAR/ILO guidance on how to develop a national GHS implementation strategy available.
99. Establish information management systems for hazard information.	National Governments Industry	2006–2008	Information systems are established.	International initiative OECD initiative on increasing generation of hazard data	Completed (see OECD Harmonised Templates, eChemPortal)
100. Prepare safety data sheets and labels.	Industry	2006–2008	GHS is implemented.	Responsible Care Information in appropriate languages	N/A
101. Complete GHS awareness-raising and capacity-building guidance and training materials (including GHS action plan development guidance, national situation analysis guidance and other training tools) and make them available to countries.	Industry Trade unions NGOs IOMC (ILO, WHO, UNITAR)	2007	All countries have prepared implementation strategies for GHS.	Awareness-raising activities Sharing of the results of pilot projects Development of a roster of GHS experts who can provide support on training and capacity-building activities on the application of GHS classification, labelling, and safety data sheets	UNITAR/ILO GHS capacity building programme in place and active since 2001 UNITAR GHS elearning course
168. Review national legislation and align it with GHS requirements.	National Governments IOMC (ILO, FAO, UNITAR)	2006–2010	GHS is implemented in all countries.	Model legislation	Mainly a national responsibility.
248. Establish accredited testing facilities to undertake testing of hazard characteristics of chemicals for classification and verification of label information.	National Governments	2011–2015	Accredited testing facilities for GHS purposes are established at least in all economic regions.	ILAC extension of accreditation systems to all regions	N/A

Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects	IOMC Remarks on Implementation
249. Promote training in hazard classification.	National Governments IOMC (WHO, FAO, OECD, UNITAR) Industry Trade unions NGOs	2006–2010	Multi-stakeholder training programmes on hazard classification are developed and implemented in all countries.	Availability of criteria for hazard classification Training	UNITAR/ILO GHS capacity building programme, including GHS training, in place and active since 2001. UNITAR GHS elearning course.
250. Make available sufficient financial and technical resources to support national and regional GHS capacity-building projects in developing countries and countries with economies in transition.	IOMC (FAO, UNITAR, OECD) GEF	2006–2010	Sufficient financial and technical resources to support national and regional GHS capacity-building projects in developing countries and countries with economies in transition are available.	Availability of national GHS capacity-building programmes Sharing of results of UNITAR pilot projects	UNITAR/ILO support national and regional GHS projects via bilateral donors and other mechanisms.
8. Review the applicability of the GHS criteria for manufactured nanomaterials as well as how information on safe use should be included in MSDS.	Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System on Classification and Labelling of Chemicals	2012–2015	Incorporation of criteria for manufactured nanomaterials into GHS Relevant information about nanomaterials included in MSDS	Revision of “Purple Book”	N/A



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IOMC Key Issue Paper #3

Implementing the SAICM GPA: Highly Hazardous Pesticides

August 2014

1. Background

A considerable proportion of pesticides still being used can be considered highly hazardous because they have a high acute toxicity, have known chronic toxic effects even at very low exposure levels, or are very persistent in the environment or in organisms. In addition, pesticides that appear to cause severe or irreversible harm to health or the environment under conditions of use in a country may be considered highly hazardous, independently of their intrinsic hazard. In developing countries in particular, highly hazardous pesticides (HHPs) may pose significant risks to human health or the environment because risk reduction measures - such as the use of personal protective equipment or maintenance and calibration of pesticide application equipment - are not easily implemented or are not effective.

In SAICM, HHPs are a GPA work area (referred to as “highly toxic pesticides”) with 12 associated activities (23-30; 114-117). Other SAICM activities (or implementation-related aspects of those activities) are also HHP-related (e.g. establishing general pesticides programmes, reducing the health and environmental risks of pesticides, etc.). HHPs were also highlighted at ICCM3 with some countries proposing a resolution for action on HHPs.⁵

2. Actors Involved in Highly Hazardous Pesticides

Governments – have the overall responsibility for regulating the availability, quality, distribution and use of pesticides in their countries and should ensure the allocation of adequate resources for this; should aim to reduce risks to health and the environment by replacing HHPs with less hazardous alternatives or implementing risk reduction measures; comply with Convention requirements by reporting or applying their regulatory requirements.

Industry – has core responsibility to provide appropriate training, advice, and equipment to vendors and users, to make available alternatives to HHPs, and to collaborate with regulators in applying risk reduction measures where appropriate, in accordance with agreed national or international standards or requirements, in particular the International Code of Conduct on Pesticide Management.

Civil Society/NGOs/Farmers groups – engage in awareness raising and information sharing, produce and disseminate educational materials to extension services, agricultural and public health advisory services, farmers and farmers' organizations, pest control operators, public health workers and other entities providing advice on pesticide management. They also support users in identifying alternatives to HHPs and monitoring and reporting adverse impacts of HHPs on health and the environment.

IOMC participating organizations (POs) – support actions related to HHPs by convening expert groups to provide technical and policy guidance, support projects to empower regulators to take action on HHPs and pesticides more generally, provide training and promote access to information and tools, and suggest/promote alternatives to HHPs.

⁵ The resolution was ultimately not adopted because delegates did not feel sufficiently prepared to debate the issue and take decisions, but there was broad support for the issue and it was mentioned specifically in the President's Report of the High Level Segment.

3. Outcomes to date

A very broad range of guidance and support materials – including training programmes – has been developed for pesticides, and HHPs more specifically are an increasing focus within SAICM. Some HHPs are also listed under the Stockholm and Rotterdam Conventions, as well as the Montreal Protocol. However, HHPs are still in widespread use, posing significant/severe threats to human health and the environment, and in most developing country situations HHPs cannot be used without risk due to local conditions of use and unavailability of appropriate protective and application equipment (see also section 4).

Of the 12 HHP-related activities listed in the GPA, IOMC POs are contributing to all of them – see Annex 1. Other specific outcomes from the IOMC contributing to management of HHPs include (some of which are not directly mentioned in the GPA):

- **IOMC Toolbox for Decision Making in Chemicals Management**
Includes a module on pesticide management schemes (with a toolkit to support evaluation of pesticide for registration purposes under development).
- **The International Code of Conduct on Pesticide Management**
The framework on pesticide management for all public and private entities engaged in, or associated with production, regulation and management of pesticides. The updated Code of Conduct on Pesticide Management was approved by the FAO Conference in June 2013, and was recognized by the WHO Executive Board in January 2014. The Code serves as a point of reference in relation to sound pesticide life cycle management practices, in particular for government authorities and the pesticide industry. The Code of Conduct is supported by additional technical guidelines. Specific reference is made to HHPs in the new Code and a technical guideline is under development
- **FAO/WHO Panel of Experts on Pesticide Management (JMPM)**
Advises on matters pertaining to pesticide regulation, management and use, and alerts to new developments, problems or issues that otherwise merit attention. In particular, the JMPM advises FAO and WHO on the implementation of the International Code of Conduct on Pesticides Management. The JMPM combines the FAO Panel of Experts on Pesticide Management and the WHO Panel of Experts on Vector Biology and Control. The JMPM has agreed criteria for defining HHPs.
- **FAO, WHO, and OECD all promote integrated pest (IPM) and integrated vector management (IVM) as a tool to reduce use of HHPs.**
- **WHO Recommended Classification of Pesticides by Hazard**
Lists recommended hazard classifications for pesticides, based mainly on acute risk to human health (adjusted in some cases for severe hazards other than acute oral or dermal toxicity). The GHS Acute Toxicity Hazard Categories are also presented. It is widely used by pesticide regulators in developing countries to distinguish between the more and less hazardous pesticides, and to guide the placing of hazard warnings on pesticide labels.
- **WHO Pesticide Evaluation Scheme ("WHOPES")**
WHOPES promotes and coordinates the testing and evaluation of pesticides for public health through the participation of governments, research institutions, and manufacturers of pesticides and pesticide application equipment. WHOPES recommendations guide the procurement of public health pesticides (including insecticide-treated nets) by governments and aid agencies for vector control.
- **Joint Meeting on Pesticides Residues (JMPR)**
This joint WHO and FAO activity provides advice on acceptable levels of pesticide residues in food. Toxicological data is reviewed to establish health-based guidance values for pesticides. Pesticides residue data is reviewed to determine Maximum Residue Levels (MRLs). These outputs form the basis of Codex MRLs which are fundamental to international trade in food and agricultural commodities.
- **Joint Meeting on Pesticides Specifications (JMPS)**
Recommends technical specifications for pesticides that are used in regulatory processes to determine the quality of pesticides and ensure that traded products are the same as those registered; specifications also facilitate registration of 'equivalent' products from different manufacturers using the 'equivalence procedure'. Appropriate use of specifications can also

help to control trade in counterfeit, unregistered, adulterated or otherwise non-compliant pesticides.

- **OECD Working Group on Pesticides (WGP)**
As part of its work on risk reduction, the WGP has established an Expert Group on Integrated Pest Management. Its objectives are to facilitate coordination and information exchange about IPM (especially thanks to the “IPM Hub” hosted on the OECD web site), promote and develop policies in favour of IPM adoption and implementation, develop indicators of IPM adoption and impact, and facilitate awareness raising about IPM among the public and food chain operators.
- The **SAICM Quick Start Programme Trust Fund** is funding projects on Reducing Risks of Highly Hazardous Pesticides (HHPs) in 2 countries, with international support provided by **FAO**.

4. Gaps remaining and implications for the 2020 goal

- 1) Some countries still lack an effective regulatory system for pesticides, and this needs to be urgently addressed if such a system is to be in place by 2020.
- 2) Limited regulatory and enforcement capacity means that HHPs continue to be available, widely used and may also be inappropriately used (e.g. on crops for which they are not permitted, at higher doses or frequencies of application than permitted, etc.).
- 3) Poor awareness among users about the hazards and risks of HHP use results in continued exposure and additional or cumulative adverse impacts on health and environment.
- 4) Awareness of alternatives to HHPs may still be low, especially at local levels (e.g. farms) where such alternatives may not be available. The role of private sector producers, importers, distributors and vendors in phasing out HHPs and making viable alternatives available is crucial.
- 5) Weak implementation of the International Code of Conduct on Pesticide Management in many countries and by some key stakeholders, such as pesticide vendors and users.
- 6) Participation of the agriculture sector in the SAICM process has been relatively limited to date, while in many developing countries, agriculture is a (if not the) major user of chemicals.
- 7) How can better management and reduction in HHPs be more clearly linked to the 2020 goal? Should clear targets be set in relation to identification, regulation, and reductions in use of HHPs?
- 8) Economic factors can encourage continued and expanded use of HHPs because they are cheaper, sometimes subsidized or even distributed without cost, or leak without authorization between sectors (e.g. public health to agriculture, cotton to vegetables, etc.). Such factors need to be reviewed to discourage HHP use.
- 9) Absence of or very limited capacity to monitor the health and environmental impacts of pesticides. For example, few developing countries have active poison control centres, incident reporting mechanisms for pesticide poisonings or any environmental monitoring of pesticide movements and impacts. As a result, the extent of pesticide poisoning world-wide is largely unknown.
- 10) The use of pesticides for suicide and self-harm remains a significant public health problem in many regions, and this is excluded from the scope of the Rotterdam Convention because it is classified as “intentional misuse”. This limitation does not apply to the Code of Conduct or to SAICM.

Possible options for addressing gaps

- a) National pesticide regulators should identify potential HHPs in use in their countries and consider options for their elimination, reduction, restriction, replacement or implementation of effective risk mitigation measures, taking into account the work undertaken in existing MEAs such as the Stockholm Convention, Rotterdam Convention and the Montreal Protocol.
- b) The private sector should act to replace HHPs in their portfolios with less hazardous products that serve equivalent purposes. This action should be accompanied by information and education programmes for vendors and users.

- c) Assist countries to set up regulatory schemes for pesticides, both with tools (e.g. FAO Pesticide Registration Toolkit) and support (technical and possibly financial), with an emphasis on regional collaboration for sharing resources, experience, and information.
- d) Governments and civil society should increase awareness among pesticide users and consumers about the risks of HHPs and should promote the use of alternatives.
- e) Sustainable approaches to pest management in agriculture, public health and other sectors, that are based on ecological principles and judicious use of low risk interventions should be promoted as a mechanism to both reduce reliance on HHPs and improve the environmental, economic and social sustainability of relevant practices.
- f) Collect and make available information on alternatives for HHPs, both non-chemical and reduced risk pesticides, and share experiences among countries.
- g) Collaborate with donors and development agencies in countries and sub-regions that wish to act to reduce risks from HHPs with the aim of preparing, implementing and enforcing action plans and search for alternatives.
- h) Further promote the use of alternative pest management strategies and, in case they are not available, promote research for development of alternative strategies.
- i) Increase engagement of the agriculture sector in the SAICM process.
- j) Further develop the pesticides management module in the IOMC Toolbox (expected during 2014-15).
- k) Take action against sub-standard pesticides, and against illegal cross-border trade which undermines other interventions.
- l) Take into account “access to means” suicide prevention measures when developing systems and policies for safe management of pesticides.

5. Selected IOMC Resources:

- International Code of Conduct on Pesticide Management: <http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/code/en/>
- Technical Guidelines for the implementation of the International Code of Conduct on Pesticide Management: <http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/code/list-guide-new/en/>
- WHO Recommended Classification of Pesticides by Hazard (2009): http://www.who.int/ipcs/publications/pesticides_hazard_2009.pdf?ua=1
- WHO, Exposure to highly hazardous pesticides: A major public health concern (2010): http://www.who.int/ipcs/features/hazardous_pesticides.pdf?ua=1
- WHO, Guidelines for procuring public health pesticides (2012): http://whqlibdoc.who.int/publications/2012/9789241503426_eng.pdf?ua=1
- A pesticide management scheme is included in IOMC Toolbox, see <http://iomctoolbox.oecd.org/>
- FAO, Comparison between the activities of the SAICM Global Plan of Action and the International Code of Conduct on the Distribution and Use of Pesticides: http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/ComparisonSAICMCode.pdf
- Globally Harmonized System of Classification and Labelling (GHS): http://www.unece.org/trans/danger/publi/ghs/ghs_rev05/05files_e.html
- OECD IPM Hub: <http://www.oecd.org/chemicalsafety/integrated-pest-management/>

Annex 1: HHP activities in SAICM GPA

Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects	IOMC Remarks on Implementation
23. Encourage full implementation of the FAO International Code of Conduct on the Distribution and Use of Pesticides.	National Governments IOMC (FAO) Industry (CropLife International) NGOs	2006–2010	The number of countries that have adopted the FAO International Code of Conduct on the Distribution and Use of Pesticides has increased. Implementation strategies for the FAO International Code of Conduct are developed and implemented in all countries.	FAO awareness-raising on the Code of Conduct Life-cycle approach to pesticide management at the national level	Awareness raising and promotion of the FAO/WHO Code of Conduct; surveys on effective implementation of the Code.
24. Give appropriate priority to pest and pesticide management in national sustainable development strategies and poverty reduction papers to enable access to relevant technical and financial assistance, including appropriate technology.	National Governments Agriculture industry (CropLife International) IOMC (FAO) Trade unions, NGOs	2006–2010	National sustainable development strategies and poverty reduction papers have incorporated pest and pesticide management as a priority component, thus enabling access to relevant technical and financial assistance in all countries.	National financial resources Model framework	Policy guidance; FAO Country Planning Frameworks including sustainable pest and pesticide management; support in resource mobilization.
25. Base national decisions on highly toxic pesticides on an evaluation of their intrinsic hazards and anticipated local exposure to them.	National Governments IOMC (FAO)	2006–2010	Hazard evaluations of all highly toxic pesticides are undertaken in all countries. Exposure assessments are undertaken under local conditions in all countries.	National financial resources Methodology Need to take into account common conditions of use and the need to reduce risks	FAO Criteria for Highly Hazardous Pesticides defined. Pesticide registration toolkit in IOMC Toolbox. Pilot projects on identification of HHPs and Risk Reduction Measures at country level.
26. Prioritize the procurement of least hazardous pest control measures and use best practices to avoid excessive or inappropriate supplies of chemicals.	National Governments Agriculture industry (CropLife International) Trade unions IOMC (FAO)	2006–2010	National and industrial procurement policies include the purchase of the least hazardous pest control measures in all countries. Use of best available techniques is given high priority in all countries.	Procurement policies Best available techniques	Promoting IPM; providing pesticide stock management tools; supporting risk reduction strategies for pesticide management.

Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects	IOMC Remarks on Implementation
27. Promote development and use of reduced-risk pesticides and substitution for highly toxic pesticides as well as effective and non-chemical alternative means of pest control.	Agriculture industry (CropLife International) IOMC (FAO) National Governments Trade unions Farmer organizations NGOs	2011–2015	Use of highly toxic pesticides is reduced in all countries. Use of non-chemical control measures is promoted in all countries. Use of reduced-risk pesticides is promoted in all countries.	Alternatives available. Local experience in use of pesticides Sensitization of users of pesticides Non-chemical control methods	FAO projects implemented to support regulatory action on Highly Hazardous Pesticides; guidance on procurement aimed at reduced risk control strategies.
28. Distinguish programmes that have achieved cost effective, significant and sustainable risk reductions from those which have not and incorporate evaluation mechanisms and measures of progress in future programmes.	IOMC (UNEP, FAO, WHO, OECD, UNDP, World Bank)	2006–2010	Programmes that have achieved significant and sustainable risk reductions are documented and disseminated.	OECD risk reduction programmes in the use of pesticides	Web and journal publication of FAO project results.
29. Promote integrated pest and integrated vector management.	IOMC (UNEP, FAO, WHO, OECD, UNDP, World Bank) National Governments Trade unions NGOs	2006–2010	Integrated pest and integrated vector management are practised in all countries and are included in national agricultural and health strategies.	Model legislation Agricultural extension services Training institutions and material	Core business through FAO corporate policy for sustainable intensification of crop production. OECD activities on promotion and development of policies in favour of IPM adoption. WHO IVM programmes for public health pesticides.
30. Encourage industry to extend product stewardship and to withdraw voluntarily highly toxic pesticides which are hazardous and cannot be used safely under prevalent conditions.	National Governments IOMC (UNEP, FAO, WHO, UNIDO, OECD, UNDP, World Bank) Trade unions Industry (CropLife International)	2006–2010	Voluntary product stewardship initiatives are introduced in all countries. Voluntary withdrawals of highly toxic chemicals are undertaken. Presence of highly toxic chemicals on the market is reduced.	Industry initiatives	Stakeholder engagement in development of policy and guidance (JMPPM, JMPS, JMPPR).

Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects	IOMC Remarks on Implementation
114. Improve access to and use of information on pesticides, particularly highly toxic pesticides, and promote alternative safer pest control measures through networks such as academia.	Rotterdam Convention Secretariat IOMC (UNEP, ILO, FAO, WHO, OECD, UNDP, World Bank) Montreal Protocol NGOs Trade unions/labour Industry Stockholm Convention Secretariat Academia	2006–2010	Information on pesticides, particularly highly toxic pesticides, and alternative safer pest control measures is available to all stakeholders.	Rotterdam Convention Stockholm Convention Databases	WHO Classification of Pesticides by Hazard updated 2009. FAO/WHO Joint Meeting on Pesticide Management generating advice for countries.
115. Encourage and facilitate exchange of information, technology and expertise within and among countries by both the public and private sectors for risk reduction and mitigation.	National Governments IOMC (UNEP, FAO, OECD)	2006–2015	Systems for exchange of information, technology and expertise within and among countries by both the public and private sectors for risk reduction and mitigation are established in all countries.	Infrastructure	UNEP Chemicals Information Exchange Network (CIEN)
116. Facilitate access to research results related to alternative pest control (both chemical and non-chemical) and crop protection measures by pesticide users, those exposed to pesticides and extension services.	National Governments IOMC (UNEP, FAO) Industry Trade unions NGOs	2006–2015	Research results related to alternative pest control (both chemical and non-chemical) and crop protection measures by pesticide users, those exposed to pesticides and extension services are accessible to stakeholders.	System to exchange information	FAO Subregional country groupings for harmonization of pesticide registration; education programmes; information exchange networks. OECD IPM Hub.
117. Evaluate the efficacy of pesticide risk reduction programmes and alternative pest control methods currently implemented and planned by international organizations, Governments, the pesticide, agriculture and trade sectors and other stakeholders.	National Governments Industry IOMC (UNEP, ILO, FAO, WHO, OECD, UNDP, World Bank) NGOs	2006–2015	Mechanisms to evaluate the efficacy of pesticide risk reduction programmes and alternative pest control methods are put in place.	OECD risk reduction programmes Availability of methodologies	FAO Farmer field school IPM programmes recording effectiveness of sustainable production methods.



INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS

A cooperative agreement among FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, World Bank and OECD

IOMC Key Issue Paper #4

Implementing the SAICM GPA: Mainstreaming of Sound Management of Chemicals

August 2014

1. Background

For the sound management of chemicals (SMC) to be given higher priority and moved closer to the center of national decision making, it needs to be integrated into the development planning priorities and processes of developing countries and countries with economies in transition (CEITs). This process - which is often referred to as *mainstreaming* - builds on, but is not limited to, coordination between the many agencies and stakeholders involved in chemicals management.

In SAICM, mainstreaming of SMC is a GPA activity (#225), referred to in the OPS (Overarching Policy Strategy), and is the third strategic priority of the SAICM Quick Start Programme. A number of other SAICM activities (or implementation-related aspects of those activities) are also related to mainstreaming or strengthening of legal infrastructures (e.g. enhancing each country's legal and institutional framework for implementing chemical safety).

2. Actors Involved in Mainstreaming

Governments – need to include sound management of chemicals in their national and sectoral development policies and budgeting, and provide a legislative basis and formalized mechanism for exchange of information among sectoral ministries both for chemicals management at national level, as well as for international agreements. Such a framework supports assessments, issue identification, priority setting, planning and implementation, monitoring and ultimately national planning, development, and financing.

Industry and private sector – can greatly influence particular economic sectors, such as mining, tourism, agriculture, energy generation, among many others, while a country's national development plan or strategy includes targets and development objectives closely related to such economic sectors. Therefore industry and the private sector need to be a driving force and ally in the mainstreaming of SMC priorities linked to those sectors.

Civil Society/NGOs – can play an important role, in particular, with respect to development of legislation, awareness-raising and outreach strategies, as well as in monitoring and training exercises at community and local levels. In turn, such efforts contribute to community empowerment and support for national compliance and enforcement efforts.

IOMC participating organizations (POs) – support mainstreaming-related initiatives with specific programmes and promoting access to information and tools that assist with the mainstreaming of sound chemicals management. Some POs also participate in the development of United Nations Development Assistance Frameworks in developing countries.

3. Outcomes to date

Significant progress has been made to promote the concept (and understanding) of mainstreaming in the SAICM context, to develop supporting tools and materials, as well as begin implementation of mainstreaming efforts through country-based projects. However, broad based (e.g. multi-sectoral) and global implementation of the mainstreaming of sound chemicals management at the national level remains at a relatively early stage.

Of the mainstreaming activities listed in the SAICM GPA, IOMC POs are contributing to all of them – see Annex 1. Perhaps the most specific programme to assist with mainstreaming in the context of SAICM is the **UNDP-UNEP Partnership Initiative for the Integration of Sound Management of Chemicals (SMC) into Development Planning Processes**, which aims to promote and assist the integration of selected SMC priorities into national development planning decision-making processes of developing countries. This Partnership has supported:

- with funding from the *SAICM Quick Start Programme Trust Fund (QSPTF)*, pilot projects in 15 countries were supported in order to test the mainstreaming approach. An analysis of the achievements of these pilot projects is underway and will be available at the end of 2014.
- four regional workshops involving participants from 22 developing countries to exchange views on the mainstreaming of sound management of chemicals into national development plans.
- development of a range of guidance and support materials.

Other specific outcomes and guidance from the IOMC contributing to mainstreaming efforts include (some of which are not directly mentioned in the GPA):

- **UNDP Technical Guide for Integrating the Sound Management of Chemicals in MDG-Based Policies & Plans**
Aims to help developing countries to recognize and assess opportunities for incorporating SMC into national development policies and planning in order to achieve the MDGs and other national development goals.
- **UNEP Guidance on the Development of Legal and Institutional Infrastructures and Sustainable Financing Options for the Sound Management of Chemicals**
Aims to help the design of comprehensive and coherent legal frameworks and related institutional arrangements for life-cycle management of chemicals, including sustainable financing options.
- **UNEP-WHO Health and Environment Strategic Alliance**
Promotes and facilitates coordinated action in developing countries to reduce environmental threats to human health in support of sustainable development objectives.
- **UNEP Global Chemicals Outlook**
Mobilizes support and commitment from governments, private sector, civil society, academia and scientific societies toward a comprehensive, coherent and complementary policy approach to chemicals.
- **UNEP Costs of Inaction Initiative**
Provides an economic business case for increasing investments in Sound Management of Chemicals for sustainable development, by providing a more complete picture of the environmental and health costs of chemicals mismanagement.
- Mainstreaming has also been identified as one of three complementary and interlinked components of an **integrated approach for financing chemicals** and the Governing Council of UNEP has in its decision 27/12 of February 2013 invited countries to apply an integrated approach in their efforts to mobilize and manage financial resources for sound management of chemicals and wastes.

Lessons to date from mainstreaming efforts suggest that:

- Mainstreaming might not be achieved rapidly. The timing of mainstreaming activities and support is an important success factor in the taking up of SMC priorities in national planning strategy documents and budgets.
- Mainstreaming requires that the sectoral ministries at the outset establish a cooperation and buy-in of ministries of planning and finance to include key SMC priorities (e.g. POPs, pesticides in agriculture more broadly, mining contaminants, etc.) in future development plans and programmes.
- Improved economic and financial content of SMC policy proposals and initiatives are vital to justify access to limited national financial resources and to encourage international donor assistance.
- Mainstreaming should transform the types of technical assistance that are needed to enhance capacities for the sound management of chemicals in developing countries and CEITs.
- Undertaking cost-benefit analysis, as well as political, legal, and institutional analysis, regarding the advantages of addressing a chemicals priority versus not addressing such a

priority is an important awareness-raising tool for decision makers and finance ministries to allow SMC priorities to be mainstreamed, in particular in light of many competing development priorities.

4. Gaps remaining and implications for the 2020 goal

The Dubai Declaration of SAICM explicitly links chemicals management with broader sustainable development issues:

“the sound management of chemicals is essential if we are to achieve sustainable development, including the eradication of poverty and disease, the improvement of human health and the environment and the elevation of the standard of living in countries at all levels of development.”

However, experience to date suggests there remain a number of important gaps in achieving that vision in relation to mainstreaming:

1. Because mainstreaming brings about new perspectives on the relationships between chemicals management and vital development priorities, such as alleviating the conditions of poverty, public health, and food security, there is a need for broader public education and consultation to build support for and coordinate action, for which many developing countries are not currently adequately equipped. Without this, fully realizing the SAICM 2020 goal may prove challenging.
2. Developing countries often lack adequate capacity and information to identify and analyze chemical management issues of concern within their jurisdictions.
3. Governance institutions and decision making processes in many jurisdictions have limited experience with cross-agency and cross-sectoral dialogue, perhaps especially between chemical management priorities seen from an environmental and human health perspective and the development driven priorities of central finance, treasury, and development planning agencies.
4. It can be difficult to adopt new policy and legislative instruments to control the wide-spread use of chemicals by putting the responsibility on importers and suppliers for ensuring safe placing on the market, as this would be a new policy for many countries; however, at the same time it could form a crucial part of sound chemicals management since it positively affects other areas where chemical safety is a concern.
5. Even when the country has an adequate understanding of its chemical management issues, a relatively new set of skills, experts, and institutional participants are required to analyze the linkages between chemical management issues and the development priorities of the country, including the economic costs of inaction or benefits of action on chemical management priorities.

Possible options for addressing gaps

- a) Provide arguments for sound management of chemicals that can be used to convince political decision makers, parliamentarians, the general public and other stakeholders that sound management of chemicals is necessary to achieve sustainable development.
- b) Continue efforts to engage/convince high-level political officials of the importance of sound chemicals management, including via inclusion in national development planning processes and documents, and how they relate to global goals such as MDGs/SDGs, poverty reduction strategies, etc. Such interventions should be timed when governments and ministries are in the process of shaping their next development agenda and developing accompanying budgets.
- c) Mobilise resources to expand existing programmes to assist more countries with national implementation or facilitate regional dialogues on mainstreaming.
- d) Strengthen outreach to donors in order for them to mainstream sound management of chemicals into their development aid policies.
- e) Strengthen outreach to other sectors (*e.g.* those beyond environment and health, such as agriculture, trade and industry, consumers) to encourage broader implementation of mainstreaming approaches.

- f) Further explore how economic instruments – most particularly administrative cost recovery mechanisms – can serve as one set of policy mechanisms that are beneficial for further exploration of national financing of chemicals management.
- g) Closer involvement and coordination in promoting mainstreaming of sound management of chemicals during the development of the United Nations Development Assistance Frameworks (UNDAFs) for countries.

Selected IOMC Resources:

- UNDP Technical Guide for Integrating the Sound Management of Chemicals in MDG-Based Policies & Plans (2012):
<http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/chemicals-management/integrating-sound-management-of-chemicals-into-mdg-based-development-planning/Integrating%20Sound%20Management%20in%20Chemicals%20Final%20r2.pdf>
- UNEP Guidance on the Development of Legal and Institutional Infrastructures for Sound Management of Chemicals and Measures for Recovering Costs of National Administration (LIRA-Guidance): http://www.unep.org/chemicalsandwaste/Portals/9/Mainstreaming/LIRA-Country%20Workshop/LIRA%20Guidance/LIRA%20Guidance_Test%20version_01.2012.pdf
- UNDP-UNEP Partnership Initiative brochure :
http://www.undp.org/content/undp/en/home/librarypage/environment-energy/chemicals_management/UNDP-UNEP_Partnership_for_Integration_of_SMC_into_Development/
- UNEP Training Resource Manual on the Use of Economic Instruments for Environmental and Natural Resource Management:
<http://www.unep.org/chemicalsandwaste/Portals/9/Mainstreaming/Trainin%20Resource%20Manual.pdf>
- UNEP, “An Analysis of Economic Instruments in Sound Management of Chemicals”:
http://www.unep.org/chemicalsandwaste/Portals/9/Mainstreaming/LIRA-Country%20Workshop/DevEconInstruments/Economic%20Instruments%20_Survey%20analysis_Final_JM120127b.pdf
- WHO/UNEP. Health and Environment: Managing the linkages for Sustainable Development. A toolkit for decision-makers (2008):
http://whqlibdoc.who.int/publications/2008/9789241563727_eng.pdf
- UNEP, Global Chemicals Outlook (2012):
http://www.unep.org/chemicalsandwaste/Portals/9/Mainstreaming/GCO/GCO_SynthesisReport_UNEP.pdf

Annex 1: Mainstreaming activities in SAICM GPA

Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects	IOMC Remarks on Implementation
225. Integrate the sound management of chemicals capacity within ministries involved in supporting chemicals production, use and management.	National Governments Industry Trade unions NGOs IOMC (FAO, UNDP)	2006–2010	Sound management of chemicals is incorporated in ministerial plans and programmes in each country.	Model legislation National policy Cross-sectoral coordinating mechanisms	Good progress through: UNDP-UNEP Mainstreaming of Sound Chemicals Management UNEP LIRA guidance and implementation. Strengthening of regulatory frameworks for priority chemicals (Stockholm, Basel Convention) FAO on Registration and life cycle management of pesticides.