Existing science-policy interfaces for international chemicals and waste issues

1. The secretariat has the honor to provide, in the annex to the present note, the ‘Existing science-policy interfaces for international chemicals and waste issues’ developed by the World Health Organization (WHO), United Nations Environment Programme (UN Environment), Basel, Rotterdam and Stockholm Conventions’ Secretariat, and the Organisation for Economic Cooperation and Development (OECD).

2. The document is presented as received by the secretariat, without formal editing.
Annex

Existing science-policy interfaces for international chemicals and waste issues

5 March 2018

Introduction

During the first meeting of the Intersessional Process for considering SAICM and the sound management of chemicals and waste beyond 2020, there was discussion about the need to create a new science-policy interface for chemicals and waste at the international level. To inform further discussion of this issue, this paper prepared by the World Health Organization (WHO), United Nations Environment (UNEP), Basel, Rotterdam and Stockholm Conventions’ Secretariat, and the Organisation for Economic Cooperation and Development (OECD) provides a brief outline of selected existing fora and mechanisms to provide science advice on chemicals and waste issues and how these interface with the decision-making processes of intergovernmental and international bodies as well as multilateral environmental agreements. This information is meant to supplement SAICM/IP.2/10 Review of existing governance models of potential relevance to the sound management of chemicals and waste, including science-policy interfaces.

This review focusses on the work of the Food and Agriculture Organization (FAO), the World Health Organization (WHO), the FAO/WHO Codex Alimentarius Commission (CAC), the Organisation for Economic Cooperation and Development (OECD), United Nations Environment (UNEP), and the science-policy interfaces of some international instruments that address chemicals and waste. As further detailed below, a variety of fora and mechanisms for the provision of scientific or technical advice exist within these organizations and address a broad array of topics relevant for chemicals.

The Food and Agriculture Organization (FAO)

Overview

The FAO is an intergovernmental organization that focuses on raising levels of nutrition and standards of living, improving agricultural productivity, and improving the lives of rural people. The FAO Constitution sets out the functions of the organization which includes, inter alia, scientific, technological, social and economic research; education and public awareness; improving agricultural production as well as the processing, marketing and distribution of food and agricultural products; and, technical assistance.

The FAO Conference (the Conference) is the supreme decision making body for the organization, supported by a Council (executive organ), regional conferences and various committees. The Conference has 194 Member Nations, two associate members and one member organization, the European Union. Additional commissions, committees, conferences, working parties, panels of experts and consultations may also be established.

The work of the organization is directed by Conference resolutions and decisions and by the Member-elected Director General in accordance with the mandate and programme of work. The organization has diverse outputs including resolutions, decisions, reports, outlooks, guidelines, policies, codes of conduct, statistics, methodologies, and programmes.
Recognizing the importance of sound science in decision making and programme delivery, FAO’s Strategic Framework, includes an objective on “technical quality, knowledge and services”. A 2015 evaluation of this objective found that FAO has guidance and mechanisms to ensure the quality of technical content, including the FAO Publishing Policy which requires information products undergo sound technical review, including external peer review, and receive quality assurance by a divisional/departmental review group. The evaluation also concluded that end-users and experts have a positive opinion of the quality of FAO databases and publications. The FAO also has a “Statistics Accountability Framework” with the Chief Statistician being responsible for coordinating the statistical work of FAO and guaranteeing the quality of FAO data.

Relevance for chemicals management

The scope of FAO includes the use of agricultural chemicals and their residues on or in food or agricultural products, as well as food additives.

The FAO/WHO International Code of Conduct on Pesticide management (the Code of Conduct) is a voluntary framework to guide government regulators, the private sector, civil society, and other stakeholders on best practices in managing pesticides throughout their lifecycle. The Code of Conduct is supported by technical guidelines developed by the FAO/WHO Joint Meeting on Pesticide Management (JMPM).

- The JMPM advises FAO and WHO on the implementation of the Code of Conduct and on new developments, problems or issues deserving of attention pertaining to pesticide regulation and management. Its members are drawn from the FAO Panel of Experts on Pesticide Management and the WHO Panel of Experts on Vector Biology and Control.

The Codex Alimentarius Commission is another joint WHO/FAO science-policy interface discussed later in this document. As well FAO is jointly responsible with UNEP for the Secretariat for the Rotterdam Convention which is also discussed later in this paper.

The World Health Organization (WHO)

Overview

The World Health Organization is an intergovernmental organization with the objective of the attainment by all peoples of the highest possible level of health. WHO is the directing and co-ordinating authority on international health work and is composed of a governing body, the World Health Assembly, and the WHO Secretariat which includes headquarters, regional and country offices. The Secretariat is largely a technical organization that employs experts to carry out the various functions of the organization as set out in the WHO Constitution. This includes inter alia delivering programmes, undertaking research, collecting data, building capacity, and developing technical reports, guidelines, methodologies, regulations, policies, and statistics.

The World Health Assembly (WHA) includes 194 Member States and is the supreme decision-making body for WHO. The WHA’s main function is to determine the policies of the Organization. It also appoints the Director-General, supervises the financial policies of the Organization, and approves the proposed programme budget. It is supported by an Executive Board, the Governing Bodies Secretariat, as well as the WHO Secretariat. Expert advisory panels and committees may also be established as well as other collaborative mechanisms.
The interface between science and policy occurs throughout WHO. For example, when an item is added to the WHA agenda, the Secretariat is required to prepare a factual report to support the WHA discussion. WHA may then request the Secretariat to undertake further work on an issue as an outcome of the discussion. The Secretariat may also identify an area requiring further study and prepare a technical report that then influences policy decisions within the WHA, in individual Member States and in other fora.

WHO has strict policies in place to govern how it carries out this work to ensure scientific integrity of the outputs and to support evidence based policies and decision-making, for example:
- Code of conduct for responsible research
- Code of ethics and professional conduct
- Regulations for expert advisory panels and committees
- Regulations for study and scientific groups, collaborating institutions, and other mechanisms of collaboration
- Publishing policies and clearance procedures for publications
- Handbook for guideline development

A 2016 evaluation of WHO publications determined that WHO is a credible organization and that health professionals throughout the world look to it for science-based guidance and advice.

**Relevance for chemicals management**

WHO’s International Programme on Chemical Safety (IPCS) resides within WHO’s Public Health, Environmental and Social Determinants of Health which works on a broad range of environmental health issues, including air pollution, climate change, water and sanitation, children’s environmental health, and occupational health, as well as chemical safety.

IPCS focuses on establishing the evidence base for, and reducing the risks and burden of disease from, chemical exposure; this includes work on risk and health impact assessment of priority chemicals; WHO norms, including guidelines and harmonized methodologies; promoting establishment and strengthening of poisons centres; chemical emergency response; convening and contributing to global strategic alliances to address chemical risks; promoting health in development and implementation of international chemical policies, and capacity building.

Examples of WHO science-policy interfaces relevant for chemicals include:

- **Global Burden of Disease Estimates**: In resolution WHA69.4 *The role of the health sector in the Strategic Approach to International Chemicals Management towards the 2020 goal and beyond*, Member States used the Secretariat’s estimates of the burden of disease attributable to chemicals to support the need for a greater emphasis on sound chemicals management in the health sector. A key outcome of WHA69.4 is the *Road map to enhance health sector engagement in the Strategic Approach to International Chemicals Management towards the 2020 goal and beyond* that was approved by the Health Assembly in May 2017. WHO burden of disease estimates are also used as a reference by Member States and others to support their own policies or actions.

- **WHO Chemical Risk Assessment Network** is a collaborative expert network with an overall goal to improve chemical risk assessment globally through facilitating sustainable interaction between institutions on chemical risk assessment issues and activities. The scope of the Network is the risks to human health associated with exposure to chemicals through all pathways and routes of
exposure, including in environmental media (air, water, soil) and food, through use of consumer products, in occupational settings, etc.

The Network comprises primarily government and public health institutions, WHO Collaborating Centres and Professional Societies. Decisions on projects are made by consensus and may lead to WHO guidelines, guidance or expert reports. Collaborative activities of the Network are pursued in accordance with WHO processes for the type of activity, e.g. WHO guideline, capacity-building activity, etc.

- **WHO guidelines** are recommendations to Member States and the health sector in general. Guidelines may be adopted under national laws or otherwise adopted by users. The development of guidelines may be triggered by requests from Member States, WHO country offices, external experts or other stakeholders.

  WHO Guidelines can vary greatly in focus and scope; relevant examples include:
  - WHO Guidelines for Drinking Water Quality
  - WHO Guidelines for Air Quality
  - Ad hoc guidelines on specific issues, such as clinical management of lead poisoning (in development)

  WHO’s Handbook for guideline development outlines the process that must be used which includes the engagement of experts (appointed as per WHO rules), external peer review (technical experts, end-users, persons affected by the guideline, other stakeholders etc), as well as a final detailed report including systematic evidence reviews in accordance with international standards.

- **WHO technical publications** are developed by WHO technical experts or expert working groups in response to an identified need, such as an emerging issue or information gap. Technical publications vary greatly in focus and scope, however, in general available evidence is reviewed and used to describe the extent of the issue, including sources of exposure and health impacts, identify any data gaps, if applicable, and, based on this, make recommendations for how to mitigate these risks. Recent examples of relevant technical publications include:
  - Recycling used lead-acid batteries: health considerations (2017)
  - Don’t pollute my future! The impact of the environment on children’s health (2017)
  - Public health impact of chemicals: knowns and unknowns (2016)
  - International Health Regulations (2005) and chemical events (2015)

The development of technical publications on specific issues provides a relatively efficient avenue for WHO to provide information to policy makers to enable informed decision-making.

**FAO/WHO Codex Alimentarius Commission**

**Overview**

The FAO/WHO Codex Alimentarius Commission (CAC) is the UN body charged with protecting the health of consumers and ensuring fair practices in food trade through the development of a broad range of voluntary standards, guidelines and codes of practice under the Joint FAO/WHO Food Standards Programme. While national adoption of the standards is voluntary, they are used as a reference in trade agreements and dispute resolution. CAC currently has 188 members and 240 observer organisations -
168 international nongovernmental organisations representing producers, industry and civil society, 16 United Nations agencies and programmes and 56 intergovernmental organisations.

Relevance for chemicals management
Pesticides, food additives, naturally occurring toxicants and other chemicals relevant for food safety are included within the purview of CAC. Expert scientific advice to inform CAC standard making is provided by two independent joint FAO/WHO expert committees, as follows:

- **The Joint Expert Committee on Food Additives** (JECFA) evaluates the safety of food additives, contaminants, naturally occurring toxicants and residues of veterinary drugs in food. JECFA performs risk assessments and provides advice to FAO, WHO and the member countries of both organizations, as well as to the Codex Alimentarius Commission (CAC).

- **Joint Meeting on Pesticide Residues** (in food) (JMPR) reviews residues and analytical aspects of pesticides, estimates the maximum residue levels, reviews toxicological data and estimates acceptable daily intakes (ADIs) for humans of the pesticides under consideration.

Both committees follow established guidelines in carrying out their assessments. The science-policy interface occurs in the CAC’s general committees and ad hoc task forces where policy alternatives are considered in consultation with all interested parties and in light of the expert scientific advice provided by the above committees and along with other relevant factors. It is these committees and task forces that are responsible for developing global standards.

An additional benefit of the Codex Alimentarius is that it enables all countries to strengthen their food control systems, including those that may not have the resources to undertake the risk assessment and develop standards themselves.

Organisation for Economic Development and Cooperation

Overview
The OECD is a consensus-based, Member-driven organization with the mission to promote policies that will improve the economic and social well-being of people around the world. The OECD Council is governing body with 35 Member States plus the European Union. OECD’s work is carried out by about 250 committees, working groups and expert groups supported by the OECD Secretariat.

In its own words: The OECD provides a forum in which governments can work together to share experiences and seek solutions to common problems. We work with governments to understand what drives economic, social and environmental change. We measure productivity and global flows of trade and investment. We analyse and compare data to predict future trends. We set international standards on a wide range of things, from agriculture and tax to the safety of chemicals.

The OECD sees itself as a policy network and aims to advance its legal instruments, standards and norms around the world. To ensure this work is high quality and evidence-based, OECD develops its standards and policies using comparable data, peer reviews, expert committees and structured dialogues. To become an OECD Member, candidate countries must undergo a rigorous accession process, involving assessment of their willingness and ability to implement OECD legal instruments and their alignment with OECD best policies and practices.

Relevance for chemicals management
The OECD’s work on chemical safety is carried out under the Environment, Health and Safety (EHS) Programme which is overseen by the Joint Meeting of the Chemicals and the Working Party on Chemicals, Pesticides and Biotechnology (the Joint Meeting). The EHS programme is centred on a
number of working groups that allow governments to collaborate on issues of mutual interest, and particularly establishing harmonized methods and other guidance related to risk assessment as a way to reduce duplication and facilitate information sharing and cooperative work.

Other topics of mutual interest include the joint OECD/UNEP Global Perfluorinated Chemicals (PFC) Group; supporting development and implementation of PRTR systems in member countries; better understanding the policy drivers that influence decision-making in chemicals management; and, most recently, a new project to support the socio-economic analysis of chemicals through better quantification and monetisation of the negative impacts.

A number of OECD Council Acts are relevant to chemicals management and so, as part of the accession process, candidate countries are assessed on their ability to adhere to these. In this way, OECD’s technical work influences policy around the world and improves chemical safety globally. An important example of this interface is the OECD Test Guidelines Programme, described below:

- **The OECD Test Guidelines Programme** is managed by the OECD Working Group of National Coordinators of the Test Guidelines Programme (WNT). The OECD Test Guidelines are a collection of about 160 internationally agreed testing methods used by governments, industry and independent laboratories to identify and characterise the potential hazards of chemicals.

  OECD Council Decision on Mutual Acceptance of Data (MAD) requires OECD Member countries to accept data generated in accordance with OECD Test Guidelines and Principles of Good Laboratory Practice (GLP) by other member country. A related Council Decision-Recommendation on Compliance with GLP - establishes procedures for monitoring GLP compliance. A later Council Decision allows for non-OECD countries to take part in this system.

  The mutual acceptance of data can only be achieved if all stakeholders are convinced of the scientific robustness and regulatory fit-for-purpose of the test methods, individually and also as a system. To achieve this status, a rigorous process of development, validation and review has been agreed by member countries and implemented by the OECD. This process ensures that methods can be transferred and trusted across laboratories to generate reliable chemical safety data to inform regulatory decisions taken by authorities.

  The OECD Test Guidelines Programme also needs to keep up with the pace of science and rapidly evolving techniques, with animal welfare and ethical considerations to animal testing, while developing and maintaining test methods that respond to regulatory needs.

  A broad network of Expert Groups, maintained by the countries themselves, are regularly consulted to provide input into technical documents under development. These groups represent expertise from academia, scientific societies, regulatory agencies, industry, contract laboratories, animal welfare organisations and environmental NGOs. Topical science-oriented advisory groups (e.g. Endocrine Disrupters Testing and Assessment, Molecular Screening and Toxicogenomics) also provide input to ensure that standardised methodologies reflect current science and knowledge.

  In this way the OECD’s Test Guidelines Programme influences global chemical safety by promoting high standards in testing and laboratory practice and facilitating access to quality data.

Further, in response to the 2008 OECD Council resolution on Implementation of the Strategic Approach to International Chemicals Management (SAICM), the Joint Meeting has made SAICM implementation
an integral part of its programme. This has included making its outputs as accessible, relevant and useful as possible to non-Members and other interested stakeholders, and distributing them widely and free of charge.

United Nations Environment Programme (UN Environment)

Overview:

UNEP’s assigned role within the UN is to be the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system and serves as an authoritative advocate for the global environment. UNEP’s mandate includes inter alia:

- analysing the state of the global environment, assessing trends, providing policy advice, early warning information, and promoting international cooperation and action;
- further developing international environmental law;
- advancing implementation of agreed international norms and policies, environmental principles and international agreements;
- strengthening its role in the coordination of environmental activities within the United Nations, as well as an Implementing Agency of the Global Environment Facility; and,
- promoting greater awareness and facilitating effective cooperation among all sectors of society and actors, and serving as an effective link between the scientific community and policy makers at the national and international levels.
- providing policy and advisory services in key areas of institution-building to Governments and other relevant institutions.

In fulfilling these functions, UNEP’s work is guided by five principles to respond to environmental challenges: universal in application, results-based management, synergy through strategic partnerships, regional presence and greater integration of normative frameworks. Through strategic partnerships, UN Environment catalyzes transformative change, leverages impact in the environmental dimension of sustainable development and contributes to the social and economic dimensions of sustainable development.

UNEP is governed by the United Nations Environment Assembly (UNEA) which is composed of 193 Member States. The work of UNEP is directed by UNEA resolutions and decisions, as well as by the Executive Director (elected by the UN General Assembly) in accordance with the mandate and programme of work. UNEA may establish sessional or intersessional committees, working parties and subsidiary organs as may be necessary for the effective discharge of its functions.

Relevance for chemicals management

UNEP’s Chemicals, Waste and Air Quality sub-programme aims to promote sound management of chemicals and waste and improving air quality for a better environment and improved human health. This includes: promoting approaches that demonstrate the economic, environmental and health advantages of sound chemicals management; playing a leading role in developing and supporting international chemicals and waste-related agreements; spearheading global alliances that bring together business, governments and civil society; working with national governments to help them develop regulatory frameworks and other policy instruments on chemicals and waste; and serving as a global clearinghouse for relevant scientific and technical knowledge.

Examples of UNEP science-policy interfaces relevant for chemicals include:
• The **Second Global Chemicals Outlook (GCO-II)** was called for by UNEA resolution 2/7 and requested to be completed by the end of 2018. GCOII will cover a range of topics, including: the global context, trends, developments, and emerging policy issues; topics of relevance until and beyond 2020 such as hazard assessment, risk assessment, risk management, and alternatives assessment; the enabling environment, policies and governance, such as research and innovations, new business models, and economic incentives; and, options for implementation towards relevant sustainable development goals (SDGs).

GCO-II will build on knowledge and expertise generated by recognised institutions and scientific bodies, including government bodies, intergovernmental organizations and nongovernmental organizations. Whenever possible, it will use existing, peer-reviewed literature and publications and also draw on insights and lessons learned from international initiatives and multilateral environmental agreements.

Development of GCO-II is guided by a Steering Committee including members from governments, nongovernmental organizations and intergovernmental organizations. Authors and contributors from developing countries, transition economies and developed countries are also engaged to provide scientific input and advice.

CGO-II is expected to provide policy insights to reach relevant SDGs and targets as well as to inform the intersessional process considering the Strategic Approach and the sound management of chemicals and waste beyond 2020. A summary for policy makers will be produced.

• The **Polychlorinated Biphenyls Elimination Network (PEN)** was established by the Conference of the Parties (COP) to the Stockholm Convention in 2009 with the goals of phasing out the use of PCB in equipment by 2025 and ensuring elimination of PCBs by 2028. PEN was transferred from the Secretariat of the Stockholm Convention to UNEP in 2011.

PEN is a multi-stakeholder mechanism that promotes and encourages the environmentally sound management (ESM) of Polychlorinated Biphenyls (PCBs) in accordance with the Basel Convention technical guidelines and seeks to promote exchange of information and implementation of coordinated activities between all sectors. PEN catalyses new activities including targeted assistance and the development of guidance materials, as needed.

PEN operates through its Advisory Committee, Thematic Groups therein, and a Secretariat provided by UNEP. Membership is open to governments, intergovernmental organizations, donors, PCB holders, non-governmental organizations, industry, experts/academia, and business sectors relevant to polychlorinated biphenyls (PCB). The Networks has as to June 2017, 435 members.

Under the heading of ‘PCB – The Forgotten Legacy’, PEN has developed new and updated existing guidance documents, prepared information on PCB open application and its relevance and developed an awareness-raising strategy to put PCB back on the international agenda.

• **Global Alliance for the Development and Deployment of Products, Methods and Strategies as Alternatives to DDT.** It was established by the Conference of the Parties (COP) to the Stockholm Convention on 2009 at its 4th meeting. It was transferred from the Secretariat of the Stockholm Convention to UN Environment in 2011.
The Global Alliance is a global multi-stakeholder mechanism that promotes the development and deployment of alternative products, methods and strategies to DDT for disease vector control. The Global Alliance is governed by an Alliance Assembly and a Steering Committee it implements it strategy through thematic groups while being supported by a small Coordinating Team.

The Global Alliance undertakes a number of activities within the context of the Road Map for the Development of Alternatives to DDT. The Road Map provides a thematic guide and sketch the steps that are needed for the development and deployment of alternatives to DDT for the purpose of disease vector control to Parties to the Stockholm Convention and other global stakeholders.

- **Endocrine Disruptors Chemicals.** In May 2014, UN Environment established an Advisory Group to provide strategic and policy advice on approaches related to the implementation of UN Environment’s activities concerning environmental exposure and impact of Endocrine Disrupting Chemicals (EDCs). Members of the Advisory Group were appointed by the members of the SAICM bureau (governments, major groups and other stakeholders including NGO, academia, and industry). Individual experts were also invited to become members on the basis of expertise, previous work, and special interest on EDCs.

  The Advisory Group members are expected to: a) Provide advice on strategies and approaches for UN Environment’s work on Endocrine Disrupting Chemicals, focusing on environmental exposure and impact; b) Provide guidance on overarching policies and issues while promoting synergy and collaboration across topics; c) Share information about recent advances in science and implications to policy related to EDCs.

- **Chemical in Product (CiP) Programme** is a global initiative aimed at managing chemicals in products to ultimately reduce the risk to humans and the environment from these chemicals. In October 2015, the fourth International Conference on Chemicals Management (ICCM4) welcomed the CiP Programme and recognized access to information on chemicals in products as a global issue. It requires collaboration on a worldwide scale, across stakeholder lines, and through the entire life cycle. All stakeholders should have access to relevant and reliable information to make informed decisions about chemicals in products.

  The CiP Programme serves the overall aim to reduce risks from hazardous chemicals in products. To achieve this, it established three key objectives, which align with government and corporate goals and build on lessons from extensive stakeholder action: a) within supply chains, to know and exchange information on chemicals in products, associated hazards and sound management practices; b) to disclose information of relevance to stakeholders outside the supply chain to enable informed decision-making and actions about chemicals in products; c) to ensure that, through due diligence, information is accurate, current and accessible.

- **Global Mercury Partnership** consists of stakeholders from governments, industry, NGOs, and academia who are dedicated to protecting human health and the environment from the impacts of mercury, and to reducing global environmental releases of mercury. Initiated in 2005 by a decision of the UN Environment Governing Council, the Partnership played an important role in catalyzing global action on mercury and offering information, capacity-building, and awareness-raising in support of international negotiations to establish a legally-binding instrument on mercury.
The overall goal of the UN Environment Global Mercury Partnership is to protect human health and the global environment from the release of mercury and its compounds by minimizing and, where feasible, ultimately eliminating global, anthropogenic mercury releases to air, water and land. The Partnership works closely with stakeholders to assist in the timely ratification and effective implementation of the Minamata convention on Mercury.

The Partnership currently has eight identified priorities for action - or partnership areas - that are reflective of the major source of mercury releases categories.
International instruments that address chemicals and waste

Meeting document SAICM/IP.2/10 already includes an overview of the governance structures of the Basel, Rotterdam, and Stockholm Conventions, the Montreal Protocol and SAICM. This document will therefore focus only on the science-policy interface aspects of these instruments.

- **The Strategic Approach to International Chemicals Management (SAICM)**

  The main science-policy interface of SAICM occurs through the nomination of emerging policy issues. The process for proposing a new emerging issue was established by ICCM2 in 2009 and requires proponents to provide a rationale as to why the issue is considered “emerging”, as well as other information such as the magnitude of the problem, and existing knowledge and information gaps. The Secretariat for SAICM is provided by UNEP.

  Generally, if an item is accepted as a new emerging policy issue (via adoption of a resolution), ICCM looks to the IOMC organizations and Convention Secretariats for leadership on the issues and usually a joint activity is agreed between two or more of these bodies to address the issue. The activities can be quite varied; depending on the nature of the issue, the new activity may involve the creation of a steering group or working group, a work plan, the creation of a report, series of workshop or any combination of these. However, there is no general guidance on how to manage these issues after they have been adopted, rather the practice has been to adopt successive resolutions on most, if not all, issues at each subsequent session of the Conference.

  Listed below are the Emerging Policy Issues (EPIs) and Other Issues of Concern for cooperative action that have been identified by ICCM. The organizations leading global follow-up activities for each issue are indicated in brackets.

  **Emerging Policy Issues**
  - Lead in paint (WHO/UNEP)
  - Chemicals in products (UNEP – provided as example UNEP science-policy interface)
  - Hazardous substances within the life cycle of electrical and electronic products (UNIDO/Basel Convention)
  - Nanotechnology and manufactured nanomaterials (OECD/UNITAR)
  - Endocrine-disrupting chemicals (OECD/WHO/UNEP - provided as example UNEP science-policy interface)
  - Environmentally persistent pharmaceutical pollutants (UNEP/WHO)

  **Other Issues of Concern**
  - Perfluorinated chemicals and the transition to safer alternatives (OECD/UNEP)
  - Highly hazardous pesticides (FAO, noting that WHO is also involved because of its close working relationship with FAO on pesticides)

  Generally these issues link to (i) encouraging legislative actions (lead paint and highly hazardous pesticides); (ii) chemicals in the value chain (chemicals in products and Hazardous substance within the life cycle of electrical and electronic products); (iii) knowledge and information (nanotechnology and manufactured nanomaterials, endocrine-disrupting chemicals, environmentally persistent pharmaceutical pollutants; and perfluorinated chemicals and the transition to safer alternatives.

  To-date, experience in addressing the emerging policy issues in SAICM has demonstrated that these initiatives tend to be most successful when resources are made available and when a suite of tailored activities are mapped to the needs set out by stakeholders. It is important to reflect on the required commitment and ownership to take effective action in the SAICM context, including the
resource requirements, in order to learn from efforts undertaken under the existing emerging policy issues to-date and to encourage all stakeholders to engage in the process from the outset.

- **The Basel, Rotterdam and Stockholm Conventions**

The Basel, Rotterdam and Stockholm Conventions are legally binding instruments that share the common objective of protecting human health and the environment from hazardous chemicals and wastes falling within their respective scopes. Taken together they cover key elements of “cradle-to-grave” management.

Examples of technical committees that influence policy can be found in subsidiary bodies to the conventions as follows:

- The Basel Convention’s **Open-ended Working Group** is broad in scope, including providing advice on issues relating to policy, technical, scientific, legal, institutional, administration, finance, budgetary and other aspects of the implementation of the Convention. As well, the Conference of the Parties establishes expert working groups to develop guidelines on specific waste-related issues, e.g. e-waste, or to address other issues as mandated by the Conference of the Parties. The Secretariat of the Basel Convention is administered by UNEP.

- The Rotterdam Convention’s **Chemical Review Committee**, as provided in Articles 5 and 6, reviews Parties’ notifications of final regulatory action on chemicals and pesticide proposals for listing severely hazardous formulations and makes recommendations to the Conference of the Parties regarding listing these chemicals in Annex III. The Committee operates in accordance with its terms of reference (decision RC-1/6). See also **Handbook of working procedures and policy guidance for the Chemical Review Committee** which outlines working procedures and policy guidance of the CRC. The Secretariat of the Rotterdam Convention is administered jointly by FAO and UNEP.

- The Stockholm Convention’s **Persistent Organic Pollutants Review Committee**, as provided in Article 8, reviews Parties’ proposals for listing new chemicals in Annex A, B and/or C, decides whether the proposed chemical is likely to have POPs characteristics such that global action is warranted, evaluates possible control measures taking into account socio-economic consideration and makes recommendations regarding listing. The Committee also carries out other scientific reviews e.g. assessment of alternatives to listed POPs as mandated by the Conference of the Parties. The Committee operates in accordance with its terms of reference (decision SC-1/7). See also **The Handbook for effective participation in the POPs Review Committee under the Stockholm Convention** which describes membership and working procedures. The Secretariat of the Stockholm Convention is administered by UNEP.

In addition, the Conferences to the Parties of the Basel, Rotterdam and Stockholm (BRS) conventions initiated a programme entitled “From Science to Action” and requested the BRS Secretariat to develop a **road map for further engaging Parties and other stakeholders in an informed dialogue for enhanced science-based action in the implementation of the conventions at the regional and national levels**. Accordingly, a draft road map for science to action is under development with the most recent draft released 30 September 2017. Based on the results of an online survey, the main challenges to science-based action, and thus the main elements for the draft road map to address, are as follows:

(a) Accessibility to scientific and technical information relevant to the conventions, in particular in developing countries and countries with economies in transition;
(b) Availability of scientific and technical information relevant to the conventions in developing countries and countries with economies in transition;
(c) National capacity to review and assess scientific and technical information for decision-making and implementation of the conventions.

Many of the proposed actions to address these challenges relate to enhancing collaboration, networking, capacity building and training.

- **The Montreal Protocol**

The Montreal Protocol on substances that deplete the ozone layer is a Protocol of the Vienna Convention. Its objective is to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.

- **The Scientific Assessment Panel (SAP)** assesses the status of the depletion of the ozone layer and relevant atmospheric science issues. Pursuant to Article 6 of the Montreal Protocol on Substances that Deplete the Ozone Layer, a report is prepared every three or four years by the SAP which consists of hundreds of top scientists from around the world. Any emerging scientific issues of importance are brought to the attention of the Parties by the SAP Co-Chairs for consideration at the Meetings of the Parties. The Secretariat for the Vienna Convention and the Montreal Protocol is hosted by UNEP.

**Conclusions**

The field of chemicals management is highly technical and a variety of fora already exist for the provision of scientific or technical advice on a wide range of issues. In some organizations, science and policy are clearly separated with independent scientific experts submitting advice to the forums where policies discussions occur (e.g. Codex). In other organizations, science is more integrated into all aspects of policy and decision-making with strict standards in place to ensure the evidence base is solid and credible (e.g. WHO).

In recognition of the fact that good policies and decisions require a solid and credible scientific basis, many of the organizations and fora described above have established strict guidelines for choosing experts and rigorous processes to follow in the development of scientific advice. In many cases, these organizations have already successfully bridged the gap between science and policy, at least to the extent possible.

For issues for which a forum does not already exist, there is a great deal of scope within current organizational structures and mandates to create new committees or panels to cover a broad range of chemicals related aspects. The limiting factor as always would be resources.

**Questions for further consideration**

In further considering the issue of the need for a new science-policy interface, stakeholders may want to consider the following questions in light of the information provided in this report:

1. What are the key gaps that are currently not covered by existing forums/organizations? Could the existing bodies be modified to fill these gaps?
2. How would a new forum work with existing specialized agencies/expert bodies? What would be the value-added of such a forum?
3. Where would the funding for a new interface come from?
4. How would scientific integrity of the advice be assured?

5. Science-policy interfaces are complex and evidence alone may not be sufficient, for example when there are divergent viewpoints among stakeholders, and national or local economic and in some cases political drivers can be in play. How can the international community help countries to overcome/change these drivers?