# IPEN Post-OEWG3 Submission

7 June 2019

This submission to saicm.chemicals@un.org is in response to a call for information in preparation for the next meeting of the intersessional process considering SAICM. The call for information includes the following items:

- For follow-up by the co-chairs of the intersessional process, please share your inputs on other mechanisms to support implementation; additional measures to achieve multisectoral engagement; issues of concern; and 'Principles and Approaches' as set out in document (SAICM/OEWG3.3/4).
- For follow-up by the SAICM secretariat, please share your inputs on examples of successful mechanisms for cost recovery and implementation of the polluters pay principle.

## Other mechanisms to support implementation

The draft Co-Chairs' paper (SAICM/OEWG.3/4) notes the possibility of discussing other mechanisms to support implementation including the following:

- Appropriate and effective mechanisms for taking stock of progress;
- Mechanisms for capacity-building;
- A mechanism to update the instrument over time;
- Mechanisms for collaboration and multi-sectoral/multi-stakeholder engagement.

### Text possibility

7. Other mechanisms to support implementation

i. Taking stock of progress

Institutional arrangements to take stock of progress will include a periodic review system facilitated by a secretariat and a regionally balanced working group as decided by the conference. The operation of the periodic review system will include:

a. Coverage of all countries equally including the full involvement of each country with consideration given to its capacity building needs.
b. Preparation of a national implementation report by each country under review.
c. Discussion of the national report on country implementation of the agreement, information from UN agencies, and information from stakeholders.
d. An outcome report prepared by the periodic review working group in cooperation with the secretariat which summarizes the discussion including responses from the country under review along with recommendations for implementation.
e. Review of each country once every three or four years.

ii. Mechanisms for capacity building and technical cooperation

Meaningful and timely capacity-building and technical assistance in support of the actions of developing countries and countries with economies in transition are essential to making substantive improvements in reducing the risks to human health and the environment

caused by the unsound management of chemicals. The conference will develop tangible mechanisms for capacity building and technical cooperation that include the following:

a. Capacity building and technical cooperation needs assessment.
b. Provision of appropriate non-polluting and clean technology to and among developing countries and countries with economies in transition.
c. Coordination of, and access to, information on chemicals and wastes.
d. Personalized or small group assistance on specific issues.

iii. Amendments to the instrument

a. Amendments to this agreement may be proposed by any government stakeholder.
b. Amendments shall be adopted a meeting of the international conference. The text of any proposed amendment shall be communicated to all international conference stakeholders and focal points by the secretariat at least six months before the meeting at which it is proposed for adoption.
c. The government stakeholders shall make every effort to reach agreement on any proposed amendment to this agreement. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the government stakeholders present and voting.

iv. Mechanisms for collaboration and multi-sectoral / multi-stakeholder engagement

Collaboration and multi-sectoral / multi-stakeholder engagement can further implementation of the agreement through cooperative action and information exchange among others. The conference may develop further mechanisms to increase collaboration and multi-sectoral / multi-stakeholder engagement. These may include inter-ministerial arrangements at the national level so that all concerned national departmental and stakeholder interests are represented and all relevant substantive areas are addressed; partnerships consistent with UN guidelines; and sectoral meetings to advance initiatives, particularly those not typically covered by Ministries of Environment. Sectoral meetings may focus on new or existing areas of concern and develop actions for sound chemicals management consistent with the objectives of the agreement.

## Additional considerations

A periodic review system for reporting should be implemented that reports on actions in the National Action Plan and others including comments from stakeholders. An expert panel would review the reports and propose recommendations and countries could come up for review every three years. These reports could form the basis of SAICM2.0 effectiveness evaluation along with assessment of financing, capacity building and other important elements of the agreement.

Capacity-building measures should be expanded to include learning-by-doing approaches in which specific needs of countries can be addressed through more personalized assistance. Common needs could be assessed in smaller regional groups followed by a disciplined planning activity to identify and deliver appropriate expertise consistent with fundamental chemical safety principles, the chemicals conventions, and SAICM.

A mechanism to update the instrument over time should be established to enable adjustment as new information and challenges occur. This is especially important in combination with a timeless vision. Amendment text in existing chemicals conventions could be adapted for this purpose.

For mechanisms for collaboration, particularly with regards to multi-sectoral engagement, please see the next section below.

## Additional measures to achieve multi-sectoral engagement

### Text possibility
Please see above.

### Additional considerations
Sectoral meetings would provide an opportunity to advance initiatives, particularly those that are not typically covered by SAICM global or regional meetings which usually emphasize Ministries of Environment. Two sectors that would benefit from this approach are agriculture and labor.

Sectoral meetings on agriculture could focus on the phase-out of highly hazardous pesticides and their replacement with agroecological alternatives in line with the ICCM4 decision on this topic. Participants could include representatives from Ministries of Agriculture; FAO; WHO; ILO; farmers organizations, international and national companies that manufacture or produce biopesticides or biological controls; international and national organic, agroecology, and biological farming organisations and movements; poison centre representatives; relevant academics; representatives of international and national non-governmental organizations that work on agricultural and environmental health issues; and relevant trade union representatives.

Topics at agriculture-focused meetings of this type could include:
- Sharing knowledge on the availability of safer alternatives to replace highly hazardous pesticides;
- Developing agroecological alternatives to highly hazardous pesticides;
- Developing guidelines with descriptions of simple analytical methods and test kits to identify highly hazardous pesticides;
- Assessing the hazards of substitutes for highly hazardous pesticides.
- Exchanging information on pesticides that meet the criteria for highly hazardous pesticides;
- Exchanging information on the effects and potential effects of highly hazardous pesticides on health and the environment;
- Exchanging information on pathways of exposure to highly hazardous pesticides for children and adults;
- Exchanging information on highly hazardous pesticide use in various countries;
- Exchanging information on national, provincial, State and local regulations, legislation, and policies restricting and prohibiting highly hazardous pesticides in various countries;
- Exchanging information on highly hazardous pesticides that have been or are being phased out in countries;

- Exchanging information on national, provincial, state and local regulations, legislation, and policies prioritizing nonchemical substitution and providing for the implementation of ecosystem-based agriculture;
- Exchanging information on nonchemical alternatives, agroecological practices and ecosystem-based approaches;
- Exchanging information on labeling and certification systems with regard to the presence and concentrations of highly hazardous pesticides in food;
- Exchanging information on methods to make fields safe for work by or presence of pregnant women and children;
- Exchanging information on suggestions for warning labels on food grown with highly hazardous pesticides alerting users to the health risks that could result.
- Encouraging nations to monitor health to estimate the prevalence of highly hazardous pesticides in use and in the environment, food, and/or humans;
- Encouraging nations to conduct monitoring to estimate the prevalence of highly hazardous pesticides in the environment (for example, in water, soil and animals);
- Encouraging nations to conduct market surveys to estimate the prevalence of highly hazardous pesticides in food.
- Building capacity to monitor health to estimate poisonings due to highly hazardous pesticides;
- Building capacity and providing training in nonchemical techniques, agroecological practices, and ecosystem approaches to pest and crop management, including farmer exchanges;
- Building capacity and providing information and knowledge in human and laboratory equipment to facilitate laboratory tests for highly hazardous pesticides
- Building capacity and providing information and knowledge to help officials in a range of ministries to test for highly hazardous pesticides;
- Providing technical expertise in the design and implementation of studies to estimate the levels of highly hazardous pesticides in the environment, food, and/or humans;
- Providing expertise in policy development at the national level on implementing nonchemical techniques and agroecology.
- Discussing and providing technical assistance on steps that could be taken to phase out highly hazardous pesticides worldwide;
- Encouraging the use of financial incentives to support the use of nonchemical alternatives, agroecology and ecosystem approaches to agriculture and public health vector control;
- Developing guidelines for establishing national standards, including those that would regulate and stimulate use of organic agriculture;
- Encouraging nations to require that only crops grown without highly hazardous pesticides be supported with government funds;
- Encouraging nations to require that crops grown with agroecology be given preference for public procurement.

Sectoral meetings on occupational health and safety could focus on new or existing areas of concern such as toxics use reduction and prevention. Participants could include representatives

from Ministries of Labor, ILO, FAO, WHO, Cleaner Production Centres, trade unions, occupational safety and health professionals, occupational physicians, poison centre representatives, occupational and environmental disease advice and support groups, representatives of international and national non-governmental organizations that work on these issues, and relevant industry participants. Sectors could include chemical manufacturing, electronics, mining, textiles, agriculture, construction, public services, health care, and others.

Fundamental principles for sectoral work on occupational safety and health have been outlined by the UN Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes and include the following:

1. States have a duty to protect the human rights of all workers through the prevention of exposure to toxic substances.
2. Business enterprises have a responsibility to prevent occupational exposures to toxic substances.
3. Hazard elimination is paramount in preventing occupational exposures.
4. Workers have the right not to be exposed to toxic substances without their prior informed consent.
5. Duties and responsibilities to prevent the exposure of workers to toxic substances extend beyond borders.
6. States must prevent third parties from distorting scientific evidence or manipulating processes to perpetuate exposure.
7. Protecting workers from exposure to toxic substances protects their families, their communities and the environment.
8. Every worker has the right to know, including to know their rights.
9. Health and safety information about toxic substances must never be confidential.
10. The right to safe and healthy work is inseparable from freedom of association, the right to organize and the right to collective bargaining.
11. Workers, representatives of workers, whistle-blowers and rights defenders must all be protected from reprisal and the threat of reprisal.
12. Governments should criminalize allowing workers to be exposed to substances that are known or should be known to be hazardous.
13. Workers, their families and their communities must have immediate access to an appropriate and effective remedy, which should be available from the time of exposure.

Topics at occupational safety and health meetings of this type could include due diligence with regard to:

- Capacity building and case studies on ILO declarations, guidelines, and core ILO labor conventions (29, 105, 138, 182, 100, 111, 87, and 98) as well as ILO health and safety conventions (C155, C167, C184, C176, C170, C139, and C162).
- Regulations and policies integrating prevention and the hierarchy of controls
- Exchanging information and case studies on toxics use reduction
- Developing best practice national standards on worker right to know regulations and policies
- Developing standards for tracking and disclosing chemicals in manufacturing

- Developing and exchanging restricted substances lists including hazard and toxicological data and scientific statements of concern
- Developing guidelines, standards and exchanging information on pollution prevention measures and techniques
- Exchanging information and building capacity on hazardous chemical reduction and substitution tools
- Exchanging information on bans, restrictions and phase-outs of substances of concern
- Encouraging nations to ensure systems are in place to undertake workplace and health monitoring of workers to identify workplace exposures causing or exacerbating health problems, in consultation with workers and their representatives
- Building capacity for monitoring, recording, reporting and analyzing health data about known or unanticipated health problems associated with chemical usage, including acute and chronic health impacts due to exposures at work
- Providing technical expertise in the design and implementation of studies to estimate the levels chemicals in the working environment
- Developing green purchasing and government procurement guidelines that take working conditions into account
- Standards and laws to prevent occupationally harmful and environmentally unsound technologies from being transferred to other countries
- Protective measures and policies for all forms of precarious or atypical work, including informal workers, undocumented workers, agency workers, subcontract workers, migrant workers, temporary workers and emergency service workers.
- Standards, best practices, and guidelines for training, how to recognize early signs of adverse health impacts, and prevention of exposure
- Policies and laws regarding public disclosure of the identity of chemicals and materials used in production
- Policies, guidelines, and laws to formulate, promote and implement health-based exposure limits for workers that are protective of the most vulnerable
- Guidelines and laws regarding health surveillance and epidemiological assessment of worker health
- Best practices, guidelines and laws on enforcement and oversight of occupational health safety laws and treaties
- Developing and implementing training in occupational health for healthcare providers to enable better recognition and treatment of work-related diseases
- Frameworks and laws to promote active and meaningful participation of workers, community representatives, trade unions and others in the sound management of chemicals
- Best practices, guidelines and laws on just liability and compensation for victims of toxic exposures in the workplace
- Develop and retain exposure registries, to aid determination of chronic health impacts, particularly those like occupational cancers that can have long latency periods. This will also help facilitate the effective health screening for at-risk individuals
- Exploring and implementing measures to ensure preventive measures and assessments to address gender-related factors

- Measures to ensure protections are effective for all sections of the workforce, including cleaners, night shift workers, maintenance workers, lone workers and remote workers.
- Develop systems to assess and address work factors that can exacerbate the risks posed by chemicals, including work at night, synergies with other substances, exposures or environments and other extrinsic factors include fatigue and exposure to heat and cold.
- Conduct periodic reviews of the use of hazardous substances, including the possibilities for eliminating or reducing exposures and a just transition to safer non-chemical work methods and processes
- Take a precautionary approach to the introduction of novel substances at work, or of familiar chemicals in new situations or processes

## Issues of concern

### Carrying forward current emerging policy issues and issues of concern

Current emerging policy issues and and issues of concern should be carried forward into SAICM2.0 so as not to lose momentum on progress and allow for a disciplined decision on their fate. For example, one of the most successful emerging policy issues, elimination of lead paint, still has significant work to do to achieve its goals as only 36% of countries have legally binding controls on lead paints. In addition, the occupation health aspects of the current issues of concern have been largely ignored. A name-change to "issues of concern" for all issues would be appropriate.

### Selection criteria and process

Strategic Objective C should identify, prioritize and address issues of concern. Issues of concern should not be confined only to global issues. For example, an issue that affects an entire region or only developing countries should not be discarded. If this were the case, then elimination of lead paint would have never become an emerging policy issue. Instead, accepting or rejecting an issue based on its relevance regionally or globally should be one factor among others that emerge in discussions on criteria.

Resolution II/4[1] provides modalities for considering emerging policy issues. This procedure has worked well as reflected by the relevance of the current issues of concern.

The modalities include:

- Call for nominations open to all stakeholders
- Submission of initial information
    - Why it is an emerging policy issue; not generally recognized, insufficiently addressed or has significant adverse effects on human health and the environment.
    - Magnitude of the problem and its impact on human health or the environment, taking into account vulnerable subpopulations and any toxicological and exposure data gaps

[1] UNEP (2009) Report of the International Conference on Chemicals Management on the work of its second session, SAICM/ICCM.2/15

    - Extent to which the issue is being addressed by other bodies, particularly at the international level, and how it is related to, complements, or does not duplicate such work
    - Existing knowledge and perceived gaps in understanding about the issue
    - Extent to which the issue is of a cross-cutting nature
    - Information on the anticipated deliverables from action on the issue
- Initial review and publication of submissions
    - Includes Secretariat check against criteria
    - Clustering similar issues in thematic groups
    - Commenting period
    - Opportunity for proponents to revise the nomination
- Prioritization of submissions
    - Possibility of regional prioritization
    - Input from stakeholders compiled by the Secretariat
- Inclusion of emerging policy issues on the provisional agenda of the Conference
    - The Open-ended Working Group proposes a limited number of issues for consideration by the Conference
    - If an issue is nominated but not included on the agenda of the Conference there are other ways to focus attention on it

Past experience indicates that issues of concern are actually implemented to a greater extent when there is at least one leading government or a government – UN agency lead. Every effort should be made to obtain a government lead or leads for an issue.

## Implementation

Progress in implementing emerging policy issues and issues of concern is outlined at each international conference. In addition, the Executive Summary of the SAICM evaluation provides information about progress in implementation.[2] It is clear from these reports that implementation of issues of concern is uneven over time and varies among different issues.

Implementation of issues of concern should be guided by an agreed workplan with milestones and clear deliverables. This method has been employed by the Global Alliance to Eliminate Lead Paint with success.

## Tracking progress

Progress against the milestones in the issue of concern workplan can be tracked in three ways: 1) Through reports on the issue prepared by the lead government for meetings of the international conference, regional meetings, or other relevant occasions; and 2) Through reports by individual governments for periodic review with inputs from relevant stakeholders; and 3) Through periodic review of the issue of concern itself. The latter provides a disciplined, orderly tracking of progress with multi-stakeholder input and recommendations for continued work as a result of the review. After some time, issues of concern may be ended or advanced.

[2] UNEP (2019) Executive Summary (Advance Version) - Independent Evaluation of the Strategic Approach to International Chemicals Management from 2006 – 2015, SAICM/OEWG.3/3

## Ending work on an issue of concern

For a number of years, questions about how to continue or end certain issues of concern have been discussed without resolution. Some issues (electronics and nano) have been included in the Global Plan of Action as part of their implementation. Lead paint elimination has a clear regulatory goal of achieving prohibitions in all countries and that provides a clear signal about when work will be completed.

There are several approaches for ending work on an issue of concern:

1. Stopping after completing major workplan elements
2. Deciding on a time period of work and ending date at the start of an issue.
3. Setting an end date during implementation of an issue.

Stopping after completing major workplan elements: No issue of concern has completed its major workplan elements so far and some do not have clear workplan goals. However, some issues, such as lead paint elimination have clear enough simplified goals that it will be apparent when they are reached (all countries have banned lead paint).

Deciding on a time period of work at the start of an issue: A workplan for a new issue can have a defined time period of work that sets an end date right from the beginning of the issue.

Setting an end date during implementation of an issue: This might occur for several reasons that emerge during the periodic review of the issue: 1) Inadequate implementation due to lack of leadership, funding, participation or other reasons; 2) A change in priority compared to other issues; or 3) Desire to focus efforts on other areas of framework implementation or other issues of concern that are not currently addressed.

## Advancing issues of concern

In some cases, there may be interest in significantly advancing an issue of concern. This may be due to emerging information about harms to human health and the environment; increasing public concern; availability of alternatives or other reasons. Options for advancing issues of concern could include formation of an ad-hoc open-ended working group to develop options and recommendations for global action; significantly expanding the number of countries working on the issue; and broadening the scope of actions among others.

## Process for stopping or advancing an issue of concern

A proposal to stop or advance an issue of concern should be submitted to the Open-ended Working Group by the issue lead government or UN agency for a recommendation to be sent for decision at the international conference. The proposal should reflect consultation with the steering group of the issue (if any) and provide adequate justification for stopping or advancing the issue. The decision will be taken by the international conference.

All issues of concern that end (prematurely or according to schedule) should generate a final report that describes work completed, lessons learned and gaps surrounding implementation. The report should be prepared by the lead country or UN agency with the assistance of steering group (if any) and the Secretariat.

## Principles and approaches

The list should include agreements with high relevance to chemical safety, including regional agreements dealing with key chemical safety principles and fundamental agreements relevant to sustainable food production, safe working conditions, and the right to a safe and healthy environment.

Additional agreements that exemplify key principles include:

- United Nations Declaration on the Rights of Peasants
- International Covenant on Economic, Social and Cultural Rights 1966
- Universal Declaration of Human Rights UDHR 1948
- Escazú Agreement
- ILO Convention No.184
- Aarhus Convention
- Bamako Convention
- Waigani Convention

## Polluter pays principle

Industry involvement is one of three pillars of the Integrated Approach to Financing. It is vaguely defined in the integrated approach but several aspects are noted, including fines, cost recovery measures, and tax rebates as incentives. One objective is to shift government costs of chemicals management to producers and importers that benefit from these services provided by the government. Three key aspects noted in the integrated approach are command and control, economic instruments (such as cost recovery), and voluntary agreements. As noted in the Executive Summary of the SAICM evaluation, *"Industry involvement was envisaged as meaning that industry internalizes the costs of complying with chemicals and waste regulations, with economic instruments (e.g. taxes and subsidies) used to shift the external costs of production, use and disposal of chemicals away from the public sector to the private sector. Industry involvement was also conceived to involve industry transferring cleaner technology and taking innovative steps to 'green' products throughout their life."*[3]

When chemicals are produced, or used in a country, it is an obligation of the government to ensure that the public's health and the environment are not harmed as a result of chemical exposure or chemical accidents. The costs governments incur in fulfilling this obligation are economic externalities that arise as a result of economic decisions by industry to manufacture and to use chemicals. According to the Polluter Pays Principle,[4] and according to sound economic policy, such external costs should not be borne by the general taxpayer, by the general national treasury, or by any other third party. Rather, appropriate economic instruments should be developed that effectively internalize such costs within the relevant industries in ways that do

[3] UNEP (2019) Executive Summary (Advance Version) - Independent Evaluation of the Strategic Approach to International Chemicals Management from 2006 – 2015, SAICM/OEWG.3/3

[4]See Rio Declaration on Environment and Development, Principle 16, adopted by the 1992 United Nations Conference on Environment and Development, http://www.unep.org/Documents/Default.asp?DocumentID=78&ArticleID=1163

not distort international trade and investment. As noted by UNEP, *"The vast majority of human health costs linked to chemicals production, consumption and disposal are not borne by chemicals producers, or shared down the value-chain. Uncompensated harms to human health and the environment are market failures that need correction."*[5]

Internalization of costs within chemical producers through a direct levy provide a contrast with a Pigouvian tax, or a so called "sin tax." The function of a Pigouvian tax is to intentionally raise the price of a commodity or activity that is considered to be harmful, in order to discourage that activity. A direct levy of the industry would neither discourage nor encourage chemical production and use. Rather, its intent would be to generate the funds that governments will need to spend in order to institute robust chemicals management infrastructure, programs, policies, laws, regulations, and their effective dissemination and enforcement.

Finally, note that in addition to a levy to recover costs, consideration should also be given to removal of subsidies that distort markets. For example, the IMF estimates that the fossil fuel industry received USD$5.2 trillion in subsidies in 2017.[6]

### Examples of cost recovery and incentive systems

The accounting firm, KPMG, has developed a green tax index that summarizes economic penalties and incentives for carbon, renewable energy, green vehicles, green buildings, water, material resources and wastes, pollution and ecosystems, and food in more than 35 countries.[7] Some examples include the following:

Brazil: vehicular pollution penalties; tax credit for acquisition of recycled materials in production; solar energy incentive
Chile: pollution tax on power plants of 50 MW or higher; green tax on new vehicles; penalities on water overuse; renewable energy production obligations; carbon tax

Colombia: incentives for renewable energy generation; incentives for green vehicles; new order to create charge for water pollution

India: carbon / climate change taxes and incentives including encouraging substitution of ODS, biogas, and wind energy; depreciation for air pollution control equipment

Russia: carbon tax; incentives for renewable energy; ecological fee for packaging; pollution penalties

South Africa: carbon tax in progress; incentive for renewable energy; plastic bag levy

[5] UNEP (2012) *Global Chemicals Outlook: Towards the sound management of chemicals*, p 118, ISBN 978-92-807-3320-4
[6] Coady D, Parry I, Nghia-Piotr L, Shang B (2019) Global fossil fuel subsidies remain large: An update based on country-level estimates, International Monetary Fund, WP/19/89
[7] KPMG (2017) The KPMG green tax index: An exploration of green tax incentives and penalties, July 2017

## Other examples of mechanisms for cost recovery

These examples include both levies and Pigouvian taxes in no particular order.

### Australia contaminated site cleanup

The State of Victoria can recover reasonable costs when cleaning up a site from the person who caused the pollution, or the occupier of the premises, whether or not they caused the pollution. [8] This can include labor, administrative, and overhead costs.

### Iran pollution tax

Large polluting industries mush pay 1% of their income as green taxes.[9] In 2017, the system generated USD$2.5 billion.[10] However, the money is not earmarked for environmental management.

### Water pollution in Netherlands

The charge is based on biochemical oxygen demand and metal pollution and levied on direct and indirect discharges by the water boards.[11]

### Sulfur tax in Sweden

This tax is levied on diesel fuel and heating oil that exceeds 0.1% sulfur content. [12] A government evaluation showed that the sulfur content of oil decreased by 30% between 1990 and 1992 as a result of the tax.

### US tax on chlorofluorocarbons (CFCs)

The US tax on companies making or importing CFCs which took effect in 1990 is widely credited for the sharp drop in CFC emissions. In fact, during the first year of the tax, emissions dropped by five-fold.[13] The measure imposes taxes on the import, sale or use of ozone depleting chemicals or items made with them.[14]

### US contaminated site cleanup

The US Superfund program addresses cleanup of contaminated sites. It first tries to recover costs from responsible parties including for planning and implementing cleanup, investigation and monitoring, actions to limit site access, contractor costs and annual allocation costs.[15]

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[8] https://www.epa.vic.gov.au/~/media/Publications/1538.pdf

[9] Harchegani MAT, Dahmardeh N (2017) Investigating the effect of the green tax on Iran's health sector: A general equilibrium approach, Iranian Journal of Economic Studies 6: 251-270

[10] https://financialtribune.com/articles/environment/74299/call-for-spending-pollution-tax-on-irans-environment-issues

[11] World Bank (1998) Pollution charges: Lessons from implementation, Pollution prevention and abatement handbook, July 1998

[12] World Bank (1998) Pollution charges: Lessons from implementation, Pollution prevention and abatement handbook, July 1998

[13] https://grist.org/article/pollution-taxes-work/

[14] UN Internal Revenue Service (2007) Ozone depleting chemicals (ODC) excise tax audit techniques guide https://www.irs.gov/pub/irs-mssp/ozone_depleting_chemicals.pdf

[15] https://www.epa.gov/enforcement/superfund-cost-recovery

## A small levy on the chemical industry would produce appropriate levels of funding

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

The global chemical industry had an annual turn-over of approximately USD $5 trillion per year in 2017 and this is expected to double by 2030 (trillion = thousand billion).[16] If, for example, a global cost recovery scheme recovers USD $5 billion annually,[17] the total burden on the chemical producing industry would come to 0.1% of the industry's annual turnover – one cent (USD $.01) for each ten dollars (USD $10.00) in sales.

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

On the other hand, USD $5 billion per year is considerably more than what donor governments would likely make available in grant aid for chemicals management efforts. It is also considerably more than governments of developing and transition countries can mobilize under present conditions.

## Recommendations for implementing the polluter pays principle

UNEP should implement this recommendation from its evaluation[2] of the integrated approach to financing: *"commission studies on market-based instruments for cost internalisation and incentives for sustainable consumption and production, particularly for green chemistry investments."* The UNEP cost internalization report and other relevant materials could be used to initiate a multi-stakeholder process to develop a global cost internalization program within the new framework process, to be finalized by 2025. The study should include input and review by governmental and stakeholder experts and give serious consideration to a global approach.

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

Besides contributing to efficiency and consistency, a global approach may provide other benefits. Some substantial costs to governments for sound chemicals management are associated with chemicals that are not produced in the country and not directly imported. Instead, the chemical

[16]United Nations Environment Programme (2019) Global Chemicals Outlook II: Synthesis report
[17] See http://www.oecdwash.org/DATA/DOCS/env_outlook_chem_industry.pdf

may be present in imported products and released to the environment when the product is used and/or after it has become a waste. Such chemicals may be of substantial volume, and measures to assure they do not harm health and the environment may be costly. However, a purely national cost recovery system would likely be unable to recover these costs.

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

Overall, the key to securing sustainable funding for chemical safety is the internalization of costs within relevant producer industries. This is because the money needed to assure that chemicals are safely managed is, ultimately, the responsibility of chemical producing industries, in line with Rio Principle 16

## Examples of the chemical industry's externalized costs

The harms associated with hazardous chemicals represent costs that are externalized by the industry onto the public and the environment. As noted by UNEP, *"The vast majority of human health costs linked to chemicals production, consumption and disposal are not borne by chemicals producers, or shared down the value-chain. Uncompensated harms to human health and the environment are market failures that need correction."*[18] The magnitude of the costs externalized by the chemical industry is enormous. Conservative estimates of some of these externalized costs include:

- USD$90 billion for health-related pesticide costs in Sub-Saharan Africa from 2005 – 2020. As a means of comparison, the entire 2009 Overseas Development Assistance to the health sector in Africa was US$4.8 billion – a fraction of the health-related costs due to pesticides alone.[19]

- €157 billion as a median annual health cost for diseases associated with endocrine disrupting chemicals in the European Union. The diseases include IQ loss and associated intellectual disability, autism, attention-deficit hyperactivity disorder, childhood obesity, adult obesity, adult diabetes, cryptorchidism, male infertility, and mortality associated with reduced testosterone. The authors noted that this estimate was conservative as it represented only those EDCs with the highest probability of causation and a broader analysis would have produced greater estimates of burden of disease and accompanying costs.[20]

- USD$236 billion annual costs for pollution associated with the production and use of volatile organic compounds. This is an underestimate as it excludes damage to most natural resources as well as water pollution and land use change and waste in non-OECD countries.[21]

[18] UNEP (20122013) Global Chemicals Outlook*:* – Towards the sound management of chemicals, p 118, ISBN: 978-92-807-3320-4, Job Number DTI/1639/GE

[19]UNEP (20122013) Global Chemicals Outlook*:* – Towards the sound management of chemicals, p 99, ISBN: 978-92-807-3320-4, Job Number DTI/1639/GE

[20]Trasande L, Zoeller RT, Hass U, Kortenkamp A, Grandjean P, Myers JP, DiGangi J, Bellanger M, Hauser R, Legler J, Skakkebaek NE, Heindel JJ (2015) *Estimating Burden and Disease Costs of Exposure to Endocrine-Disrupting Chemicals in the European Union*, J ClinEndocrinolMetab 100: 1245 – 1255 doi: 10.1210/jc.2014-4324

[21] UNEP (2013) Costs of inaction on the sound management of chemicals; p 11, Job numbe DTI/1551/G

- USD$977 billion annual costs related to childhood lead exposure in low- and middle-income countries. This figure represents 1.20% of global GDP in 2011. The authors note that the largest burden of lead exposure is now borne by low- and middle-income countries.[22]

None of these figures reflect the full magnitude of human suffering or damage to ecosystems.

[22]Attina TM, Trasande L (2013) *Economic costs of childhood lead exposure in low- and middle-income countries*, Environ Health Perspect 121: 1097-1102 doi: 10.1289/ehp.1206424