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Division of Environmental Health | UCT

POLICY BRIEF

Promoting Domestic Financing of Chemicals and Waste Management:

Focus on Low- and Middle-Income Countries

Elements of Chemicals & Waste Control System

- Legal Framework
- Sustainable Financing
- Data & Information
- Hazard & Risk Assessment
- Risk Reduction
- Enforcement & Compliance
- Risk Communication

Adapted from an illustration by Maja Modén

Executive summary

Financing is the backbone of the sound management of chemicals and waste. Despite this, many national governments, particularly in low- and middle-income countries (LMICs) fall short of setting up sustainable financing systems. Currently, most LMICs do not have sufficient finance (including human resources) to adequately implement what is required for the sound management of chemicals and waste in their respective countries. This policy brief is intended to highlight key issues for LMICs and draw attention to areas where and how sustainable financing could be implemented within chemicals and waste management/control system.

Background

As financing is key to the sound management of chemicals and waste, sustainable financing must be built into relevant national legislation. Financing should include the direct costs related to use, management, enforcement, legislation, regulation and disposal of chemicals and waste. Additionally, it should also include the overall costs to society related to, for example, education/awareness raising, healthcare, clean-up, remediation, hazardous waste handling, economic instruments as risk management instruments, human poisonings, etc.

The United Nations Environment Programme (UNEP), as well as the Global Framework on Chemicals, advocate three approaches to financing chemicals and waste management - that is, 1) *mainstreaming* in national budgets (the focus of this policy brief) and in development assistance plans and other polices, 2) *industry involvement*, and 3) *dedicated external financing* such as the Global Environmental Facility and UNEP's Special Programme.

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What should national finances cover?

Sustainable financing should cover the following elements of a sound chemicals and waste management system:

- Gather data on health and environmental hazards related to chemicals
- Develop and disseminate information to all who may be exposed to chemicals or waste or make policy decisions - in relevant languages and structured for different target audiences
- Develop and enforce legislation - e.g., develop legislation that bans the use and online sales of highly hazardous substances and other chemicals of concern, and ensures compliance with legislation
- Provide structure for the whole value chain from production to waste (e.g., oversee the implementation and sharing of responsibilities among waste handling and site decontamination by producers/importers/traders)
- Research on health and environmental impacts, as well as less-toxic alternatives and alternative processes
- Develop and implement standardised training and awareness-raising of the public and policy makers
- Establish multi-stakeholder committees for effective chemical and waste management, and risk reduction and prevention
- Mainstream chemicals in national budgeting and development plans

Responsibilities

Roles and responsibilities need to be defined in relevant national legislations. For example, it is important for government departments/ministries to develop legislation that places responsibilities on companies to internalise most of the costs of chemical and waste management (**Table 1**).

Table 1: National Government Responsibilites vs Industry

National Government Departments	• **Develop, issue and update legislation/regulations,** for example:
	  ◦ Labelling, bans, restrictions, registration requirements
	  ◦ Prohibit the registration of chemicals that are highly hazardous (e.g., highly hazardous pesticides), CMRs[1], or chemicals banned in other countries
	• **Enforce legislation**
	  ◦ Implement penalties and incentives
	  ◦ Monitor online sales of chemicals
	• **General administration**
	  ◦ Maintain chemical register
	  ◦ Provide free, transparent and publicly available information
	  ◦ Process registration applications
	• **Establish and maintain government structures to manage chemicals and waste**
	  ◦ For example: personal, travel, national data, risk communication, information sharing, office space, laboratory costs, and inspections/inspectors (for all relevant sectors - health, environment, agriculture, labour

Industry (producers and importers)	• Provide **transparent information** relevant to regulating chemicals and waste and for consumer/public safety • **Classify and label chemicals** relevant to legislation • **Gather data** on chemical hazards • **Update information** (e.g., on labels, Safety Data Sheets, chemical registers) as per the time frame referenced within the appropriate legislation • Develop and implement **hazard and/or risk communication strategies** during the phase out period for chemicals • Develop **non-toxic alternatives** • **Report** on legislated **obligations** • **Share** new research **findings** with regulators • Develop **waste-handling systems**

[1] CMR - Carcinogenic, Mutagenic, Toxic to Reproduction

Financing Models

There are different ways that national governments can fund their chemical and waste management work. **Table 2** illustrates examples of different models that can be implemented simultaneously.

Table 2: Models for National Financing

Model Type	Model Details
Tax Based	***Statutory payment*** is determined by law from companies to provide the state and municipalities with income. Examples - corporate income taxes on chemical-containing products (e.g., taxes on pesticides in Mexico – see references); excise tax[2] on ozone-depleting chemicals, vehicles transporting hazardous chemicals and other goods, and activities linked to chemicals; accumulated earnings tax[3] for companies accumulating earnings and profits or environmental taxes (e.g., calculated per weight of hazardous[4] or ozone-depleting chemicals)
Fee Based	• Government ***charges fees*** for providing services to industry (realistic costing of time/salaries/resources needed) - these are ***cost-recovery fees*** for all the services under government responsibilities • Companies importing chemicals into a country, as well as producing, pay an ***annual fee*** (fee defined in legislation and increases annually to account for inflation) – for example, a ***flat-rate fee*** where all companies pay an annual fee dependent on the number, volume, and hazard of the chemical imported • ***Fees per service*** - alternative to annual fee and charged for each service (e.g., inspections, assessments of applications) • ***Fees for authorisation*** (per unit/hour) • ***Fees for inspections of chemicals placed on the market*** (per unit/hour) • ***Fees for import licences***
National Budget Allocation	Allocation of ***state budget*** specifically for chemicals and waste management
Extended Producer Responsibility (EPR) Programmes	***EPR*** shifts the financial responsibility upstream toward the producer (and, in LMICS, the importer) and away from local governments. Incentives can be given to producers/importers for considering health and the environment in the design of products. All costs associated with the life cycle of a product are included in the market price of that product - for example, products containing chemicals (e.g., plastics, electronics, batteries, tyres, packaging). **Figure 1** illustrates the financial benefits of legislating EPR schemes
Incentives	***Tax rebate*** for specified implemented initiatives (e.g., EPR)
Penalties	***High penalties*** for the violation of legislation to both discourage infringement and cover costs (e.g., remediation, poisonings, environmental contamination)

[2] The excise tax rates are as varied as the goods and activities upon which they are levied.
[3] Accumulated taxable income is the excess of taxable income with certain adjustments, including a deduction for regular income taxes over the dividends paid deduction and the accumulated earnings credit.
[4] A government needs to legislate what a taxable substance is based on the type of chemical or class of chemicals.

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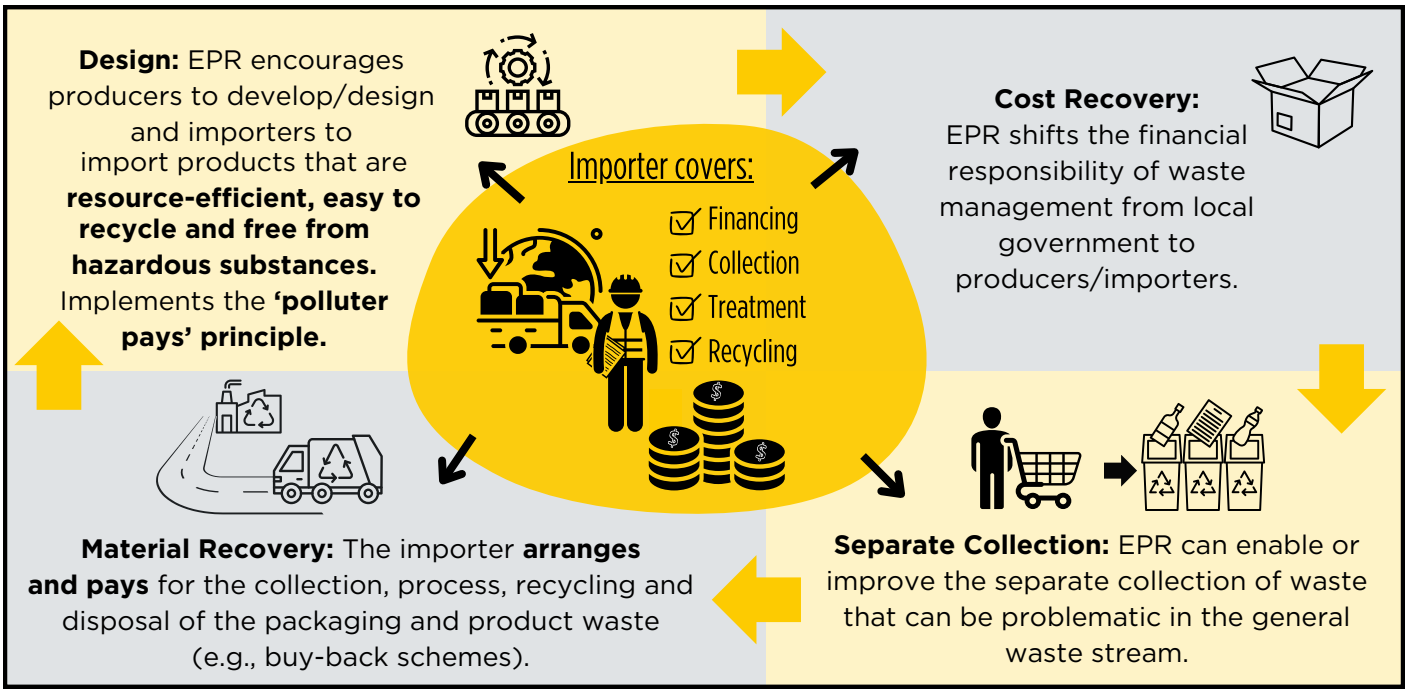
Figure 1: Extended Producer Responsibility (EPR) Benefits



Recommendations

National governments in LMICs **should not** bear any of the costs linked to registering, regulating and enforcing, research, poisoning and environmental contamination surveillance, accident clean ups and waste management. Therefore, national governments **need to legislate** the mechanisms listed in this brief placing the financial responsibility on industry.

National governments should ask for assistance from the UN and other agencies to assist with developing a sound domestic financing system.

Support for Developing Sustainable Financing: Kemi Helpdesk

https://www.kemi.se/en/international-cooperation/support-for-development-of-national-chemicals-control/helpdesk-on-chemicals-control-for-countries

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- **Mexico example in Table 2:**
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  - SAICM. (2020) *Review of cost recovery mechanisms and other economic policy instruments for financing of the sound management of chemicals and waste* (https://saicmknowledge.org/)
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