



FINANCING THE SOUND MANAGEMENT OF CHEMICALS

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FREQUENTLY ASKED QUESTIONS REGARDING THE COORDINATED TAX OR FEE ON BASIC CHEMICALS

- How big is the chemical industry?
- What costs are not paid by the industry?
- What is “chemicals management” and why do we need to raise more money to properly manage chemicals and waste?
- What are some key international agreements on chemicals and wastes?
- How does the financing of international chemicals agreements usually work?
- Is financing for international chemicals agreements sufficient?
- What is the polluter pays principle?
- How would a coordinated tax or fee work?
- Who would apply the tax or fee?
- What are basic chemicals and why should a fee be placed on their production?
- What makes it a production tax or fee?
- Can a coordinated tax or fee generate sufficient financing for the chemicals agenda?
- Where would the collected funds go?
- Why pool resources — why not leave it to each country to tax its own chemicals industry?
- How does a coordinated tax or fee satisfy the polluter pays principle?

- Would there be exemptions based on how the chemicals are produced or used?
- Would the costs of essential products go up?
- Has a coordinated tax or fee ever been tried before?
- Is a coordinated tax or fee on basic chemicals compatible with WTO law?

HOW BIG IS THE CHEMICAL INDUSTRY?

The chemical industry is the **second largest** manufacturing industry in the world. As a result, it is the world's **largest** industrial energy consumer and third largest emitter of carbon dioxide. The industry is currently rapidly expanding to emerging economies in Asia and the Middle East. Chemical industry sales (including pharmaceuticals) totaled **US\$5.7 trillion** in 2017 and this is projected to double by 2030. The industry is also extremely profitable. For example, the US chemical industry reported a **16.3% operating margin** for 2018. In 2017, the global top 50 chemical companies had a median operating profit margin of **12.7%**.

WHAT COSTS ARE NOT PAID BY THE INDUSTRY?

The chemical industry does not bear the true social cost of its products. As **noted** by the United Nations Environment Programme, “Of the tens of thousands of chemicals on the market, only a fraction has been thoroughly evaluated to determine their effects on human health and the environment.” Here are some estimates of costs that the industry does not pay:

- One worker dies every 15 seconds from toxic exposures at work

- The cost of harms due to **pesticide poisoning** in Sub-Saharan Africa outstrips all Overseas Development Assistance to the health sectors in those countries, excluding assistance for HIV/AIDS.
- Estimated annual health costs due to per and poly-fluoroalkyl substances (PFAS) are €2.8 – €4.6 billion in Nordic countries and €52 – €84 billion in the thirty European Economic Area countries.
- A conservative estimate of the median annual health cost for diseases associated with **endocrine disrupting chemicals** only in the European Union is €157 billion.
- Estimated annual costs for pollution associated with the production and use of **volatile organic compounds** are US\$236 billion. This cost is underestimated, as it excludes damage to natural resources and water pollution and land use change and waste in non-OECD countries.
- Annual costs related to **childhood lead exposure** in low- and middle-income countries are estimated to be US\$977 billion. Low- and middle-income countries now bear the largest burden of lead exposure.
- In 2018, WHO estimated the global disease burden attributable to preventable chemical mismanagement to be 1.6 million annual **premature deaths** and 45 million lost Disability-adjusted Life Years (DALYs).

WHAT IS “CHEMICALS MANAGEMENT” AND WHY DO WE NEED TO RAISE MORE MONEY TO PROPERLY MANAGE CHEMICALS AND WASTE?

Chemicals management refers in this context to the systems for testing chemicals for safety, approving new ones, regulating their production and use, and disposing the products that contain them safely, among other things. Currently, chemicals are not being managed properly in any country, resulting in hazardous chemicals being present in our **toys, clothes, electronics, and food**. Increasingly, they can be found in our **own bodies** as well. There are especially concerning gaps in developing and transition countries. This has severe effects for local populations but affects all of us. In addition to global trade, many chemicals travel through the air and water, and chemical releases exacerbate the effects of climate change. Many premature deaths and illnesses as well as huge losses in productivity are directly linked to the mismanagement of chemicals.

WHAT ARE SOME KEY INTERNATIONAL AGREEMENTS ON CHEMICALS AND WASTES?

Key international agreements on chemicals and wastes include:

- **Stockholm Convention:** Protects human health and the environment from a class of chemicals known as **persistent organic pollutants** (POPs) by imposing global bans. These substances are persistent, build up in living

organisms and the food chain, travel long distances and cause harm to human health and ecosystems.

- **Rotterdam Convention:** Regulates the trade of hazardous chemicals and formulations and promotes information sharing on bans or severe restrictions. Includes industrial chemicals, **pesticides** and severely **hazardous pesticide** formulations.
- **Basel Convention:** Regulates the **trade** of hazardous wastes and other wastes, including **plastic wastes**.
- **Minamata Convention:** Addresses human-caused mercury **pollution** by reducing mercury supply and trade, phasing-out or phasing-down certain products and processes that use mercury and controlling mercury emissions and releases
- **Strategic Approach to International Chemicals Management (SAICM):** A global **policy** and strategy adopted by governments and stakeholders to protect human health and ecosystems from the harms caused by exposure to toxic chemical substances.

HOW DOES THE FINANCING OF INTERNATIONAL CHEMICALS AGREEMENTS USUALLY WORK?

Taxpayers in developed countries provide money to their national governments to fund the **Global Environment Facility** (GEF). The GEF provides the **financial mechanism** for the Stockholm Convention and the Minamata Convention which is available to help developing and transition countries meet their obligations under the treaties. In this way, the public pays for sound management of chemicals and wastes in these agreements, not the chemical industry. The Basel Convention, Rotterdam Convention and SAICM do not have financial mechanisms and projects to implement these agreements receive ad-hoc funding from the GEF and special funds.

IS FINANCING FOR INTERNATIONAL CHEMICALS AGREEMENTS SUFFICIENT?

No. The chemicals agenda is severely underfunded. Here are a few examples:

- A financial needs assessment has not been performed for the Rotterdam, Basel, and Minamata Conventions, or SAICM, indicating that the underfunding of the chemical agenda is likely to be much larger than previously estimated.
- The estimate of net funding needs for the Stockholm Convention for the 2018 – 2022 time-period is approximately USD\$4.4 billion (**UNEP/POPS/COP.8/INF/32**). This figure is more than ten times greater than the tentative **allocation** under the 7th replenishment of the Global Environment Facility (GEF).
- Donor governments contributed a total of US\$41 million to the discontinued SAICM **Quick Start Programme**

Trust Fund for a 10-year period from 2006 – 2015. In contrast, climate financing from just the **Green Climate Fund** is US\$5.4 billion for a four-year period.

- The annual shortfall in the SAICM **Secretariat budget** was 43% for six of the ten years between 2006 and 2015 and this affected its ability to deliver on a number of functions.
- The GEF earmarked only US\$13 million in total for **global SAICM implementation** for a four-year period between 2014 – 2018. This was 0.3% of the GEF-6 replenishment.
- At the 4th International Conference on Chemicals Management (ICCM4), more than 100 governments **acknowledged with concern** that, “the scale of resources available from all sources, including through the Quick Start Programme and the Global Environment Facility, are insufficient to achieve the goal of sound management of chemicals in developing countries.”
- The 1st Session of the United Nations Environment Assembly (UNEA 1) **agreed** that for chemicals and waste management, “Sustainable, predictable, adequate and accessible long-term funding at all levels...is a key element, in particular in developing countries and countries with economies in transition.”

WHAT IS THE POLLUTER PAYS PRINCIPLE?

Governments around the world agreed on the polluter pays principle at the Rio Earth Summit in 1992. **Rio Principle 16** states that the polluter should bear the costs associated with pollution and its prevention and control. To operationalize the polluter pays principle, the producers of chemicals should be regarded as the **polluter**. This is because while governments have obligations to adequately protect their public’s health and national environment from harm resulting from chemical exposures and accidents, the costs they incur in fulfilling this obligation arise as a result of the industry’s economic decisions to produce, use and import chemicals. Governments have a right and an obligation to recover these externalized costs by applying the polluter pays principle. The **Independent SAICM Evaluation** reveals that governments clearly understand that operationalizing the polluter pays principle means to “shift the external costs of production, use and disposal of chemicals away from the public sector to the private sector.” A coordinated tax should be used to operationalize the polluter pays principle.

HOW WOULD A COORDINATED TAX OR FEE WORK?

Countries that produce **basic chemicals** will place a very small tax or fee (equivalent to less than 1% of value) on the production of those chemicals. These countries will direct the revenues to a dedicated international fund that will make disbursements to governments and civil society for chemicals management in developing and transition countries.

WHO WOULD APPLY THE TAX OR FEE?

All countries with a **basic chemicals** manufacturing industry physically located within their borders would impose the fee.

WHAT ARE BASIC CHEMICALS AND WHY SHOULD A FEE BE PLACED ON THEIR PRODUCTION?

Basic chemicals are early stage chemicals produced from petroleum, natural gas, and other raw materials. These chemicals represent the **basic building blocks** from which all other chemicals are made. Collecting a fee on the production value of the earliest stage chemicals has several advantages. First, some of the costs will be passed on to manufacturers of later stage chemicals, making this in effect a fee that covers the entire industry, but without the “cascading” problems when multiple stages in a chain of production are taxed (which leads to late stage products bearing a higher tax burden). Second, this effect can be achieved by applying the fee to only a relatively small number of manufacturers, reducing administrative costs. Third, production of these chemicals is substantial, making up over half of all chemicals production, meaning a very low rate can raise large sums of revenue.

WHAT MAKES IT A PRODUCTION TAX OR FEE?

It is a production fee because the fee is collected from manufacturers based on the volume of chemicals they produce. The fee is collected even if those manufacturers do not sell the chemicals. This method of collection is important because in many cases, companies are “vertically integrated,” meaning they could transfer chemicals from one branch to another without a recorded sale. A production fee as opposed to a retail sales tax limits both the number of countries that need to apply it and the number of entities that should pay the fee.

CAN A COORDINATED TAX OR FEE GENERATE SUFFICIENT FINANCING FOR THE CHEMICALS AGENDA?

A fee on the production value of basic chemicals has the potential to raise significant revenue at a very low tax rate. Global **sales of chemicals** totaled between roughly US\$3.3 and US\$4 trillion in 2018 (excluding pharmaceuticals). Of those sales, roughly **\$2.3 trillion** were of basic chemicals, according to the American Chemistry Council (ACC), which defines basic chemicals to include organic and inorganic compounds, certain acids, rare gases, and certain dyes and inks. If fully implemented, therefore, a 0.5% tax or fee on production value of basic chemicals as defined by the ACC could raise US\$11.5 billion annually — roughly eighty-five times the **total annual assistance** currently flowing to the chemicals cluster from the GEF (US\$131 million) and Special Programme (US\$4,703,849) combined. This is the scale of financing required for full and robust implementation of chemicals and waste management in the world’s developing

and transition countries. It is also considerably greater than what donor governments might be expected to supply in grant aid on a continuing and sustainable basis.

WHERE WOULD THE COLLECTED FUNDS GO?

The collected funds would go to a dedicated international fund. This could either be a new fund built for this purpose or an established fund such as the [Special Programme](#), administered by the [United Nations Environment Programme](#).

WHY POOL RESOURCES – WHY NOT LEAVE IT TO EACH COUNTRY TO TAX ITS OWN CHEMICALS INDUSTRY?

There are a number of reasons to pool resources. One is that many developing countries have large chemicals management challenges (including those stemming from e-waste and pesticides) but no substantial domestic chemicals manufacturing industry to tax. Taxing only imports is unlikely to raise sufficient funds and can make those imports prohibitively expensive. Also, if every country acts on its own, countries will be worried about harming what nascent industry they do have, or discouraging manufacturing from moving there. That leads to the last point, which is that chemicals are a global industry. Not only do supply chains stretch around the globe, but “disposal chains” do as well, which results in hazardous chemicals showing up far from their place of manufacture or even sale. To implement the polluter pays principle therefore requires a coordinated tax or fee.

HOW DOES A COORDINATED TAX OR FEE SATISFY THE POLLUTER PAYS PRINCIPLE?

The polluter pays principle says that the polluter should bear the costs of preventing and remedying harms associated with their pollution. In the case of a harmful consumer product, especially one whose release is difficult to control or is difficult to dispose of safely, the manufacturer of that product should be thought of as the primary polluter. Ideally, mechanisms embodying the polluter pays principle lead to harm prevention by causing those entities creating harms to the public to factor the true social costs of their behavior into their decisions. Many of these basic chemicals themselves present management challenges and have associated harms when not managed properly. Moreover, as mentioned, some of the fee can be expected to be passed onto later stage manufacturers, whose products also cause social costs. This tax may lead to decreased use of some basic chemicals in manufacturing processes. It also ensures that manufacturers of a wide range of hazardous chemicals contribute to cleanup and control efforts.

WOULD THERE BE EXEMPTIONS BASED ON HOW THE CHEMICALS ARE PRODUCED OR USED?

No. Hazardous chemicals are hazardous no matter whether they are produced from hydrocarbons or bio-based sources. Further, distinguishing based on use would greatly compli-

cate the administration of the fee and present opportunities for fraud, often in countries without significant resources to devote to tax administration.

WOULD THE COSTS OF ESSENTIAL PRODUCTS GO UP?

It is unlikely that costs of essential products, such as medicine or food, would rise to any significant extent. The large base enables a very low rate (we are proposing a tax or fee of 0.5%). Despite the name, very few “essential products” have completely inelastic demand, meaning that producers should be unable to wholly pass the cost of the fee onto consumers. It should be noted that the industry is highly profitable and can easily afford to bear the entire cost of the fee.

HAS A COORDINATED TAX OR FEE EVER BEEN TRIED BEFORE?

Yes. There are already national and international models of a tax or fee on an industry’s products to pay for ultimate harms associated with those products.

At an international level, the [International Oil Pollution Compensation Funds](#) are funded by a coordinated tax on companies receiving marine shipments of crude and heavy-fuel oil. The money from this tax goes to clean up and compensate for damage from oil spills. There is also the example of the [international air travel solidarity tax](#), imposed by 9 countries, which funds purchases of medicine in developing countries.

The US imposed a [tax](#) very similar to the one proposed from 1980 to 1995. The tax applied initially to 42 chemical feedstocks whenever manufactured in or imported to the US, and [later](#) added certain imports produced from those chemicals. In the last four years before those taxes expired, they raised an average of US\$331 million per year.

IS A COORDINATED TAX OR FEE ON BASIC CHEMICALS COMPATIBLE WITH WTO LAW?

Yes. WTO law governs the treatment of imports and exports. However, because this is a fee countries would place only on their domestic manufacturers (and there would be no rebates or other forms of special treatment for exports), it is a purely domestic policy and not subject to those rules.