Guidance on national chemicals control

Sustainable financing of institutional capacity for chemicals control
The Swedish Chemicals Agency is a supervisory authority under the Government. We work in Sweden, the EU, and internationally to develop legislation and other incentives to promote good health and an improved environment. We monitor compliance with applicable rules on chemical products, pesticides, and substances in articles and carry out inspections. We review and authorise pesticides before they can be used. Our environmental quality objective is A Non-toxic Environment.
The establishment of sustainable financing for the management of chemicals, including institutional capacity, is one of the cornerstones for the sound management of chemicals and for achieving sustainable development.

This guidance developed by the Swedish Chemicals Agency is a complement to the UN Environment guidance on the development of legal and institutional infrastructures and measures for recovering the costs of national administration for sound chemicals management, often referred to as the LIRA Guidance1. It supplements LIRA Guidance with further guidance related to long-term financing of the national institutional capacity for sound chemicals management, primarily with regard to the control of chemicals placed on the market. The guidance document is one in a series published in 2018 covering different aspects of chemical management such as risk assessment, risk management, product registration, and enforcement.

The Swedish Chemicals Agency has developed the guidance document with the financial assistance of the Swedish International Development Cooperation Agency, Sida. The views herein shall not be taken to reflect the official opinion of Sida.

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1 https://www.unenvironment.org/resources/report/lira-guidance
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Summary

The establishment of sustainable financing of national legal frameworks and related institutional capacity for the management of chemicals is one of the cornerstones for the sound management of chemicals and for achieving sustainable development.

When considering financing, it is important to keep in mind the positive effects of developing and maintaining sound chemical management nationally. Countries and the population normally gain a lot more from sound management than the costs to establish and maintain it.

In line with the key principles in the LIRA Guidance the general recommendations in this guidance are that the conditions for chemicals management, in particular placing chemicals on the market, must be defined in legislation.

Companies that receive their revenues from producing, importing, and/or selling chemicals have important responsibilities. A requirement on companies to carry out most of the main activities to ensure safe handling of chemicals can significantly lower the costs for national administration.

However, national administrations have an important role to play in developing new legislation and ensuring compliance with the legislation. There must be sustainable financing for the tasks carried out by the national administrations, and these are defined here as sources of financing that are reliable, secure, and predictable.

Different models for financing are presented in the report. The models range from completely tax-based to partly fee-based financing. The costs of governmental work to organise efficient control of chemicals are due to the activities of producers and importers of chemicals. It could, therefore, be a solution to apply special fees on these companies on a yearly basis or to charge fees for specific services. The pros and cons with different options are discussed in the document.
1 Introduction and scope

In order to achieve the 2020 goal and many of the Sustainable Development Goals adopted by the UN in 2015, the establishment of national legal frameworks and related institutional infrastructure for the sound management of chemicals is essential. There are numerous chemicals produced, sold, and used in every society, and these need to be handled as safely as possible in order to avoid harm to humans and the environment and achieve sustainable development of the country. The positive effects for society from improved chemicals management is important in achieving sustainable production and consumption and in ending poverty and hunger. As reported by UN Environment in the Costs of Inaction report\(^2\), the costs due to the mismanagement of chemicals can be very substantial.

The aim of this guidance document is to assist governments in developing countries to establish sustainable financing of the institutional capacity and other tasks directly linked to the management of chemicals placed on the market. It is a supplement to the LIRA\(^3\) guidance on the development of legal and institutional infrastructures and measures for recovering the costs associated with the national administration for sound chemicals management. The guidance identifies key issues that need government attention when ensuring financing of the national administration of chemicals management, and it discusses pros and cons of various ways of financing chemicals management.

The scope of this guidance does not include financing of the overall costs to society that chemicals can cause, for example, cost related to healthcare, clean-up, remediation, hazardous waste handling, etc, and it does not consider economic instruments as risk-management instruments.

\(^2\)https://www.unenvironment.org/resources/report/costs-inaction-initiative
Box A. Some important international goals and strategies

2020 goal
In 2002, at the UN World Summit on Sustainable Development, governments and all other relevant organisations agreed to renew the commitment, as advanced in Agenda 21, to sound management of chemicals throughout their life cycle and of hazardous wastes for sustainable development as well as for the protection of human health and the environment, inter alia, “aiming to achieve, by 2020, that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment”.

Strategic Approach to International Chemicals Management, SAICM
SAICM is a multiple stakeholder and multi sectorial policy framework adopted in 2006 by the first International Conference on Chemicals Management, ICCM, to achieve the 2020 goal.

Overall Orientation and Guidance for achieving the 2020 Goal, OOG
In order to define sound management of chemicals in concrete elements, the fourth ICCM in 2015 as part of SAICM endorsed the OOG, with six core activity areas; and 11 basic elements recognised as critical to attaining sound management of chemicals and waste. These include legal and institutional frameworks, industry participation, and defined responsibilities across the product life cycle, and cost recovery policies and systems.

Sustainable Development Goals, SDGs
Seventeen Sustainable Development Goals and 169 associated targets were adopted by, the Heads of State and Government and High Representatives, meeting at the United Nations Headquarters in 2015. Target 12.4 in principle reflects the 2020-goal: “By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment”.

2 What is to be financed?
There are links between a systematic approach to managing chemicals’ placement on the market and economic growth. All countries wish, for economic and other reasons, to take part in the increasing international trade in chemicals and other products. The prospects of doing so successfully are increasingly dependent on how well government institutions and national trade and industry perform, both in relation to chemicals risk management in general and to the implementation of international agreements on chemicals in particular. Regulatory gaps and unclear legislation might be an obstacle for companies and for the desired national development.

The main tasks involved in establishing and maintaining a system for controlling chemicals that are placed on the market apply to all countries. These tasks are presented in the LiRA Guidance.

6 https://www.un.org/sustainabledevelopment/
This guidance discusses ways to provide stable and secure financing for a chemicals management system as it is presented in LIRA Guidance. Such a system should, in principal, include the following elements:

- Gathering data on the health and environmental properties of the chemicals.
- Dissemination of this information.
- Limiting the use of chemicals of high concern.
- Providing for the safe use of chemicals in general.

Closely connected to this is the development of necessary legal requirements and related enforcement activities.

Each country has the primary responsibility for its own economic, environmental, and social development and thus also for its chemicals management. To be accepted as a trustworthy nation in international trade, countries need to have a proper chemical management system in place. For some countries, appropriate international assistance to supplement domestic resources can be important. However, external funding can only pay for activities to get started or other short-term activities. In order to get secure long-term functioning and stable chemicals management in a country, other means of financing need to be found.

The internationally developed ‘Integrated approach to long term funding of the sound management of chemicals and waste’, see Box B below, recognizes that the inclusion of chemicals management in national budgets, defined responsibilities of industry, and dedicated external financing are mutually reinforcing for the long-term financing.

**Box B. Integrated approach to long-term funding**

The three components of an integrated approach to financing sound management of chemicals and waste adopted by the UNEP Governing Council in its decision 27/12 in 2013 are:

- **mainstreaming** in national budgets and development assistance plans,
- **industry involvement**, including designating the responsibilities of industry and the wider business community, and
- **dedicated external financing** such as support from the Global Environmental Facility

These components are mutually reinforcing and are all crucial for the financing of the sound management of chemicals and waste at all levels (as stated in Annex I of Resolution 1/5 of UNEA1).

In chapters 3 and 4, two essential aspects of financing of chemicals management are described. Chapter 3 deals with the importance of allocating roles and responsibilities for the tasks involved between trade and industry on the one hand and the government on the other. If this is not defined in legislation, by default all of the responsibilities will normally fall on the government. Chapter 4 deals with different ways of providing for stable financing of the national administration. Different options for that financing, and combinations thereof, are presented and analysed. Chapter 5 discusses arguments for involving trade and industry in the financing. Finally, chapter 6 describes issues to consider when designing a financing system.
2.1 Defined roles and responsibilities

National legislation is necessary to provide for the sound management of chemicals, and such legislation will need to define a number of tasks that need to be carried out. It is, therefore, important that the legislation clarify the division of responsibilities between trade and industry on the one hand and the national administration on the other. When allocating responsibilities, the costs associated with the tasks will also be allocated. The first measure to manage the costs related to chemicals management is, therefore, to ensure a clear division of roles and responsibilities for the tasks involved.

It is reasonable that the main responsibilities should lie with the chemical producers and importers for the risks that could emerge from the chemicals they produce and import. It is, therefore, important to develop legislation that places responsibilities on companies in order to internalize most of the costs of chemicals management.

If an allocation of roles and responsibilities is not defined in legislation, by default all the responsibilities will often fall on the government. With the widespread use of the many chemicals that exist in most countries, the government will most certainly not have sufficient resources for all of these tasks. A requirement placed on industry to carry out most of the main activities significantly lowers the costs for national administration. This then makes sustainable and long-term funding of the national administration much more possible.

2.2 How to divide the activities and related costs

It is reasonable that producers and importers (primary suppliers) should bear the main responsibilities for a number of tasks when it comes to the chemicals they place on the market in a country.

As shown in the table below the national administration should be responsible for developing new legislation and continuously updating existing legislation, and this should be decided according to the legislative procedures in the country. Such legislation might include elements such as legal requirements on classification and labelling, bans and restrictions on certain hazardous substances, and authorizations of chemicals of high concern e.g. pesticides. Another central task for the administration is to perform inspections to ensure compliance with the legislation. There are also a number of other tasks that administrations normally carry out because they support these main tasks. Among these are keeping registries of producers and importers, dialogue/consultation with industry, cooperation between different parts of the administration (between ministries and/or authorities), regional and international cooperation, and providing information to various stakeholders, including the general public.
Table 1. Examples of division of chemicals management activities relating to placement of chemicals on the market between producers/importers, downstream users, and national administrations.

<table>
<thead>
<tr>
<th>Companies producing or importing chemicals</th>
<th>Downstream users of chemicals</th>
<th>National administration related to chemicals placed on the market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting production and/or importation to comply with bans and restrictions</td>
<td>Adjusting the use and production to comply with bans and restrictions</td>
<td>Obtaining and keeping information on chemical producers/importers</td>
</tr>
<tr>
<td>Gathering data on hazards</td>
<td>Taking into account the received and otherwise obtained information on hazards and safety measures of supplied chemicals when deciding which chemicals to use and how they will be used</td>
<td>Requiring information on chemicals produced/used in the country.</td>
</tr>
<tr>
<td>Pre-marketing testing (if data are not already available)</td>
<td>Transferring safety information in the supply chain for the whole life cycle of the chemical, including labelling and safety data sheets for chemical mixtures</td>
<td>Prioritising substances and assessing information from industry and other sources of hazards and risks of those substances</td>
</tr>
<tr>
<td>Assess risks and take measures to reduce risk if necessary</td>
<td>Reporting according to existing obligations, for example, to the national chemicals registry or notifying the production or import</td>
<td>Issuing regulations and guidelines, including: a) legal requirements on classification and labelling b) bans and restrictions on certain hazardous substances c) authorizations of chemicals of high concern, for example pesticides</td>
</tr>
<tr>
<td>Updating the information base when required</td>
<td></td>
<td>Enforcing the legal requirements and taking measures to ensure compliance</td>
</tr>
<tr>
<td>Classifying and labelling according to relevant legislation, preferably GHS</td>
<td></td>
<td>Having dialogue with industry</td>
</tr>
<tr>
<td>Transferring of safety information in the supply chain, including labelling and safety data sheets</td>
<td></td>
<td>Providing general information to various stakeholders in society</td>
</tr>
<tr>
<td>Reporting according to existing obligations, for example, to the national chemicals registry or notifying the production or import</td>
<td></td>
<td>Participating in international and regional communication and co-operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Co-operation with other authorities</td>
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<tr>
<td></td>
<td></td>
<td>Charging fees for services provided</td>
</tr>
</tbody>
</table>

The costs for governments to establish the necessary institutional infrastructure are related to the need for adequate capacity in both numbers and qualifications of personnel. Other examples of costs include costs for office space, travel, information, and communication technology as well as costs related to inspections, including laboratory verification of chemical contents.
For producers, importers, and down-stream users, the costs are related to the responsibilities assigned to them in legislation. Normally this includes gathering and assessing data and disseminating information, including labelling and safety data sheets (SDS), reporting, etc. The costs for testing and assessing chemicals regarding hazardous properties will vary. For importers, the way of getting this information will mainly be by requiring it from their suppliers in other countries. The use of already existing data is of importance for all companies, see chapter 3.2.

Users of chemicals have a responsibility to take into account information they obtain on hazards and safety measures in their decisions on which chemicals to use and how they are used.

The costs for producers, importers, and down-stream users are also closely related to the need for adequate capacity in terms of the numbers and qualifications of personnel. Other examples of costs include costs for office space, travel costs, information, and communication technology as well as costs related to gathering of data, including laboratory tests, when adequate data do not already exist. The services needed might partly be purchased from consultants, which might reduce the costs, especially for small and medium-sized companies.

### 2.3 Efficiency within the national administration

A basic requirement before considering any form of financing is to ensure that the national administration works efficiently and thus will not generate unnecessary needs for financing. A good rule is that the financing should be kept as low as possible while still covering the costs of the services performed by national administrations, and the services to which they are attached should demonstrate clear ‘value-for-money’. The administration should have as efficient processes as possible to minimize the administrative burden.

Various ways of solving different functions should be considered, especially regarding functions and experts that are only needed occasionally. By concentrating responsibility or by improving co-ordination and co-operation, it can be possible to obtain more cost-efficient use of resources and thereby to reduce the need for new resources. Regional co-operation with other countries could be considered to reduce the national work and related costs.

Sometimes it is more cost efficient for the national administration to hire experts in special fields, for example, to perform risk assessments on pesticides and industrial chemicals, rather than to have all experts in-house.

Another example is laboratory capacity. To run laboratories at authorities for chemicals management and/or inspections is burdensome in terms of equipment and personnel. The national authorities should establish a system to facilitate access to suitable reference laboratories capable of performing analysis of chemical contents for verification purposes. This is how most countries structure their need for laboratory services. To invest in permanent laboratory capacity might lead to substantially increased costs for chemicals management, and many governments therefore use certified laboratories from the private sector. The establishment of a joint laboratory infrastructure with countries sharing similar chemicals issues can also be a cost-effective and efficient way to build access to analytical capacity in a region.

### 2.4 The use of existing data reduces costs

The use of readily available existing data reduces costs mainly for producers and importers, but also for the national administration. Testing of chemicals for toxicological and eco-toxicological effects is labour-intensive and expensive. The eco-toxicological and toxicological properties
of a substance are the same in all countries, and thus testing of the same substance in several countries should be avoided. Mutual Acceptance of Data (MAD) for assessment purposes in chemicals management minimises costs for laboratory tests.

Countries should allow for the use of data obtained and evaluations performed in other jurisdictions as long as they comply with certain standards, for example guidelines from the Organisation for Economic Co-operation and Development (OECD). Data on the properties of various chemicals are today shared openly and efficiently through various platforms, for example, the OECD eChemPortal7.

In particular, it is of value for countries to make full use of the Globally Harmonized System on classification and labelling of chemicals (GHS) and related safety data sheets and to implement legal requirements on classification and labelling in as similar way as possible to what other countries and regions do. Hazard assessments, classification, and labelling can preferably be done in accordance with the GHS because GHS is internationally recognized and is the most commonly used standard. It ensures international harmonization of classification and labelling of all types of chemicals. Thereby, it facilitates international trade of chemical substances and products/articles containing chemicals and access to markets in other countries.

Further, risk assessments from countries with relatively similar conditions can be used as a starting point. Information on the national use and the exposure can then be used together with this information in order to refine the assessments to meet the conditions in the specific country. This can significantly reduce the cost for risk assessments. See guidance on risk assessment8 for more information.

Box C. Important systems for generating, sharing and disseminating information on properties of chemicals

OECD test guidelines are a tool for assessing the potential effects of chemicals on human health and the environment. Accepted internationally as standard methods for safety testing, the guidelines are used by professionals in industry, academia, and government involved in the testing and assessment of chemicals (industrial chemicals, pesticides, personal care products, etc.).

GLP – The OECD principles of Good Laboratory Practice ensure the generation of high quality and reliable test data related to the safety of industrial chemical substances and preparations. The principles have been created in the context of harmonising testing procedures for the Mutual Acceptance of Data (MAD).

MAD – The Mutual Acceptance of Data is the OECD Council Decision in 1981 stating that test data generated in any member country in accordance with OECD test guidelines and GLP shall be accepted in other member countries for assessment purposes and other uses relating to the protection of human health and the environment.

GHS – The Globally Harmonized System of classification and labelling of chemicals is an internationally agreed-upon system established in 2002. It was designed to replace the standards used in different countries by using consistent criteria on a global level.

CLP – Classification, Labelling and Packaging of substances and mixtures. The CLP Regulation (EU) No 1272/2008, concerns the classification, labelling, and packaging of chemical substances and mixtures that are released on the EU market, and it is based on the GHS.

REACH – Registration, Evaluation, Authorisation and restriction of Chemicals (EC 1907/2006). This EU regulation places the main responsibility on industry to manage the risks from chemicals and to provide some information to the European Chemicals Agency, ECHA. Information is made available on the ECHA web site.

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9 http://www.oecd.org/chemicalsafety/testing/oecdguidelinesforthetestingofchemicals.htm
10 http://www.oecd.org/chemicalsafety/testing/good-laboratory-practiceglp.htm
12 http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html
3 Options for financing of national administrations

Ways of financing the work of public institutions on chemicals management is an issue for national deliberation. In this section, financing options for the national administrations will be discussed. The options that are covered include financing from fees and from the state budget, where the main revenue is various taxes but might include profits from state-owned companies and external funding. The options are not fully interchangeable. The state budget could be used for all tasks of the administration, whereas fees can only finance those tasks that can be defined as services to those paying the fees. The comparison is therefore only valid for those parts of the administration where a choice is possible.

The difference between taxes and fees, according to the legislative history, is that a tax is a forced contribution to the state without direct service in return, while a fee is matched by a specific service in return from the state. Revenues from taxes can be used for defence, schools, and hospitals, as well as chemicals control, regardless of who is paying, but revenues in the form of fees, collected to finance chemicals control, are only intended for that purpose. For fees related to inspection activities, there should be a relation between the state activities and the group of companies concerned, but not necessarily with each individual company.

In connection to inspection activities, most countries also have the power to use sanctions and to issue fines. It is important to note that while environmental fines and sanctions can generate funds, the main purpose of sanctions is to get corrections and compliance with legislation. Sustainable cost recovery is not associated with such measures.

The following criteria will be used to compare the different ways to finance national administrations for chemicals management:

1. **Degree of secure financing**, meaning how stable the flow of funding is and how dependent it might be on influences such as political prioritisation that might vary over time.
2. **Administrative feasibility and simplicity**, meaning how possible or easy it is to implement the system.
3. **Fairness**, which describes how close the payments of a company are to the real administrative costs of chemicals management generated by that company. It might also relate to ensuring that the taxes and fees are non-discriminatory, with international companies being treated similarly to domestic companies, and state-owned companies being subject to the same fees as private companies.

When it comes to possible incentives, every type of financing instrument has some impact on behaviour, i.e. on the use of chemicals. The level of these impacts varies greatly, and they can be both positive and negative. Risk management efforts decided by the government through economic instruments with the main purpose of affecting behaviour are not common for chemicals management in any country. For such systems to work well, there is a need for a functioning system for tax collecting aimed at individual companies.
If the aim is to affect behaviour, different measures are possible, including administrative, economic, and informative measures. These should be compared with each other, and the most efficient measure should be chosen in each case. Economic instruments with the main purpose of affecting behaviour are therefore not discussed in this guidance but are discussed in another guidance document on risk management measures.15

Box D. Definitions on taxes and fees

Lawmakers decide on both taxes and fees. It is normally the Parliament that makes decisions on taxes, while decisions on fees can be delegated to the Government or an authority.

**Taxes** refer to a statutory payment determined by law from persons, groups, or companies in order to provide the state and municipalities with income. Examples of taxes are state and municipal income tax; value added tax; real estate tax; excise taxes on alcohol, tobacco, and energy; emissions tax; and contributions to social insurance.

**Fees** are paid as compensation to cover the costs of general or specific public administrative services. In cases where there is a defined activity of authorities towards companies, it will be possible to quantify and price the efforts of the authorities.

3.1 National budget allocation

The funding of national administrations for chemicals management could come from the state budget either in whole or in part. However, some important activities of national administrations ought to be covered by the state budget. This occurs when the linkage between an activity and the service in return from the state to the companies can be considered too weak to cover the costs through fees or where the collective of companies concerned cannot be sufficiently defined to charge fees.

Such activities could include:

- Establishing, maintaining, and further developing the legal frameworks.
- Ensuring a dialogue with stakeholders, outside the sphere of the companies paying fees.
- National work related to chemicals present in articles, where the collective of companies concerned cannot be sufficiently defined to charge fees.
- Regional or international collaboration.

A national budget allocation depends on political decisions year by year. If these decisions tend to be fairly stable over time, the national budget allocation performs well for the first two criteria about secure financing and administrative feasibility and simplicity. Using governmental revenues is likely the simplest way of financing the chemicals control. When it comes to fairness, one can safely argue that the whole population benefits from both the use of chemicals and from better management of chemicals. However, the cost of chemicals control will be shared by the whole society, and the costs for controlling the companies that place chemicals on the market will not be borne by those companies specifically.

15 The Swedish Chemicals Agency guidance document on Risk Reduction of Chemicals, will be published during 2018.
3.1.1 Domestic resources

Domestic resources will be critical if national administration of chemicals management is to be financed through the state budget. Different countries have different sources of revenues in the state budget. Additional resources can generally be acquired through, for example improved tax policy, tax systems, and more efficient tax collection. Applying taxes on chemicals produced or imported is also a way of increasing revenues in the national budget. If this is done, it is important to make sure that all companies producing or importing chemicals, including multinational companies, pay taxes to the governments of the countries where the economic activity occurs. However, such taxes will also become a part of the national budget and become subject to the national budget allocation process. There is no guarantee that these revenues will be allocated to strengthening the national administration for chemicals management.

3.1.2 External funding

For some countries, appropriate international assistance to supplement domestic resources can be important. International funds and development cooperation can either be earmarked for special activities or be in the form of support for the general budget. In the latter case, the funding will become part of the overall budget and be subject to the national budget allocation process.

The Global Environmental Facility (GEF) has a role in providing grants and concessional resources to support projects within chemicals management. Over time, the GEF has moved toward an integrated approach to chemicals and waste that combines persistent organic pollutants, ozone-depleting substances, mercury, and SAICM in a single focal area. This approach maximizes crosscutting global environmental benefits while continuing to support the individual chemical conventions.16

Countries might also apply for external funding from the UN Special Programme for development projects. The programme was established in 2015 to strengthen the national infrastructure (legislation and institutions) for chemicals risk management, see box B. The Special Programme aims to support country-driven institutional strengthening at the national level. The expected outcome of the activities supported by the Special Programme is that strengthened national institutions in the area of chemicals and waste will have the capacity to

- develop and monitor the implementation of national policies and strategies,
- develop programmes and legislation for the sound management of chemicals and wastes,
- promote the adoption, monitoring, and enforcement of legislation and regulatory frameworks, and
- promote the mainstreaming of the sound management of chemicals and wastes into national development plans, national budgets, policies, legislation, and implementation frameworks at all levels.

For more information, see the Special Programme terms of reference.18

16 https://www.thegef.org/topics/chemicals-and-waste
17 http://web.unep.org/chemicalsandwaste/special-programme
Countries could also seek funding from countries offering bilateral support. Such support could either be in the form of support for the general budget or in the form of support for a specific programme in the field of chemicals safety. In both cases, the possibilities of getting support will be enhanced if chemicals management is being mainstreamed into the national development plans. This could in the first case lead to an allocation to the field from the general budget, and in the second case this could give a signal to the countries providing bilateral support that chemical safety is prioritized by the country. These processes are further described in UNDP’s guidelines for integrating the sound management of chemicals into development planning\(^1\), where practical guidance on this is given.

However, external funding can only pay for activities to get started or other short-term activities. In order to have a long-term functioning and stable chemicals management in a country, other means of financing the national administration need to be found.

### 3.1.3 Allocation of the budget

A key element for ensuring the availability of the required resources is the establishment of mechanisms where institutions for national chemicals management get access to the national budget allocation process. Within national budget cycles, ministries annually request funding for their activities. For many reasons, however, predictable, reliable, and sufficient funding for the sound management of chemicals is not always forthcoming. The link between sound management of chemicals and sustainable development might need to be better understood by financial decision-makers. This development will require demonstration of the benefits of investing in preventive measures. These arguments then need to be fed into the national budget process in the proper form and in a timely manner so that the budget allocation decision-makers and financing departments can make decisions to allocate required funding for the proposed activities.

### 3.2 Cost recovery fees

Cost recovery fees can finance tasks that can be defined as services to those paying the fees. They can, for instance, cover cost for inspections and for providing and maintaining registration, licensing, and authorization systems. They could be designed either as annual fees or as fees per service. For annual fees, there should be a relation between the state activities and the group of companies paying the fees, but the services each individual company receives can vary from year to year. Thus, fees charged for a specific service have a more direct link between the company paying and the service they receive.

For the criterion of secure financing for many of the activities of national administrations, fees have the advantage of being earmarked for chemicals management, i.e. funding is not dependant on political decisions from year to year.

### 3.2.1 Annual fees

In a system with annual fees, all companies placing chemicals on the market in a country, both those that produce chemicals within the country and those that import chemicals, pay an annual fee. The country needs to issue legislation to define such fees.

An annual fee can be used to cover different government tasks during a full year, for example:

\(^1\)http://www.undp.org/content/undp/en/home/librarypage/environment-energy/chemicals_management/Guide_for_integrating_SMC_into_development_planning.html
- Maintaining registers of producers and importers of chemicals and the chemicals that they place on the market.
- Performing a number of inspections of producers and importers of chemicals.
- Carrying out a number of assessments for approvals of specific chemicals.
- Maintaining a process for granting exemptions.
- Providing a helpdesk service and other guiding and supportive material to companies.
- Issuing licenses

The level of the fees needs to be calculated based on the level that the country chooses for the above-mentioned tasks, the cost of the administration for keeping that level, and the number of companies paying the fees. Choosing the level is a process within the country. For example, a country might have 1,000 companies that produce or import chemicals. If the country decides that it is sufficient to inspect these companies every fifth year on average, this will lead to one level of costs for the administration. If the country decides that it will be sufficient to inspect these companies every tenth year on average, this will lead to another level. The same goes for keeping a register, the more detailed the register the higher the cost will be, and the same goes for all other tasks that should be covered by the fees.

An annual fee could be constructed as a flat-rate fee where all companies pay the same amount. There is also the possibility to differentiate the fees. This could be done, for example, based on the number of products, quantities, toxicity class, or a combination of these. It is also possible to combine flat-rate fees and differentiated fees. However, all differentiation requires additional data. This will in turn require additional capacity by the national authorities, both for the administration of this data and for verifying that the information given by the companies is correct. As national requirements and capacity develop over time, so can the design of fee systems.

As long as the structure of production and import to the country is rather steady, flat-rate fees can generate a guaranteed level of revenue at relatively low costs for administration of the cost recovery system with which public agencies can support chemicals management activities.

Flat-rate fees perform well for the first criterion on secure financing for the costs that the fees are meant to cover. This is due to the close link between collection and use of the fees, i.e. the earmarking of revenues. Flat-rate fees also perform well for the second criterion, i.e. about administrative feasibility and simplicity. Concerning fairness in relation to the real costs of the authorities for the chemical management services, there is no simple construction of a flat-rate fee that reflects costs in a very good way. The administrative costs for government agencies are closely linked to the number of companies and the number and volume of substances per company. It might be seen as unfair that producers and importers of small numbers of chemicals in small volumes or chemicals causing little harm have to pay as much as those who have many chemicals in large volumes or chemicals known to cause harm, because it is likely that the latter category will generate more work for the authorities.

It is possible to have fees that are based on a combination of, for instance, the number of chemicals and the volumes of these chemicals per year. This might be viewed as somewhat fairer, but it also increases the complexity and administrative burden.
<table>
<thead>
<tr>
<th>Fees based upon</th>
<th>Requires that the authority has access to</th>
<th>What needs to be established and maintained in the country?</th>
<th>Degree of resources required</th>
</tr>
</thead>
<tbody>
<tr>
<td>One level for all importers and producers</td>
<td>Contact details of importers and producers</td>
<td>Register of importers and producers of chemicals that is updated annually.</td>
<td>Limited, a register of enterprises is also often central for other purposes.</td>
</tr>
<tr>
<td>Size of the importers and producers (e.g. number of employees or annual turnover)</td>
<td>Information about number of employees and annual turnover per company</td>
<td>More detailed register of importers and producers of chemicals that is updated annually. Competence to retrieve, store, and analyse information about the importers and producers.</td>
<td>Low</td>
</tr>
<tr>
<td>Volume of produced/imported chemicals per company and year</td>
<td>Detailed information about volumes produced or imported per company</td>
<td>Register of producers, importers, and chemical products. Competence to annually retrieve, store, and analyse information about the importers and producers and the volume of various chemicals.</td>
<td>Medium</td>
</tr>
<tr>
<td>Number of chemicals produced/imported per company and year</td>
<td>Detailed information about the number of chemicals produced or imported per company</td>
<td>Register of producers, importers, and chemical products. Competence to retrieve, store, and analyse information about the importers and producers and the number of various chemicals.</td>
<td>Medium</td>
</tr>
<tr>
<td>A combination of volume and number of chemicals per company and year</td>
<td>Detailed information about volumes and numbers of chemicals produced or imported</td>
<td>Register of producers, importers, and chemical products. Competence to retrieve, store, and analyse information about the importers and producers, the volume of various chemicals, and the number of products.</td>
<td>Medium-high</td>
</tr>
<tr>
<td>The hazardous properties of the produced/imported chemicals per company and year</td>
<td>Data on hazardous properties</td>
<td>Register of producers, importers, and chemical products. Competence to retrieve data on hazardous properties and assess the data against criteria for all substances/products imported or produced.</td>
<td>Very high</td>
</tr>
</tbody>
</table>

Fees that as far as possible relate to the actual costs of national administration fulfil the criterion of fairness to a higher degree. As mentioned above, companies producing or importing highly hazardous chemicals might cause more work for the authorities than others.
Differentiated fees based on properties could in that respect be seen as fairer. However, such fees require a lot more from the authorities when it comes to defining the criteria on which the differentiation should be based, collecting the data, and assessing the data. Therefore, they perform less well for the second criterion of administrative feasibility. Furthermore, due to the lack of data for many chemical substances, it is not easy to create a fair system based on the properties of the substances. If the toxicological and eco-toxicological properties are unknown, it is not possible to determine which fee to pay. This might lead to a fee set at a level that turns out to be too low if it is found later that the substance actually has hazardous properties that were not known when the fee was determined. In fact, a system of fees based on hazardous properties might give negative incentives for testing substances for hazardous properties.

3.2.2 Fees per service

As an alternative to annual fees, fees could also be charged for each provided service. This would require that the cost of a specific service be easy to define. Examples of services for which fees per service could be considered include inspections of companies and assessments of applications from companies.

As annual fees, fees per unit could also be constructed with various levels of differentiation. They could be set at the same level for all companies or they could be charged at a fixed rate per hour. A fee at the same level for all companies means that there will need to be some surplus payment above the cost recovery for the service in some cases and underpayment in others. In the case with fees per hour, the complexity of each case will lead to higher or lower fees for the company involved.

3.2.3 Fees for authorization (per unit/hour)

Authorization systems are typically used for chemicals of high concern. Most countries have authorization systems for pesticides because these have hazardous properties and are intended to be spread in the environment. Many countries have introduced some level of fees to cover the cost for authorization. In the case of the European regulation REACH, authorizations are also required for substances of very high concern. Once a substance has been defined as a substance that requires authorization, companies or groups of companies have to apply for such authorization. The procedures for assessing the substances before the authorization are costly, and fees have to be set to cover the workload of the authority.

For each application, the criterion on secure funding can easily be fulfilled because it is in the interest of an applicant to pay the fee in order to get an authorization. However, the number of applications might vary from year to year, and it might therefore be problematic for an authority to maintain a fixed number of staff based on the revenues from these fees. If the system is constructed with one fee for all applications, calculated based on the average time for assessing an application, the system will be easier to administer but less fair, as those who have less complex applications will pay just as much as those who have more complex cases. The system can alternatively be designed so that the applicants pay for the exact costs that the specific application incurs. In this case, the administration of the system increases. The staff working with the assessment need to register their time, and all other costs need to be recorded with enough level of detail to be able to allocate the costs to each application. Fairness increases simultaneously.
3.2.4 Fees for inspections of chemicals placed on the market (per unit/hour)

Systems to inspect the companies that place chemicals on the domestic market can be arranged in different ways. The two main models are market surveillance and border control or a combination of the two. Here we describe market surveillance. Border control and related import licenses are covered in the next section.

Inspections, including verifying or testing of chemicals products, is an important task of the national administrations and might be well suited for fee-based financing. This could be done by annual fees, as described earlier, or fees per inspection. Fees per inspection could either be constructed as one fee for all inspections or as different fees linked to different inspection activities, because the costs for the inspection varies depending on the type of inspection and size of the company. This could be done by charging costs per hour for the time of the actual inspection and related work before and after the inspection together with other costs for travel, etc.

An issue to consider in comparison with annual fees is that most producers and importers benefit from law enforcement. Thus if only a few producers and importers are selected annually for inspection activities, then these will have to cover the costs for the entire national enforcement capacity, which can be perceived as unfair. However, over longer time this will probably be evened out.

A component of enforcement and inspection activities is checking the quality of the information from the producers or importers, which might include laboratory analyses. Access to qualified laboratories is important for conducting inspections where analyses can be needed for ensuring compliance. The national authorities for enforcement should therefore establish a system to facilitate access to suitable laboratories. Many governments use certified laboratories from the private sector, and it is important that fees can cover all costs for such analyses (see chapter 3.2).

3.2.5 Fees for import licences

Licenses can cover all kind of products, including chemicals. Many countries have systems with import licenses, i.e. the right to import and place chemicals on the domestic market. Often countries charge a fee for licencing. In such case, the fees are normally paid for each delivery at the border. Importers are charged either per tonne or just an administrative fee at each time of import. Fees for import licences normally cover the costs of processing the licencing but not for chemical management activities in the countries. If a revenue is created that is above the cost for administrating the licensing process, it is normally not earmarked, which puts that part of the import licenses in the same category as taxes.

Fees for import licencing are only paid by importers and not by those who produce chemicals within the country. In addition, licence costs to the importer could be high for those who have several shipments for each chemical per year. Fairness can be questioned because fees linked to import licences favour domestic producers.

Concerning administrative feasibility, the costs of running a system with import licences at many points of entry into a country are relatively high.

3.3 Comparing the funding options

The presented funding options could be used for different situations and be combined in different ways depending on the situation in the country. There are some components of chemicals policy, such as the process in which the policy is developed and updated and
general awareness-raising efforts, that ought to be financed from the state budget. In addition, choices among different financing options could be made to meet the expectations of an efficient governmental administrative system. Funding options could be mixed in a number of different ways, and some examples are given in table 3 below.

**Table 3. Four alternative models of mixing funding sources for government chemicals management**

<table>
<thead>
<tr>
<th>Activities/Models</th>
<th>Development of new legislation, international negotiations, etc.</th>
<th>Registration of enterprises, Helpdesk</th>
<th>Enforcement</th>
<th>Authorization, approvals, permits, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>Allocation from the state budget</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>Allocation from the state budget</td>
<td>Annual fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td>Allocation from the state budget</td>
<td>Annual fees</td>
<td>Fees per service</td>
<td></td>
</tr>
<tr>
<td>Model 4</td>
<td>Allocation from the state budget</td>
<td>Annual fees</td>
<td>Fees per service</td>
<td>Fees per service</td>
</tr>
</tbody>
</table>

In view of all the different options available, governments have to discuss what might be the best way considering already existing budget systems and industry activities. An overview of the pros and cons of the different funding options is shown below in table 4.
Table 4. Different options for financing institutional capacity for chemicals management.

<table>
<thead>
<tr>
<th>Different options for financing institutional capacity for chemicals management.</th>
<th>Degree of secure financing/Stability</th>
<th>Administrative feasibility and simplicity</th>
<th>Fairness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State budget.</strong></td>
<td><strong>Pro:</strong> Can be stable when chemicals control is prioritised by the country.</td>
<td><strong>Pro:</strong> Already established systems. Low additional cost for administration. Simple to use. Can be used for all activities of the government.</td>
<td><strong>Pro:</strong> Everyone benefit from the safe handling of chemicals.</td>
</tr>
<tr>
<td></td>
<td><strong>Con:</strong> Competes with other needs. Can change quickly.</td>
<td><strong>Con:</strong> None identified.</td>
<td><strong>Con:</strong> The companies profit from the import and production of chemicals, but everyone has to pay for the control of the chemicals.</td>
</tr>
<tr>
<td><strong>Annual fee – Flat rate or differentiated</strong></td>
<td><strong>Pro:</strong> If the industry structure is stable the revenue from fees will also be stable</td>
<td><strong>Pro:</strong> The relevant group is normally identified and registered. Only one invoice per year. Flat rate is relatively easy to calculate.</td>
<td><strong>Pro:</strong> The companies that cause the need for government work will pay the cost. The more differentiated, the fairer the fee.</td>
</tr>
<tr>
<td></td>
<td><strong>Con:</strong> Total revenues can vary depending on fluctuations in number of companies or sales of chemicals.</td>
<td><strong>Con:</strong> Separate system needs to be established. The more differentiated, the more administration required. Cannot be used for all activities, and must therefore be complemented by other financing.</td>
<td><strong>Con:</strong> Depends on the differentiation. A flat rate will be a bigger burden for small companies.</td>
</tr>
<tr>
<td><strong>Fee per service – Flat rate or differentiated</strong></td>
<td><strong>Pro:</strong> The level of activities will always generate and guarantee an equivalent fee.</td>
<td><strong>Pro:</strong> The relevant group is normally identified and registered.</td>
<td><strong>Pro:</strong> The companies that cause the need for government work will pay the cost. The more differentiated, the fairer the fee.</td>
</tr>
<tr>
<td></td>
<td><strong>Con:</strong> If the fees are based on applications from industry, these can vary in number and thus lead to fluctuations in total revenues.</td>
<td><strong>Con:</strong> Separate system needs to be established. The more differentiated, the more administration required. Cannot be used for all activities, and must therefore be complemented by other financing.</td>
<td><strong>Con:</strong> In the case of inspections, only the inspected companies will cover the costs for the relevant part of national enforcement capacity.</td>
</tr>
</tbody>
</table>
A comparison of the criteria from the above options of funding would give the following:

- For secure finance, revenues from fees (earmarked for chemicals policy) would be preferable.
- For administration, it is preferable that there be an allocation from the state budget or a flat-rate fee construction with respect to who will have to pay what and when.
- For fairness, companies should fund the government work that their activities generate. This would mean financing by fees that to at least some degree should depend on, for example, the numbers and amounts of chemicals imported or produced.

The exact balances of the funding options needs to be decided in each country based on the national conditions.

**Box E. Financing of the Swedish Chemicals Agency and the European Chemicals Agency**

The Swedish Chemicals Agency was established in 1986 and has from the start been partly financed from fees on pesticides and on other chemicals. A fee on chemical products – the chemical fee – is annual and is linked to the amount produced or imported and on the number of chemical products reported to the Swedish Products Register. For the authorization of pesticides, including biocides, there is both an application fee and an annual fee related to the value of the amounts sold. These fees generate revenues that are allocated through the state budget to the authority annually. For the evaluation of the assessments of active ingredients in plant pesticides or biocides, according to the EU legislation, there is since 1998 a fee that corresponds directly to the costs of ensuring the evaluation capacity at the Agency, which is paid directly to the Swedish Chemicals Agency. In 2017, the chemical fees financed approximately 50% of the cost for running the Agency.

Companies that are producing or importing chemicals from 2007 also have to pay fees to the European Chemicals Agency, ECHA. According to the REACH regulation, chemicals can only be used if they are registered, and there is a fee for registration. The purpose of the fee is to cover the necessary processing by ECHA and the member states. Substances that are put on a special list (the Annex XIV list) can only be used after being granted authorisation. Companies can apply for authorisation for use of substances listed in Annex XIV. The fees for an application for authorisation were €54,100 in 2017 for each application for large enterprises and one tenth of that for micro enterprises (those with fewer than 10 employees and less than €2 million in annual turnover). Additional applicants, substances, or uses are subject to additional fees (Commission regulation (EC) No 340/2008.). The fees are meant to cover the costs for ECHA to handle the application, but the much lower costs for micro enterprises are set to support their capacity to innovate and create jobs. (Commission regulation 2003/361/EG)
4 Economic arguments

If sound chemicals management is not introduced, there is a risk that there will be very high costs for society\(^{20}\). If all tasks for chemicals management are to be carried out by the government, the administration will be very extensive and costly at the expense of other prioritized areas. Chapters 3 and 4 describe possible systems where the costs for chemicals management are at least partly paid by trade and industry. In this chapter, some arguments on why this is reasonable are presented.

There are large flows of various chemicals on the national markets. From an operational point of view, it is reasonable to place the responsibility for the safety of the products on the producers and importers who have the most detailed knowledge of their own products, their hazards, and possible risks. The costs of governmental efforts to organise efficient control of chemicals are due to activities of producers and importers of chemicals. It is, therefore, also logical to consider applying special fees on companies to pay for some of the services of the government. This cost is normally very limited in comparison to the turnover of the companies. To give an example, the payment by chemical companies to the Swedish state as fees for chemicals control, according to statistics, amounts to approximately 0,2 per cent of their turnover\(^{21}\).

A clear and predictable regulatory framework with defined responsibilities for chemicals control together with reliable enforcement has positive effects because it creates a level playing field for trade and industry. Part of the costs for industry may be compensated for by cost reductions in production due to improved management of chemicals. Investments in the use of less hazardous chemicals or other techniques and improved information on risks and safe use will provide a return on investment in the form of reduced need for costly technical risk reduction measures for exposure and emission control. Better chemicals management often also results in more cost-effective processes with an overall reduced use of chemicals and less waste. Costs of initial investments will in many cases be recouped in one or a few years according to a report by the Swedish Chemicals Agency\(^{22}\). Investments in improved chemical management are also likely to pay off in the form of improved business opportunities.

In the Swedish Chemicals Agency Report 1/13\(^{23}\) *Influence of Legislation on the Location of Chemicals Industries*, the relative importance of chemicals legislation with defined responsibilities, as recommended in the LIRA-guidance, versus other factors influencing relocation and establishment has been studied. The conclusion, supported by a literature review and a set of interviews, was that chemicals management legislation is of minor importance for decisions on location of companies in the chemical industry. The industry association representatives interviewed all stated that access to markets and resources are the most important factors affecting relocation and new establishment. In addition, all interviewees claimed that a clear and predictable regulatory framework for chemicals management is an asset for business in any location and is not a push factor for relocation. Suggested reasons for the relative mobility of the chemical industry include the fact that the sector consists largely of multinational firms that move their operations to access new markets or raw materials in other countries. For labour-intensive firms, reducing costs by relocating

\(^{20}\) https://www.unenvironment.org/resources/report/costs-inaction-initiative


parts of their production to countries with lower salary levels is one of the most important drivers behind relocation.

5 Designing a financing system

5.1 The legal basis

As described in chapter 3, it is of great importance to have roles and responsibilities for tasks such as hazard and risk assessment, classification and labelling, etc., clearly defined in the legislation. Normally this is done in the chemicals legislation.

In addition, it is reasonable that the producers and importers of chemicals pay for some of the activities that need to be undertaken within the national administration.

Both taxes and cost recovery fees require a legal basis and an institutional organization that oversees effective implementation. The companies that can be subject to fees or taxes are primarily those that produce or import chemical substances, mixtures, or articles containing chemical substances. A number of aspects need to be included in legal documents in relation to sustainable financing of the national administration.

In the national legislation related to financing of public chemicals management activities, answers to the following questions should be included:

- Which companies should be covered?
- Which chemicals (substances and mixtures) should be subject to fees?
- Should there be different levels depending on volume, number of chemicals, etc.?
- Should the fee be paid on an annual basis or per service?
- Should there be some exceptions?

The legislation might be developed gradually. The regulations can be included in one or several separate laws. In terms of institutional arrangements, clarification of responsibilities in the implementation of the financing system is necessary. The legislation underpinning the fee systems also has to include details of the designation of authorities. Specifically, designers of financing systems must identify which ministry or authority is best suited to:

- design necessary legislation that underpins the financing system, with legal empowerment of ministers and ministries to enact more detailed regulations required for implementation of the financing system
- collect the fees
- monitor and enforce compliance with financing systems.

The possibility to achieve the lowest running costs for the collection system must be considered, and identifying mechanisms that already exist for collecting charges is important. New charges might build on existing taxes or fees in order to avoid unnecessary additional administrative costs. For instance, if there is a system for charging general taxes on producers and importers, the same administrative system can be used to charge possible general taxes on producers and importers of chemicals.

Funds raised through fees on the placement of chemicals on the market should be earmarked for chemicals management in relevant ministries and authorities. For transparency and to avoid corruption, it is recommended that fees for, for example, inspections are not collected directly by inspectors, but are paid by the companies to the state. Even annual fees could, preferably be collected by a central state entity and given to the authorities concerned.
There might also be a conflict of interest in the design of the system if institutions are directly dependent on fees for services rendered, because they then might be encouraged to ‘oversupply’ their service and therefore reduce value-for-money. To avoid this risk, it is important to clearly define the tasks and standards required to fulfil the assignment of the institution.

5.2 Levels for fees and taxes

The funding process, known as valorisation, is characterised by identifying desirable activities and raising finances to implement them. In the case of sustainable financing of national administration, fees are set in accordance to the cost of national administration in providing chemical control activities. As described in chapter 3.2, a good rule is that fees should be kept as low as possible while still covering the costs of the services performed by national administrations. In deciding on the levels for fees, it is advisable to also include the overhead costs, i.e. indirect costs such as costs for office space and general administration in the relevant government authority.

Clearly linking cost recovery to the service being provided might help overcome resistance within an industry or in society. Clear communication on the loop of paying fees and receiving benefits of service within a particular chemicals management issue generally helps in getting the system to be accepted compared to a situation where money is perceived to “disappear” into the general government revenues. It is important to point out that the purpose of the fees is to cover the costs of the governmental tasks in chemicals management, not to create revenue for government in general.

5.3 Monitoring and enforcing

Inspection services must be in a position to identify firms that have not paid the fees attached to systems for financing the national administrations costs.

If the laws are weak, corruption exists, or there is a lack of capacity to initiate and carry out legal action, this will create problems. In the case of revenue-generating instruments, enforcement mechanisms can capitalize on existing tax laws and their enforcement. If environmental-related fees and taxes are covered by the same branch of law, coordination with other public finance-raising structures will increase the likelihood of success of these instruments.

The use of sanctions and penalties for late or non-payment of fees should also be considered to ensure compliance with the financing system.
6 Further literature


