



Factsheet 05 | How can a regulatory framework be designed?

This factsheet outlines the requirement for a legal framework at a national level (legislation, by-laws, decrees, ordinances etc. depending on the legal context in the country concerned) and the basic content that it should include. It describes the key policy instruments that form part of an EPR system, such as collection and recycling targets, obligations for private sector companies and ensuring there is sufficient flexibility to form PROs, as well as for monitoring and evaluation.

Particularly in low- and middle-income countries, waste management is often poorly organised and tremendously underfunded. Municipalities and local authorities often lack the organisational and financial resources needed to improve the overall operating environment and create a circular economy, complete with collection services that provide acceptable conditions for their staff, waste segregation at source and treatment options for different waste types, including packaging. In this context, EPR is a key concept to 'closing the loop' in the packaging value chain by obliging producers to assume responsibility for their products. As an approach to governance, EPR requires a high degree of interaction between stakeholders along the packaging value chain. National governments play a crucial role in preparing the legal framework for EPR packaging systems. Getting this framework right allows producers to make an effective contribution to managing packaging waste and ensures there is a level playing field among obliged companies. Ideally, the process of drafting this framework should take place in consultation with stakeholders along the packaging value chain, thus facilitating implementation later on.

Voluntary initiatives vs mandatory systems

In many countries, a variety of industry-led initiatives, individual projects and structures (particularly those led by manufacturers, producers and importers) are already being implemented. **Voluntary initiatives** are a great way of gathering experience of specific issues, but voluntary initiatives by companies are usually linked to their individual Corporate Social Responsibility budgets and/or limited to projects dealing with specific types of materials that have a certain minimum market value. Ensuring that all types of packaging is collected, sorted and recycled on a large-scale requires better organisation and bigger financial flows in order to create solid business cases right along the value chain.



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As a system for collecting and recycling household packaging always requires significant additional funding, voluntary initiatives cannot fulfil these tasks. There is a need for a clear legislative and legal framework that takes account of both extended producer responsibility and the ‘polluter pays’ principle, of which both are important in ensuring a level playing field. The principle behind EPR is discussed at length in the practical manual on EPR adopted by the 14th Conference of Parties of the Basel Convention (2019).¹

Mandatory EPR systems require a specific legal basis. As far as packaging is concerned, this means that the system’s objectives and all measures designed to achieve them must be set out in a **complete, specific** and **unambiguous** manner as part of a legal framework. The legal basis for the EPR system could be set out in a legal framework specifically for packaging, or could be added to the general environmental law, or to another law. This framework could take the form of an act of parliament, by-law, decree, ordinance or other suitable legislation depending on the country concerned. The framework should also include details of any penalties/fines that may be imposed should obliged companies fail to fulfil their duties under the framework. Such penalties should be in line with the way environmental regulations are enforced in the country concerned.

The following table compares some important aspects of mandatory EPR systems (with effective implementation and supervision) and voluntary initiatives.

Table 1: Mandatory EPR systems vs voluntary initiatives

Criteria	Mandatory EPR systems	Voluntary initiatives
Financial aspects and sustainability	<p>Since the definition of an obliged company is clearly set out, there is a reliable legal basis for running costs to be covered over the long term. This is a very important consideration for investors.</p> <p>The EPR system involves financial contributions from all companies that sell packaged products (potentially numbering several thousand, or even more). The companies usually incorporate any additional costs into the price of the product concerned.</p>	<p>Since there is no obligation, each company decides for itself whether and how much it wants to invest in a project on a voluntary basis. Hence there is no guarantee that running costs will be covered.</p> <p>The financial contribution of each company tends to be small when compared to the contributions companies have to pay in a mandatory EPR scheme.</p>
Competition	<p>Since all companies introducing packaging into the market are obliged to pay for the EPR system, the system does not distort competition. The rules apply equally to all the obliged companies, and a level playing field is maintained.</p>	<p>Only a few companies participate in voluntary measures, and they might incur competitive disadvantages as a result.</p>
National systems	<p>Provided there is a solid legal framework, EPR systems can be set up covering whole countries (or other clearly defined economic regions/blocs).</p>	<p>It is not possible to establish a comprehensive, nationwide collection system covering all packaging waste on a voluntary basis.</p>
Monitoring	<p>Compliance with legal requirements can be closely monitored, provided that the state</p>	<p>Aside from voluntary disclosures and declarations, there are no official monitoring systems to check whether the voluntary</p>

¹ Basel Convention (2019) Revised draft practical manual on extended producer responsibility (UNEP/CHW.14/5/Add.1)

Criteria	Mandatory EPR systems	Voluntary initiatives
	authorities have sufficient resources to do so.	initiatives fulfil their targets. There is no reliable planning capability.
Results	<p>It is possible to develop a sustainable waste management system featuring:</p> <ul style="list-style-type: none"> ● A comprehensive collection system. ● Recycling infrastructure. ● A high-quality, profitable recycling industry ● Environmental-friendly disposal. ● Market participants who are obliged to meet waste disposal requirements. ● Education/provision of information/communications. 	<p>The results are very limited. A voluntary initiative cannot be considered a reliable part of any sustainable waste management system as no claims can be made against it. This means that projects are often shut down once they run out of funding.</p>

Key policy elements of a legal framework for an EPR System

In order for the EPR system to meet the objective set for it, the scope of the underlying regulatory framework must be set out clearly and in great detail.

Examples from countries that have already implemented EPR legislation show that there is no universally applicable ideal template for legal frameworks for EPR packaging systems. The regulatory basis underlying every EPR is different, and takes account of national frameworks and national strategies in the country concerned. Despite these differences, it can be said that most existing legislation usually covers the following points:

- a. Objectives
- b. Terms and definitions
- c. Mandatory PRO/system operator
- d. Obligated producers and importers
- e. Types of packaging covered by the EPR
- f. Scope of financing and financial calculations
- g. The collection system and collection targets
- h. Sorting, recycling and recovery targets
- i. Involvement of municipalities/local authorities
- j. Involvement of the informal sector
- k. Communications, provision of information and education measures
- l. The responsibilities and remits of relevant authorities and monitoring mechanisms
- m. Roles and responsibilities of any other stakeholders involved
- n. Incentives
- o. Penalties

a. Objectives

The description of objectives in the regulatory basis is important because the regulatory basis for the EPR will be applied in light of these objectives, and the overall success of the scheme judged

on whether these objectives are achieved. The objectives should be measurable and achievable, and it must be clear who will be held accountable for delivering them.

General objectives are formulated in the context of the policy strategy of the country in which the EPR is set up. Potential objectives for an EPR might include reducing packaging waste, promoting a circular economy and collection systems, promoting recycling and sustainable use of resources, cutting greenhouse gas emissions, promoting recyclability and facilitating reliable sources of financing.

Specific objectives are specific targets assigned to individual stakeholders. These might include, for example, targets for collection, recycling rates and the share of recycled material used in packaging instead of primary raw material. These targets are binding and must be verifiable. Therefore, the targets also have to be considered in the regulations. > See Factsheet 12 and 13

b. Terms and definitions

One of the most important features of a regulatory framework is the use of clear definitions that are not open to interpretation. As a bare minimum, the following terms should be clearly defined:

- **Packaging** (sales packaging, lightweight packaging, service packaging, transport packaging, industrial packaging, reusable packaging, system-relevant packaging)
- **Equivalent places of origin** (explicitly non-households, generating similar waste fractions as households; these might include hospitals, hotels, restaurants and offices)
- **Obligated companies** (companies obliged to participate in the system, such as producers, importers and others as appropriate)
- **System operator** (details of how the PRO will operate and what that means for the rest of the system)
- **Terms referred to as part of the waste hierarchy** (prevention, preparing for reuse, recycling, recovery, energy recovery, disposal)
- **Extended producer responsibility** (what the term means in general terms in the context of a waste management system, and for each relevant stakeholder)
- **Register** (what registers are defined within the regulatory basis and what information they will include)

Certain country-specific circumstances may require further definitions to be included in the framework (e.g. depending on the way single-use plastics regulations are implemented in the country concerned).

c. Mandatory system operator (PRO)

The three pillars described below must be defined in the regulatory basis for the EPR:

Table 2: Pillars of a regulatory basis

Structure & members	Responsibilities of the PRO	Rights of the PRO
<ul style="list-style-type: none"> ● Whether it is a monopoly (only one PRO) or there will be competition. ● Who the members of the PRO will be (whether all 	<ul style="list-style-type: none"> ● The mandatory tasks the PRO must carry out (e.g. building up a collective system encompassing collection, sorting and recycling of packaging waste, registration, collecting payment for these tasks from the obliged companies). 	<ul style="list-style-type: none"> ● Rights to appoint inspection bodies.

Structure & members	Responsibilities of the PRO	Rights of the PRO
<p>stakeholders in the supply chain can become members of the PRO, or whether only certain companies will be admitted).</p> <ul style="list-style-type: none"> Supervisory bodies 	<ul style="list-style-type: none"> Documentation and verification obligations. How the informal sector will be integrated into the system. Cooperation with the municipalities/local authorities. Research and development. Measures to be taken against littering and fly-tipping. 	<ul style="list-style-type: none"> Rights to commission external experts. Access rights. Rights to impose fines.

> See Factsheet 02

d. Obligated producers and importers

In an EPR system, **the legal framework should set out exactly who has to pay into the system and at which points within the system the obliged parties will be identified.** The wording of the framework might read something like “Obligated Companies are defined as companies that introduce packaging into the domestic market of country X, which is later used and disposed of in the territory of country X.” Hence, domestic producers and importers both fall under the definition of obliged companies. On the basis of this definition, the point at which the quantities of packaging are measured for the purposes of the EPR system would be the point at which the obliged company first introduces the packaging materials concerned to the market in the relevant country. This company has to be registered with the PRO and provide the PRO with all required information about its packaging. The (annual) financial contribution the obliged company will have to make to the EPR system can then be calculated on the basis of this information.

A clear and unambiguous definition of obliged companies and the system-relevant packaging to be included in the system is essential to ensure that:

- An EPR fee is paid for every item of packing that is used, and thus becomes a waste product in the country concerned.
- Obligated companies are not made to pay twice for the same packaging at two different points in the supply chain.
- Effective checks can be carried out as to which companies are obliged to pay into the EPR system, how much they should be paying, and whether they have made the payments required of them.

> See Factsheet 03

e. Types of packaging covered

The legal framework must set out which types of packaging produced by the obliged companies are covered by the scheme (i.e. whether the scheme covers all types of materials, such as plastics, paper, metals and glass, or only applies to specific categories of packaging such as household, commercial or industrial packaging waste).

The framework can also be used to include specifically defined types of packaging in the EPR scheme, such as specific single-use plastic items. Any specific inclusions must be explicitly listed in the relevant legal documents.

f. Scope of financing and financial calculations

The precise **share of the service costs to be paid by the obliged companies** must be clearly stated. For instance, will costs be covered entirely by the EPR system, or will municipalities/local authorities be expected to contribute to collection, processing and recycling costs?

The obliged companies should be expected to make a significant contribution to the overall cost of the system. At the same time, all obliged companies must be treated equally and should not be made to pay more than their fair share of the costs.

The legal framework can also set out whether the fees to be paid by the obliged companies should be modulated depending on how easily their packaging can be recycled (i.e. whether the fee for recyclable packaging waste should be lower than that for non-recyclable packaging). If a system of modulated fees is to be used, the criteria used to decide the fee payable should also be clearly stated. In some modulated-fee systems, the PRO decides how the fees are modulated. If the PRO takes on this responsibility, the legal framework can be worded more flexibly, but it should still stipulate in general terms that recyclability must be considered when setting EPR fees.

g. Collection system and collection targets

The framework should address the following aspects of the collection system:

- **Material fractions:** The legal framework should state whether all material fractions are to be collected right from the start of the EPR system, or whether the EPR will initially only cover certain material fractions, such as those for which there is already an established recycling market.
- **Proportion of households covered by the system:** Once a legal framework has been adopted, the collection system cannot be set up immediately for every household and equivalent places of origin in the country; it has to be built step-by-step. There are various options for such a step-by-step approach. The legal framework should set out targets by when a comprehensive system covering 100% of households should be in place across the whole geographical area of the EPR scheme. If it is not possible to cover 100% of households in the scheme area initially, it may be advisable to aim for 50% coverage within the first 3 years, rising to 100% after 5 years. Another strategy is to limit the EPR system to collection services in specific provinces/municipalities in the beginning. The amounts of packaging collected in these areas could then be compared against the total quantity of packaged products introduced to the national market by the obliged companies, and for which they are charged fees. If the EPR is introduced step-by-step, stakeholders can gain experience through pilot projects, which can then be fed into the future development of the system. > [See Country Report Chile](#)
- **Type of collection system:** The type of the collection system to be used (e.g. kerbside collection from households or bring systems in public places) can be determined by the PRO in agreement with municipalities/local authorities, or defined in the regulatory basis for the EPR system. The framework should also consider how to integrate informal waste collectors. > [See Factsheets 06 and 08](#)

h. Sorting, recycling and recovery targets

One important goal of an EPR system is gradually to establish structures for collecting and recycling or recovering packaging waste. With this in mind, the legal framework needs to state how performance against objectives will be measured over time to find out whether targets are met.

The regulatory basis should suggest some general requirements for the technical procedures involved in recycling, such as the recovery rate, the minimum quantities to be collected, and how relevant calculations will be made. For example, it should stipulate whether all packaging has to be recycled using material recycling processes and/or when chemical or energy recovery techniques may be used. The legal framework should also set certain recycling targets for the different material fractions, stated in terms of amounts of materials that need to be recycled or recovered per year. Recycling rates might be based on (i) the amounts licensed by the PRO; (ii) the amounts introduced to the market in the country concerned; or (iii) the amounts collected through the system. Targets cannot work unless compliance can be reliably measured, so accurate data is crucial. > See Factsheet 07, 11, 12 and 13

i. Involvement of municipalities/local authorities

A close partnership between municipalities/local authorities and the PRO is an important condition for the overall success of any EPR system, as well as for ensuring it is both economically and environmentally sustainable. The role municipalities/local authorities should play should be clearly defined within the framework, which should set out their precise operational responsibilities and how they will de-conflict with the system operator (PRO).

Communication and providing information are particularly important. All households and equivalent places of origin must be given specific information about the collection system, and kept regularly informed of any developments. The municipality/local authority can act as a bridge to individual citizens and other places where waste is generated, as well as being responsible for the disposal of waste from all waste streams not covered by the EPR. Therefore, the municipalities/local authorities should work together with the system operator to decide exactly what information will be provided to citizens, who will be responsible for answering any questions, who the primary point(s) of contact should be, and how communications activity will be funded. The specific content of any framework or related agreements will depend on the circumstances and legal framework in the country concerned.

j. Involvement of the informal sector

Any informal recycling activities should be integrated into the EPR system. The workers performing these activities should not lose their incomes, and should be transferred into the formal EPR system. The regulatory basis for the scheme can make integration a legal requirement, or it may stipulate that the PRO should draw up a plan as to how informal activities will be integrated into the system. The regulatory basis should outline how the informal sector can be involved in the EPR system and the responsibilities of the PRO in this regard. > See Factsheet 08

k. Communication, provision of information and education

An EPR system can only function properly if citizens/consumers participate in it. Therefore, they should be kept informed of strategies aimed at reducing waste and encouraging environmentally sound practices for returning and treating packaging. To ensure that the PRO does enough to educate the population and raise awareness of relevant issues, the legal framework might stipulate that the PRO should make a contribution to funding awareness-raising campaigns and similar initiatives. > See Factsheet 09

Stakeholders from trade, commerce and industry should also be provided with information about the EPR system, the associated infrastructure and the requirement to collect individual packaging



fractions separately. The EPR scheme should be based on strong, collaborative relationships between all stakeholders, and the PRO should ideally provide a platform to help forge connections between different stakeholders (such as between recyclers and packaging producers).

I. Regulations, remits of public authorities and monitoring mechanisms

An EPR system for packaging runs alongside other waste management activities carried out by municipalities/local authorities. The special way in which an EPR system is funded and organised makes it different from the collection systems for all other solid waste flows. It is therefore very important that it has separate rules and mechanisms for inspection and monitoring. Monitoring may be required at a number of different levels. For example, the municipalities/local authorities may need to check whether the PRO is complying with its obligation to set the specifications for relevant infrastructure and to provide notification as appropriate. Legislators may also wish to monitor progress towards recycling targets across the country as a whole, as well as to make sure that individual companies are complying with the system. Moreover, the legislative authority should create an effective and efficient legal framework for the implementation of the EPR scheme. Public authorities have a key role to play in the enforcement and supervision of the EPR system. The competent public authorities, along with their roles and responsibilities, must be explicitly listed in the legal framework, and they must be provided with sufficient resources to fulfil the roles assigned to them.

Further regulations not directly related to the EPR system

The following topics may also be addressed in the legal framework for handling packaging waste, although they are not directly related to the implementation and operation of an EPR scheme. However, these issues may also be covered by other legal frameworks:

- Littering prevention, beach clean-ups and similar services
- Handling of non system-relevant packaging
- Requirements for setting up a (potential) deposit-refund scheme
- Targets for use of recyclates
- Labelling obligations for packaging (e.g. types of plastic)

Further reading

An overview of different legal frameworks for EPR systems for packaging covering more than 30 countries can be found on **EXPRA's** website (<http://www.expra.eu/en/members>) as well as **PROsPA** (<https://prospalliance.org/members/>).



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