ELLEN MACARTHUR FOUNDATION

Initial considerations for global rules in the UN treaty to end plastic pollution

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Initial considerations for global rules in the international legally binding instrument to end plastic pollution

Response to the call for written submissions, issued by the INC secretariat on 9 December 2022

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Information regarding the submission:
As part of the Ellen MacArthur Foundation's engagement to support the development of an ambitious and effective UN plastics treaty, our aim is to (1) showcase the need for concrete objectives, global rules and obligations in the international legally binding instrument to end plastic pollution ("the instrument"), and (2) provide initial options and considerations on the nature of these rules and obligations.

This submission is not intended to be exhaustive. It looks at the call for submissions particularly through the lens of:

- Plastic packaging, which is the single biggest plastic application and source of leakage. The plastic packaging sector creates around 40% of total plastic waste today and is projected to almost triple by 2060.[1]
- How learnings from existing industry efforts and voluntary initiatives can inform initial considerations and options for global rules and obligations in the instrument.

Further insights to inform other potential elements of the instrument will be shared at a later stage.

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[1] OECD (2022), Global Plastics Outlook: Policy Scenarios to 2060, OECD Publishing

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I. Substantive elements

1. Objective(s)

The instrument must aim to successfully end plastic pollution, including in the marine environment, through the adoption of a comprehensive circular economy approach for plastics.

A global goal to end plastic pollution is needed that seeks to address the problem swiftly, while acknowledging that some more transformational changes in today's plastics economy will require time. In this context, we welcome that governments in the High Ambition Coalition support a global goal to end plastic pollution by 2040.[2]

A **comprehensive circular economy approach** across the whole plastics lifecycle is essential to achieve this. The latest scientific analysis shows that this approach is most effective in avoiding plastic pollution, while offering the best economic, employment, and climate outcomes.[3]

Such an approach mirrors the systems change solution to plastic pollution outlined in the pre-INC1 document on plastics science prepared by UNEP,[4] which sets out four strategic goals:

[2] High Ambition Coalition to End Plastic Pollution
[3] International Resource Panel (2021): Policy Options to Eliminate Additional Marine Plastic Litter by 2050 under the G20 Osaka Blue Ocean Vision
[4] UNEP/PP/INC.1/7

1. Reduce the size of the problem **by eliminating and substituting problematic and unnecessary plastic items**, including hazardous additives.
2. Ensure that **plastic products are designed to be circular** (reusable, recyclable, or compostable).
3. Close the loop of plastic in the economy by ensuring that **plastic products are circulated in practice** (reused, recycled, or composted).
4. **Manage plastic waste that cannot be reused or recycled** in an environmentally sound manner (including existing pollution).

In line with this approach, **we recommend that the instrument underpins the global goal of ending plastic pollution with concrete objectives** in the following critical areas:

1. **REDUCTION of plastic production and use**, focusing on those plastics that have high leakage rates, are short-lived, and/or are made using fossil-based virgin resources, because:
    - The elimination and substitution of selected problematic plastic items (see Appendix A for more details) is a good starting point, but we need to go further. It is crucial to reduce the size of the problem by tackling overall (virgin) plastics production and consumption.
    - Achieving at least an 80% reduction of plastic pollution by 2040 requires a 47% reduction and substitution of plastics, according to the most comprehensive scenario modelling to date.[5]
    - To remain within the industry's carbon budget for limiting global warming to 1.5℃, a 75% reduction of plastic consumption per person would be required by 2050, as recent modelling suggests.[6]
    - Reduction is essential to close the collection and recycling infrastructure gap. The latter represents an enormous challenge even with today's volumes, let alone with continued business-as-usual growth.

2. **CIRCULATION of plastic items that cannot be eliminated**, keeping them in the economy at their highest value, including:
    - Design. This determines whether a plastic item can be cost-effectively collected, reused, and recycled. In countries with an active informal sector, it significantly influences the economic incentive for waste pickers to pick up an item.
    - Infrastructure. For plastic to be circulated in practice and at scale, systems for collection, sorting, reuse, recycling, and composting are also key.
    - Establishing requirements on both design and systems for circulation of plastics has the potential to significantly reduce their leakage rate (see Appendices B and C for more details).

3. **PREVENTION and REMEDIATION of remaining hard-to-abate micro- and macro-plastic leakage** into the environment, including existing pollution.
    - While not the focus of this submission, the instrument should also tackle remaining hard-to-abate leakage that cannot be prevented via direct elimination, substitution, or circulation of plastics.

[5] Pew Charitable Trusts and SYSTEMIQ (2020): Breaking the Plastic Wave: A comprehensive assessment of pathways towards stopping ocean plastic pollution
[6] Eunomia (2022): Is Net Zero Enough for the Materials Production Sector?

These three objectives for the Treaty are also elaborated in a separate pre-INC2 submission by the Business Coalition for a Global Plastics Treaty.

As part of the New Plastics Economy Global Commitment and Plastics Pact network, the vision of a circular economy for plastics has been endorsed by over 1,000 signatories including 50 governments and businesses representing over 20% of the global plastic packaging market.

2. Core obligations and control measures

Why global rules are essential[7]

1. Voluntary efforts are necessary but not enough. Voluntary initiatives play a vital role in pioneering solutions and demonstrating what is possible at scale. However, these efforts will by themselves never be enough to eliminate plastic waste and pollution. For example, four years after its launch, the New Plastics Economy Global Commitment, a leading voluntary initiative, represents over 20% of the plastic packaging market. This is a significant proportion of the sector, but this also means 80% of the industry is still not involved and unlikely to act at the scale and pace required.

2. Global rules provide the best prospect for rapid and systemic impact. All countries acting in concert to prohibit certain problematic plastics and to unlock a circular economy for plastics at a global scale will have a profound and lasting impact. Applying binding, time-bound, and measurable obligations that all Parties to the legally binding instrument will be required to implement in their national jurisdictions will have a decisive impact, compared to waiting on a range of voluntary and often disparate actions taken at a national level.

3. Other multilateral environmental agreements have successfully established effective global rules. Examples include the Montreal Protocol on ozone-depleting substances (1987), the Stockholm Convention on persistent organic pollutants (POPs) (2004), and the Minamata Convention on mercury pollution (2017). These agreements have been recognised for their successful impact.

4. Governments, especially in developing economies, will benefit from global rules. Global rules would provide clarity and reduce implementation costs. The aggregate cost for every country to individually develop their own solutions would be significantly higher than if these activities were undertaken jointly. Developing a set of harmonised standards and requirements on issues such as product design, prohibited additives, or accepted polymers, would also allow joint actions without facing the risk of investors or businesses moving their operations elsewhere.

5. Businesses and investors will benefit from harmonised policy efforts. Global rules that avoid a patchwork of disconnected national solutions can help create a level playing field for an industry operating on a global scale. Because of the international nature of plastics products, packaging and waste trade, businesses will struggle to comply with diverging rules coming from 193 countries around the world. By harmonising regulatory standards, defining common metrics and methodologies, and supporting innovation and infrastructure

[7] Adapted and extended from WWF (2022): Towards a treaty to end plastic pollution. Global rules to solve a global problem

development, global rules on plastic pollution can help drive the transition to a circular economy for plastics at speed and scale and with lower costs of compliance for the industry.[8]

Examples of potential global rules for consideration in the Treaty

The instrument needs to address as a priority those plastics that have high leakage rates or are short-lived products that become waste quickly, including packaging. Such prioritisation is critical in order to develop effective core obligations and control measures. While focusing on those priority areas first, the Treaty should also provide the option to cover additional sectors or plastic applications over time, without having to amend the legal text of the instrument.

Based on our expertise of working with businesses in the packaging value chain, we believe there are various measures that have already gained broad support and that collectively will have a very significant impact. Therefore, **we suggest that the following areas should be prioritised for the consideration and development of potential obligations and control measures in a global treaty.**

Non-exhaustive list of potential global rules in an international legally binding instrument to end plastics pollution	
REDUCTION	• **Elimination of problematic plastics.** This should include definitions, criteria, and an initial list of polymers, additives and formats to be eliminated, with an ultimate aim to phase out all problematic plastic materials and applications, including the avoidance of hazardous chemicals. (see Appendix A for more detail) • **Limiting or reducing the total volume of plastics put on the market.** There are still important questions to be resolved around how to best do this, including whether to focus on per capita or aggregate, virgin or all plastic, production or consumption, by sector or total, and how to consider different stages of development. Yet what's clear is that, based on the best available evidence,[9,10] specific reduction targets and monitoring of volumes of different types of plastics put on the market need to be part of the solution.
CIRCULATION	• **All plastic packaging to be designed for a circular economy by a certain target date.** To be reusable, recyclable, or compostable in practice and at scale, harmonisation of packaging definitions, criteria, and design requirements are needed. (See Appendix B for more detail.) • **Promoting reuse and refill**, including mandatory obligations for applications where reuse is proven to work at scale (e.g. beverages, B2B packaging, home and personal care). • **Introducing minimum recycled content** from post-consumer plastic waste, differentiated by application and geography where relevant.

[8] WWF, Ellen MacArthur Foundation, and Boston Consulting Group (2020): The Business Case for a UN Treaty on Plastic Pollution

[9] Pew Charitable Trusts and SYSTEMIQ (2020): Breaking the Plastic Wave: A comprehensive assessment of pathways towards stopping ocean plastic pollution

[10] Eunomia (2022): Is Net Zero Enough for the Materials Production Sector?

CIRCULATION continued	• **Introducing mandatory Extended Producer Responsibility (EPR) schemes and ensuring their effectiveness.** EPR legislation is essential to fund the necessary infrastructure and systems, guide design decisions, establish consistent recycling definitions and standards, build sound and inclusive waste management systems, and to make the economics work for plastics recycling. (See Appendix C for more detail.)
PREVENTION and **REMEDIATION**	**This is not the focus of this submission**, but we consider the development of global rules relevant also to tackling the remaining hard-to-abate micro- and macro-plastic leakage into the environment that cannot be prevented via direct elimination, substitution, or circulation of plastics.

II. Implementation elements

This is not the focus of this submission but we will provide further input related to implementation measures and/or means of implementation for the international legally binding instrument to end plastic pollution at a later stage.

III. Additional input

Definitions, measurement, and reporting

Robust national reporting, with common definitions and metrics, will be vital for the effectiveness of the Treaty. Effective national reporting can generate an evidence base of consistent, reliable, and high-quality information to set baselines, monitor progress against the instrument's objectives, and strengthen accountability and compliance.[11]

There are existing voluntary corporate reporting efforts to learn from, many of them are aligned with and complementary to each other. They include:

- **The New Plastics Economy Global Commitment**, led by the Ellen MacArthur Foundation and UN Environment Programme, was launched in 2018. It has developed harmonised definitions and metrics to support the collection and reporting of data on plastic and plastic packaging at the individual company and government level. It is backed by more than 500 organisations, and businesses representing over 20% of the world's plastic packaging have used this reporting framework for four years. Industry-tested and approved reporting metrics include, among others, the volume and share of virgin (fossil-fuel) plastics, the volume and share of 'reusable', 'recyclable', and 'compostable' plastics, as well as post-consumer recycled content.[12] By making all this data publicly available, the Global Commitment has created unprecedented transparency on what progress towards a circular economy for plastics is made by whom and where it is still missing.

[11] UNEP/PP/INC.1.7 Plastics Science (September 2022), para 13
[12] New Plastics Economy Global Commitment - Commitments, vision, and definitions: Appendix II: common definitions

- **The partnership between CDP, The Pew Charitable Trusts, Minderoo Foundation, and the Ellen MacArthur Foundation** announced in September 2022 (further elaborated in a separate pre-INC2 submission by the four organisations). This partnership is expanding CDP's global environmental disclosure system to include plastics reporting, building on some of the key Global Commitment metrics. It leverages CDP's leading reporting platform (over 18,000 companies, worth 64% of global market capitalisation, are already disclosing through CDP) to expand plastics reporting to thousands more businesses. With expertise from the Ellen MacArthur Foundation and committed multi-year funding from Pew and Minderoo, CDP's objective is to build a plastics disclosure mechanism that is comparable to that already in place for climate change.[13] Questions and metrics on plastics will be added into CDP's annual disclosure questionnaires, beginning with a pilot in 2023. The full details of CDP's first year of plastics disclosure, including which companies will be requested to disclose initially, will be released soon, prior to the launch of the disclosure platform in April 2023.
- **WWF's ReSource: Plastic Footprint Tracker** measures the plastic footprints and waste mitigation efforts of corporate users, including members of the U.S. Plastics Pact[14] and Canada Plastics Pact.[15] It aims to align with the New Plastics Economy Global Commitment when it comes to metrics measuring what plastic packaging companies are putting on the market, while adding additional metrics on the 'fate' of the packaging after its use (i.e. is it reused, recycled, incinerated, landfilled, or leaked into the environment).

Government reporting as part of the instrument should build on and, where relevant, align with these existing voluntary efforts. It would be useful for all national governments to report annually and in a harmonised way on key metrics relevant to track progress towards the instrument's objectives and to create transparency on the global plastics system overall. Such metrics could include plastics produced, exported, used, collected, recycled, incinerated, landfilled, and leaked in the environment, by plastic type and application.

Ideally, governmental reporting under a future UN Plastics Treaty would be aligned with voluntary (or mandatory) corporate disclosures as needed, allowing them to feed into each other. To do this, alignment on key definitions, metrics, and methodologies will be required.

[13] CDP Plastic and CDP (2022): CDP expands global environmental disclosure system to help tackle plastic pollution crisis
[14] U.S. Plastics Pact
[15] Canada Plastics Pact

Appendix A:
Elimination of problematic plastic packaging

Clear starting points and stakeholder alignment already exist

There is already significant alignment regarding the plastic materials, formats, and components most frequently identified as unnecessary or problematic. The following list of criteria is used by the Global Commitment signatories (a group of 500 signatories including businesses representing over 20% of the global plastic packaging market and 50 governments) and members of the Plastic Pacts network[16] (national initiatives across five continents including in the Global South) to help identify problematic or unnecessary plastic packaging or plastic packaging components:

1. It is not reusable, recyclable, or compostable in practice and at scale.
2. It contains, or its manufacturing requires, hazardous chemicals that pose a significant risk to human health or the environment (applying the precautionary principle).
3. It can be avoided (or replaced by a reuse model) while maintaining utility.
4. It hinders or disrupts the recyclability or compostability of other items.
5. It has a high likelihood of being littered or ending up in the natural environment.

Additionally, members of the Consumer Goods Forum (CGF) have aligned on Golden Design Rules (GDRs) for packaging, including a largely overlapping list of 'Problematic Elements' to be eliminated from packaging. Below is a non-exhaustive table with plastics types and items most frequently identified* as unnecessary or problematic by relevant voluntary initiatives:

	Rationale quoted by selected stakeholders	% of GC signatories[17] **	No. of Pacts[18]	CGF GDR[19]
Materials/Additives				
ePS (Expanded Polystyrene) packaging	CGF GDR/Kenya Pact: Too uncommon to make recycling economically viable. The material is rarely sorted from household waste and recycled. Most of the material is incinerated and landfilled.	80%	7	x
PVC (Polyvinyl chloride) packaging	CGF GDR/UK Plastics Pact/South Africa Pact: Not recyclable and acts as a contaminant if it enters the recycling system. Its presence negatively affects the quality of other recyclates.	76%	9	x
Carbon black pigment	CGF GDR/French Plastics Pact: Undetectable in the sorting process when using Near Infra-Red (NIR) technology, which prevents it from being recycled. Most of the material is incinerated and landfilled.	70%	5	x
PVDC (Polyvinylidene	CGF GDR/Poland Pact: The presence of these materials	61%	4	x

[16] Plastics Pacts that have published a list of problematic and unnecessary plastic types and items: South Africa, United States, United Kingdom, Kenya, Chile, Portugal, Poland, France, and Canada
[17] Global Commitment Progress Report 2022
[18] Plastics Pact Network page (with the link for each Plastic Pact website)
[19] Consumer Goods Forum: Golden Design Rules

	Rationale quoted by selected stakeholders	% of GC signatories[17] **	No. of Pacts[18]	CGF GDR[19]
Materials/Additives				
chloride, or polyvinylidene dichloride)	in packaging interferes with the recycling of other plastics, negatively affecting the quality of other recyclates.			
PS (Polystyrene) Packaging	CGF GDR/UK Plastics Pact: Too uncommon to make recycling economically viable. The material is rarely sorted from household waste and recycled. Most of the material is incinerated and landfilled.	56%	8	x
Multilayer materials (multimaterial)	Portugal Pact: These are packages containing several layers of plastics, often of different and incompatible types. It is highly difficult to recycle.	44%	5	
PETg (Polyethylene terephthalate glycol)	CGF GDR/Kenya Pact/Poland Pact: Acts as a contaminant if present in the PET recycling stream, hindering the recyclability and value of PET materials.	43%	5	x
Oxo-degradable packaging	CGF GDR/South Africa Pact/Kenya Pact: Fragments into microplastics, contributing to plastic pollution. Not suited for long-term reuse, recycling at scale, or composting.	Not accounted***	7	x
Formats				
Single-use plastic cutlery/serveware	South Africa Pact: High leakage into the environment and very unlikely to be recycled.	64%	5	
Single-use plastic straws	UK Plastics Pact/Kenya Pact/Portugal Pact: High leakage into the environment, their small size prevents them from being recycled.	31%	5	
Single-use plastic stirrers	Kenya Pact: High leakage into the environment, their small size prevents them from being recycled.	Not accounted***	5	
Single-use cotton buds with plastic stems	UK Plastics Pact/Kenya Pact: High leakage into the environment.	Not accounted***	4	

**At least 30% of GC signatories / at least 4 Plastics Pacts / complete list from GDR*
***Percentage of GC signatories eliminating/reducing the category, out of the ones currently reporting having the category as part of their portfolio*
****Not accounted by industry members, but government signatories are reporting bans on these categories*

In addition to the voluntary initiatives above, many governments have introduced legislation that feature single-use plastic bans, including, among many others, the European Union, Kenya, and Chile.

The Treaty must create common definitions and criteria for countries to phase out problematic plastic packaging

The instrument should strengthen the current voluntary and/or fragmented efforts towards elimination of problematic plastic packaging by introducing harmonised regulatory standards and common definitions across markets.

Voluntary efforts, while important to show what is possible and create alignment, quickly hit a ceiling in terms of the share of the market that signs up, and ultimately do not guarantee the elimination of problematic plastic packaging at global scale. Fragmented policies across

countries are more costly for governments to separately develop and enforce, and for businesses to comply with.

Therefore, building on the initial list of problematic plastic items identified above and turning it into a globally consistent regulatory approach towards phasing them out would be an important first step.

The instrument should go beyond the voluntarily identified list of problematic items and more comprehensively address hazardous chemicals.

A large variety of different chemicals are used in plastic packaging. There is evidence that some of these chemicals have hazardous properties, and for other chemicals there is a lack of publicly available toxicity data, raising concerns about their potential impact on human health and/or the environment. Elimination efforts should aim to avoid hazardous chemicals to ensure that plastic packaging is safe to be made, used, reused, and recycled.

While hazardous chemicals are part of the above criteria for identifying problematic plastics, this is not yet sufficiently reflected in the example list above. Other organisations who have specific expertise on hazardous chemicals need to be consulted in the Treaty process to ensure these are fully considered also for other applications beyond packaging.

In addition, while the criteria at the start of this chapter identify as problematic all types of plastic packaging that are not reusable, recyclable, or compostable in practice and at scale, the table above covers only a fraction of those.

Less than 29% of all plastic packaging put on the market is currently recyclable in practice and at scale.[20] The remaining 71% that is currently not recyclable does not necessarily all need to be eliminated *today*, but the instrument should contain a mechanism so that if, after a defined period, solutions are not found that are compatible with circular design rules for packaging (see Appendix B), these types of packaging go on the elimination list.

As an example, business-to-consumer **flexible plastic packaging** — e.g. sachets — is the fastest-growing packaging category, but currently not recyclable in practice and at scale.

Some governments are already taking measures that go beyond banning materials and formats identified in the above mentioned list:

- The 2022 proposal for an EU-wide Packaging and Packaging Waste Regulation (PPWR)[21] requires that if a certain packaging category is not recyclable in practice and at scale by 2035, it cannot be put on the EU market anymore.
- The Chilean government recently approved a bill[22] to limit the use of a number of single-use products, including sachets for some industry categories.

[20] Calculation is based on plastic packaging weight data from Wood MacKenzie and recyclability is assessed according to the Global Commitment definition — which requires that recycling is proven to work 'in practice and at scale' — and using the suggested thresholds and outputs of the 2022 New Plastics Economy Recycling Rate Survey. For more information see chapter 3 ("Reusable, recyclable, or compostable") and Appendix I of the 2022 Global Commitment Progress report

[21] European Commission: Proposal for a Regulation on packaging and packaging waste

[22] Chilean Ministry of Environment: Law 21368

Appendix B: Circular design rules for packaging

The instrument must include rules on design for circularity

The elimination of types of plastic packaging that are commonly identified as problematic is essential (see Appendix A), but alone it is not enough to end plastic pollution. **The Treaty should also set a time-bound objective to ensure that all plastic packaging put on the market is designed for a circular economy.** This includes:

- **Making reusable packaging a priority** by setting reuse targets for different packaging categories based on common standards, definitions, and measurements to enable and incentivise the scaling of reuse and refill solutions.
- When it is not possible to eliminate packaging, any **packaging must be recyclable or — where relevant — compostable, in practice and at scale** (see below).
- **Design requirements and disclosure of information on chemical composition** is key to ensure that plastic packaging is safe to be made, used, reused, and recycled.

Recyclability must go beyond just 'technical recyclability'

Out of all packaging circularity terminology, recyclability is perhaps the most ambiguous term.

The first step is to ensure that plastic packaging is 'designed for recycling' or 'technically recyclable'. Many guidelines already exist for this, and while they have some differences, they are broadly aligned across the world.

A few examples of these guidelines include: The Consumer Goods Forum Golden Design Rules, The Association of Plastic Recyclers (APR) Design Guide, China National Resources Recycling Association: 'General guidelines for the evaluation of plastics products', Indian Plastic Pact Design Guidance, Australian Government: National Plastics Plan and Plastics Recyclers Europe RecyClass Guidelines.

This high level of alignment on what 'technically recyclable' means is an important starting point, but is not enough by itself. It also needs to be proven '**in practice**' and '**at scale**' that a packaging type or format can be recycled.

'At scale' means that the proof needs to be more than a lab test, pilot, or a small region. It means that recycling of a certain packaging type needs to be proven to work in practice in multiple regions, collectively representing a significant and diverse geographical area and population, so that the practice is replicable.

'In practice' means that within each of these regions, it is proven that the collection, sorting, and recycling system (from consumer to recycled material) achieves recycling a significant share of all packaging of that type put on the market.

This 'in practice and at scale' approach is already used by more than 130 large businesses[23] in the Global Commitment to assess the recyclability of their plastic packaging portfolio. In the Global Commitment, and in a 2025 timeframe, the test and threshold to assess if the recyclability of a packaging design is proven 'in practice and at scale' is: does that packaging

[23] Global Commitment 2022, Signatory Reports

achieve a 30% post-consumer recycling rate in multiple regions, collectively representing at least 400 million inhabitants?

The EU proposal for a Packaging and Packaging Waste Regulation (PPWR) also acknowledges the need to go beyond just design for recycling. It sets an objective for all packaging to be recyclable 'at scale' by 2035, meaning packaging is collected, sorted, and recycled through infrastructure covering at least 75% of the Union population.[24]

The Treaty should set a time-bound objective for all packaging to be recyclable or compostable in practice and at scale. Design standards to ensure recyclability are an important starting point, but the Treaty needs to go further and create a harmonised understanding of 'recyclability', reinforcing the principle of 'in practice and at scale'.

Compostable plastic packaging is not a blanket solution

Substitution to compostables should not be undertaken in place of eliminating plastic packaging or scaling reuse solutions. Compostable packaging relies on 100% virgin material input and must be considered as 'single-use' in the same way that conventional plastic or paper is.

Replacing conventional plastics with compostable plastics is not necessarily beneficial from an environmental point of view, except for a few distinct applications that have been identified so far. These include items that facilitate the collection of organic materials, items frequently found contaminating organic waste streams (e.g. tea bags, fruit stickers) and food packaging likely to remain highly contaminated with food (e.g. sauce sachets).[25]

[24] European Commission: Proposal for a Regulation on packaging and packaging waste
[25] Ellen MacArthur Foundation: Substitution to compostable flexibles: Design and circulation

Appendix C: Extended Producer Responsibility (EPR)

Mandatory EPR is a necessary part of the solution to manage packaging waste and reduce plastic pollution

Mandatory, fee-based Extended Producer Responsibility (EPR) schemes are the only proven way to secure the required dedicated, ongoing, and sufficient funding to cover the net cost of the collection, sorting, and recycling of packaging. As such, they represent a necessary part of the solution to manage packaging waste and reduce plastic pollution.[26]

The collection, sorting, and recycling of packaging waste is typically not profitable and requires additional funding to operate. Through EPR legislation, all industry players introducing packaging to the market are required to provide funding dedicated to collecting and processing their packaging after its use. The alternatives – relying on funding from public budgets or from voluntary contributions alone – are unlikely to scale to the extent required and fall short of ensuring a long-lasting shift to a circular economy in the packaging sector.

In many geographies the collection of packaging and other municipal waste depends on people working in precarious conditions without basic social and labour protection. Socially inclusive EPR legislation can provide opportunities for the informal sector, while poorly designed schemes could present threats to the livelihoods of the waste picker community, for example by limiting their access to valuable waste streams.[27]

There is strong and growing support for mandatory EPR

There is now broad recognition by many different stakeholder groups that EPR is a necessary part of the solution to packaging waste and pollution. In 2021, more than 100 leading businesses from across the packaging value chain publicly endorsed EPR as a necessary part of the solution to manage packaging waste, recognising that without EPR policies "packaging collection and recycling is unlikely to be meaningfully scaled and tens of millions of tonnes of packaging will continue to end up in the environment every year". EPR's crucial role in improving waste management has also been acknowledged by many environmental NGOs and other civil society organisations.

Building on more than 30 years of experience, mandatory fee-based EPR schemes have now been implemented in many countries across the world. In recent years, legislation has emerged across all continents, including countries in South America, Southeast Asia, and Africa. Countries like the United Kingdom that previously adopted an alternative approach, such as the Packaging Recovery Notes (PRN), are now moving towards implementing mandatory, fee-based EPR. Other countries have progressively improved and expanded their already existing schemes.

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[26] EPR schemes can be applied to product categories other than packaging. This document focuses on EPR for packaging only.
[27] WIEGO (2022): Extended Producer Responsibility and Waste Pickers; Global Alliance of Waste Pickers: Position on EPR (2021)

Criteria for determining what constitutes an effective EPR scheme

To address important limitations and draw lessons from the implementation of EPR schemes to date, several reports and publications by different stakeholder groups have highlighted key considerations for what an effective and inclusive EPR scheme looks like.

After a thorough review of these existing publications, we have identified the key elements to take into consideration when designing effective EPR schemes:

1. **Scope of covered packaging types and materials**: it is important to clearly define what is considered as packaging, and to ensure the scope of covered packaging is comprehensive both in terms of packaging types as well as packaging materials.
2. **Scope of activities, and granular, ambitious and time-bound targets**: it is crucial to ensure that it is clear to all stakeholders what activities funding should be raised and used for, and what outcomes need to be delivered by when. Targets should be defined in a consistent way for all countries, while timelines to achieve them might differ and be defined starting from each country's individual baseline.
3. **Roles and responsibilities of stakeholders**: to ensure successful implementation, any EPR scheme needs to clearly define who bears what part of the financial and operational responsibilities to fulfil the objectives and targets. It is also important to consult and include all stakeholders involved, including the informal sector, both in the design phase and implementation phase of the EPR scheme.
4. **Mechanisms to ensure robust and transparent reporting, monitoring, and enforcement**: failure to provide consistent enforcement undermines the performance of EPR schemes and creates unfair advantages for those who do not meet their obligations. Data and constant monitoring are needed to evaluate performance and determine what adjustments need to be taken.
5. **Waste prevention / circular design measures**: several countries have introduced, or have started looking to introduce, changes to their EPR schemes to further strengthen the incentives for upstream solutions. These include the introduction of eco-modulation of fees and reusable packaging targets.

Taking into account the elements above, the international legally binding instrument should provide global support for countries to develop and enforce effective EPR legislation, while acknowledging the need for adaptation to the local context. The instrument should determine the core provisions and key principles to establish socially inclusive, harmonised, and transparent EPR schemes.

Selected publications from different stakeholders highlight a broad level of alignment on EPR as a crucial mechanism:

- Ellen MacArthur Foundation EPR Statement and Position Paper: unites more than 150 leading businesses and other organisations from across the packaging value chain behind the message that EPR is a necessary part of the solution to packaging waste and pollution.
- WWF basic principles: establishes what an effective EPR scheme for packaging looks like. WWF has developed this set of 15 basic principles for designing and implementing effective EPR frameworks including general considerations, financing and controlling, scope and inclusivity.

- Global Waste Picker Alliance and WIEGO put together best practices and basic principles on inclusivity, examining how EPR presents unique opportunities as well as threats to the informal sector community. They find that the success of an EPR system depends on an effective collection mechanism, and waste pickers are key to the attainment of material recovery targets.[28]
- Consumer Goods Forum (CGF) paper: highlights the optimal design of EPR programmes to improve the performance of waste management and recycling systems. Their key principles for optimal EPR are: Strong environmental outcomes; Efficient, cost-effective, transparent, and accountable; Shared financial responsibility; Convenience for consumers; Long-term financial sustainability; Producers' capability to secure material for closed-loop recycling; Social inclusiveness and fairness, especially in transitional markets with informal sector involvement.
- PREVENT Waste Alliance EPR Toolbox: the EPR Toolbox developed by the PREVENT Waste Alliance is a collection of internationally relevant knowledge on the topic of EPR for packaging. It provides concrete examples and case studies on the implementation of EPR schemes. Its aim is to enhance the development of EPR systems worldwide and could be used as a starting point for knowledge exchange under the Treaty.

The Treaty must support the introduction of mandatory Extended Producer Responsibility (EPR) schemes and ensure the effectiveness of EPR legislation

Over time, EPR should become mandatory in every country around the world to reduce the amount of mismanaged packaging waste, and promote circular economy solutions in the packaging sector.

The global plastics treaty should provide **key principles and criteria** for packaging EPR schemes in terms of: the scope of covered material; the scope of activities and targets to be achieved; roles and responsibilities of stakeholders involved; and reporting, monitoring, and enforcement mechanisms.

In addition, the Treaty presents a unique opportunity to provide the necessary support for setting up the legislative framework as well as enabling its subsequent enforcement. This could be achieved through a **global EPR hub** to help governments develop and implement effective legislation, and facilitate knowledge exchange across countries as recognised by several Producers Responsibility Organisations (PROs) and EPR organisations.[29]

Mandating EPR at a global level, providing key principles and criteria, and a knowledge sharing platform for EPR implementation, would also enable better global data collection and transparency to support decision-making processes, and ensure harmonisation across countries – which is critical to manage packaging of globally traded products, and to incentivise upstream/midstream solutions and better packaging design.

Harmonisation of EPR schemes globally would also be beneficial to business, including multinational corporations dealing with a multitude of different national EPR legislations, as well as SMEs who conduct some international trade, but do not have the resources and capacity to comply with the current complex legislative landscape.

[28] WIEGO (2022): Extended Producer Responsibility and Waste Pickers
[29] CITEO Integrate EPR within the international Plastics treaty - pre INC-1 submission