

BUILDING AN EFFECTIVE EXTENDED PRODUCER RESPONSIBILITY SCHEME FOR ASIA

White Paper





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1.EXECUTIVE SUMMARY

FIA's white paper highlights the key elements required for an Extended Producer Responsibility (EPR) system for packaging across countries. While policy on paper is not a panacea to waste management issues, a well-designed and comprehensive approach to an EPR will allow for operational details and responsibilities to be broken down and level the playing field across all stakeholders. This would also address the issues of material flows, incentives or financial support.

This white paper will analyse global and regional best practices based on key design elements, and provide policy recommendations. Additionally, it will consolidate some of the EPR schemes in place by selected countries in Asia (Japan, Vietnam, Indonesia, Thailand, Philippines & India) as well as Canada, as other examples, to provide insights on their key framework and working mechanisms of the relevant Producer Responsibility Organisations (PRO)s. With more mandatory EPR schemes to be introduced across Asia, it is imperative that fair and effective EPR systems suited to the local context are implemented.





2.BACKGROUND

EPR has been defined as an environmental policy tool in which a producer's responsibility for a product is extended to the waste stage of that product's life-cycle¹². EPR systems for packaging are different in each country but have common basic principles—namely that obliged companies pay financial contributions for the types and amounts of packaging they put on the market in a specific country. These financial contributions would serve as cost coverage for the EPR system. In most cases, an established collective EPR system is managed by a local PRO. The main aims of an EPR are the following:

Improve resource efficiency through resource recovery and waste management





Ensure higher rates of collection and recycling

Provide incentives for eco-design.3

Cover waste

products

collection and

recovery costs of

EPR has been commonly associated with Europe or the European Union where the concept is mature, with prominent legislations such as the Waste Framework Directive and the product-specific Directives on Waste Packaging in place. However, several countries have also implemented EPR legislation, often taking the European rules and concepts as a framework or conceptual basis. For instance, EPR is found in North America (USA, Canada), while Asia has mostly, thus far, been implementing EPR for electronic waste⁴.

The growing concern on marine plastic pollution, low recycling rates and climate change in recent years have resulted in more countries in Asia mandating EPR schemes for packaging and container waste. Currently, Asian countries are at different implementation stages. For instance, Vietnam and India have begun their mandatory EPR Scheme as of early 2022, while Indonesia is still in discussion over regulatory enforcements for their EPR scheme, despite having a legal framework.

Singapore has begun its mandatory packaging reporting (MPR) in April 2022 as a foundational step for the introduction of EPR in 2025. In the Philippines, the Extended Producers' Responsibility (EPR) Act has lapsed into law as of 23 July 2022. The Implementation Rules and Regulations (IRR) is expected to be released by the end of 2022.

SUMMARY OF EPR STATUSES IN SELECTED **COUNTRIES IN ASIA & OTHERS:**

The table below summarises the EPR status for selected countries and will cover the following areas for the selected countries:

Producer Responsibility Organisations (PRO)

The national or major PROs for packaging in each nation have been identified and consolidated respectively.

For Canada that have many existing PROs for each state, the PRO was chosen based on how large and/ or well-established it is. For example, the first PRO established in the nation/ province.



Working Groups/ Statutory Boards

In countries such as Thailand, Vietnam, India, the geographical and political landscape will likely result in the formation of several PROs, unless individual sectors take on the responsibilities on their own. As they are still in early stages of implementation, working groups have been established to manage operational details and ways of working. In some cases, statutory boards are in charge of collating data reported on packaging-related issues⁵.

OECD (2016). Extended Producer Responsibility: Updated Guidance for Efficient Waste Management. OECD Publishing. Paris. Retrieved from: https://doi.org/10.1787/9789264256385-en.
 United Nations / Basel Convention. (2019). Revised draft practical manual on Extended Producer Responsibility. Section II. UNEP/CHW14/5/Add.1. Adopted by the 14th Meeting of the Conference of the Parties of the Basel Convention on the Control of Transboundary Movements of Hazardoux Wastes and Their Disposal. Retrieved from: http://www.basel.int/frivenenceontheParties/ Meetings/CCD14/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726/2014/Addi/726





Country	EPR Status	Producer Responsibility Organisation(s)
THAILAND	Consulting stage; EPR implementation is mentioned in the Action Plan on Plastic Waste Management (2020-2022). Pilots on EPR initiatives in provinces have begun.	To Be Confirmed
VIETNAM	In-effect; Waste treatment obligation has taken effect in January 2022, while recycling obligations will legally start 01 January 2024.	<u>PRO Vietnam</u>
INDONESIA	In-effect; A legal framework is in place, but an enforcement system to ensure compliance of the EPR scheme since Regulation75/2019 is still in discussion. Developed EPR Concepts are to begin in 2023, although date has yet to be confirmed.	Indonesia PRO (IPRO)
JAPAN	Well-established; Municipals take responsibility of collection, sorting & transport, local authorities contract companies to collect sort & recycle.	<u>The Japan Containers</u> <u>and Packaging</u> <u>Recycling Association</u> <u>(JCPRA)</u>
PHILIPPINES	In-effect; Lapsed in Law as of 23 July 2022 and the Department of Environment and Natural Resources (DENR) has confirmed that the effectivity of the law began on 13 August 2022.	To Be Confirmed
(B) INDIA	In-effect; The new guidelines have taken immediate effect as of 18 February 2022.	Several PROs, but all producers must report to <u>Central Pollution</u> <u>Control Board</u> .
CANADA (British Columbia)	Established; Single organisation in charge of packaging. It arranges for the collection and processing of residential recyclables.	<u>Recycle British</u> <u>Columbia (RBC)</u> é

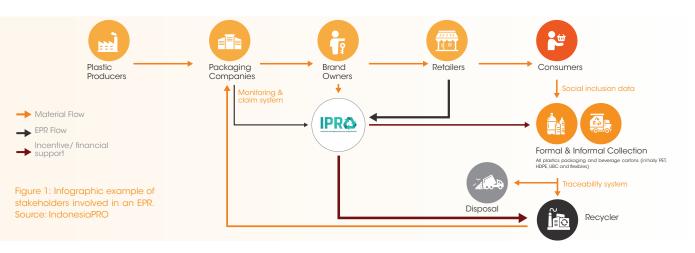


3.KEY DESIGN PARAMETERS FOR AN EFFECTIVE EPR

This section will highlight the fundamental design elements that an EPR system should include for a set-up for countries in Asia. Taking reference from Indonesia's model, Figure 1 below illustrates an example of all players in an EPR system, highlighting the interconnectivity of how packaging and responsibilities are distributed throughout the system. As an all-inclusive system that involves manufacturers, businesses, consumers, recyclers and waste management, the PRO will take charge of monitoring the

operational details to ensure compliance amongst stakeholders.

The three main flows identified are: Material, EPR and Cash flow. Material highlights how packaging is passed through the chain, while EPR shows the main stakeholders involved with the collection and recycling operations. Cash flow illustrates how EPR funds are used by the Producer Responsibility Organisation.



With this, five key design elements have been identified to ensure a strong foundation for an EPR system. They are:

- Legal Policy & Regulatory Framework
- Stakeholder Involvement & Responsibility
- Establishing a Collection System or PRO
- Cost Coverage
- Incentives for Eco-design

LEGAL POLICY & REGULATORY FRAMEWORK

A legal framework at a national level must be established, with guidelines clearly outlined for producers. In countries where an EPR scheme is made mandatory, the framework must be specific, unambiguous and transparent. It should set the following standards for:

- Collection and recycling targets that are measurable and achievable
- Obligations for companies impacted
- Allowance for the formation of PROs
- List organisations that will be involved with data reporting, monitoring and evaluation

- Well-defined scope of packaging (e.g., materials and packaging types)
- Review period to measure performance and effectivity.

There should be coherence between the EPR framework and existing policy instruments developed to reduce pollution, e.g., bans, waste taxes, product and material taxes, product standards, labelling, voluntary agreements, procurement policies, and information and awareness campaigns. Targets for litter prevention and mitigation, specific outreach and education around achieving these goals (not just recycling targets) should be addressed as well.

Additionally, the framework should also take place in consultation with all stakeholders along the packaging value chain. Direct engagement sessions will ensure a transparent and level playing field amongst obliged companies, while facilitating implementation in later stages.

An EPR system varies in how it will be funded and organised, given that it operates alongside other waste management schemes. To ensure that companies are compliant while tracking recycling targets, explicit enforcement mechanisms in the forms of fines or penalties might be required.

STAKEHOLDERS INVOLVEMENT & RESPONSIBILITIES

Aside the scope of the framework, the roles of stakeholders must be clearly set out and the management of the scheme should correspond with how financial responsibilities are assigned.

The government plays an integral role to identify the respective stakeholders who may bear part of the financial and operational responsibilities to fulfil quantified targets for collection and recycling of waste. As such, the definition, responsibilities and obligations of `producers' and municipalities would have to delineated. To execute the operational details of the PRO, a public-private focus working group that takes a common view on a PRO system design can also be formed to deliver a regulatory and institutional blueprint & timeline for a regulated PRO system.

Businesses (e.g., retailers, distributors and manufacturers) represent the interface between the private sector and consumers. In certain EPR systems, retailers are obligated to take back packaging while also educating customers about the handling of packaging waste⁷. Given that consumers also play a significant role for a EPR, consumer awareness successful and education must be included in the EPR system, so as to ensure they are updated by the new strategies or practices targeted to reduce waste.

ESTABLISHING A COLLECTION SYSTEM OR PRODUCER RESPONSIBILITY ORGANISATIONS (PROS)

Producers can choose to individually organise their own system (Individual Producer Responsibility—IPR), collective system or a Responsibility—CPR). (Collective Producer However, producers can also decide to collaborate and transfer their responsibility to a PRO. Industry-owned PROs can be mandated by the obliged industry to take responsibility for collection or take-back, sorting and recycling, thus shifting the individual responsibility to a collective one. The mandate should be issued by competent authorities in the form of an accreditation or a license.

The PRO should ideally be not-for-profit as there will be no conflicts of interest. Due to the nature of this structure, they are thus more likely to maximise environmental, economic and social benefits. Therefore, non-profit systems would deploy a holistic approach to waste management, embracing both waste prevention and recycling.

However, in developing countries based on their political landscape, a government-led PRO might be effective in collecting fees or dealing with recycling operations. In such cases, these operations would be considered as government-run product stewardship programmes rather than a full-fledged EPR. For instance, Taiwan initially had an EPR system that relied on PROs when it first began. However, it was shifted to a producers-pay-government-disburses model due to difficulties arising from false data reporting, financial scandals, lack of transparency, and poor design of PRO responsibilities⁸.

COST COVERAGE

EPR schemes should cover the total costs associated with end-of-life products. This includes the costs of separate collection, sorting and treatment operations, including the disposal and transport of waste, particularly in the case of remote or rural areas, and excludes the sales of recovered materials. External costs related to administration, waste prevention actions, public information and awareness raising as well as enforcement and surveillance of EPR systems must be budgeted for as well. With the EPR system requiring a large sum for initial and on-going investments costs, information provision could take a collaborative approach from both private-public sector for wider reach and higher success rate. For instance, Canada has "Partial EPR" programmes which are jointly managed/ financed by consumers, government and industry in their initial phase, before gradually transitioning to a full-fledged EPR⁹. As EPR is still a new concept in some countries, this might be more effective for long-term success, given that some governments in Asia have wider reach, influence and trust with citizens.

https://wwfint.awsassets.panda.org/downloads/how_to_implement_epr__briefing_for_government _and_business.pdf ⁸ OECD. (2016). Extended Producer Responsibility: Updated guidance on efficient waste



⁷ WWF. (2020). How To Implement Extended Producer Responsibility (EPR): A Briefing for Governments and Businesses. Retrieved from:

⁸ OECD. (2016). Extended Producer Responsibility: Updated guidance on efficient waste management. Retrieved from:

 $[\]label{eq:https://www.oecd.org/environment/waste/Extended-producer-responsibility-Policy-Highlights-2016-web.pdf$

[°] Smart Prosperity Institute. (2019). Extended Responsibility Responsibility in Canada. Retrieved from: https://institute.smartprosperity.ca/sites/default/files/eprprogramsincanadaresearchpaper.pdf



INCENTIVES FOR ECO-DESIGN

According to OECD, there is a consensus that existing EPR schemes have helped to improve packaging design¹⁰. As such, the EU has indicated its support for an "advanced" fee modulation, or Eco-modulation of EPR fees, which rewards packaging designed for recycling/ reusing with lower fees.

A successful EPR should incite producers to incorporate product designs that enables easier reuse and recycling of products over a period of time, in order to reduce waste management costs as well as to develop recycling and recovery channels. However, the recycling process is often complicated by packaging design due to reasons such as multi-materials and hard-to-recycle packaging. To circumvent this, eco-design strategies will need to focus on eliminating unnecessary plastic packaging and increase the recycling value in various types of plastic. Recognising this, the Consumer Goods Forum (CFG) developed <u>nine golden design rules</u> for optimal plastic design, production and recycling.

In Asia, where EPR schemes have just begun, an advanced modulation fee would be incorporated in a much later implementation stage. However, incorporating mechanisms that would aid in facilitating incentives in eco-design innovations should be considered in consultation with the industry as part of the regulatory framework, so as to prepare the industry for future implications.





4.CHALLENGES APPLYING EPR IN ASIA

Many countries in Asia are trying to emulate EPR models that were developed for and by industrialised countries. This section will identify and explore the major challenges of applying EPR in developing countries unique to Asia. In short, they include limited knowledge capacity, the integration of the informal waste sector, high transportation cost, lack of waste collection services in rural areas and an overall lack of funding for recycling infrastructure.

BUILDING KNOWLEDGE CAPACITY AND SETTING PRACTICAL TARGETS

Developing countries must evaluate and set that reflect local and priorities national characteristics. The application of EPR should be adjusted to not only its level of economic development, but also factors such as its capacity for environmental policy design and enforcement, market structure for products and recyclables, and stakeholder interrelationships (central and local government, private sector, community, and the informal sector). Practical and achievable targets for recycling and resource recovery need to be set, with active communication with businesses impacted on goals that are feasible and attainable in light of constraints posed by countries' landscape.

With most of Asia just beginning EPR implementation and the lack of experiences from domestic stakeholders across the board, grace periods for implementation time extension should be given if regulatory details have been delayed, and heavy fines should be avoided at least in the first 12-18 months. This is to allow for a reassessment and set a baseline standard for a reasonable trajectory before a full-fledged EPR system takes effect.

ADDRESSING THE INFORMAL WASTE SECTOR

In many developing countries, there exists informal waste workers who manage the recyclable waste. Recyclables from waste bins on the road and dumping sites are picked up by informal waste pickers, which go to waste collection workers during collection and transportation. After that, the recyclable waste is sold to junk shops on the way to the dumpsite. As such, the informal sector carries out collection, sorting and recycling of specific packaging types which operates in almost every stage of the recycling process.

This is parallel to the operational responsibilities of a PRO. According to OECD, the EPR system has created a level of competition between the informal waste pickers and PROs¹¹. However, waste collected and sorted by the informal sector may fall short of quality standards required of washing and pelletising during the recycling process, eventually affecting the yield of recycling.

LACK OF ACCESSIBILITY FOR WASTE COLLECTION IN RURAL AREAS

A 2020 report by World Economic Forum (WEF) estimated the recycling rate of plastics waste in megacities, medium and small cities, rural areas and remote areas. The research shows that the recycling rates in megacities reached up to 20 per cent, whilst in the remote and rural areas were only at 0 to 5 per cent accordingly. Low inhabitant densities and the lack of accessibility to these places are some contributing factors to why these places are often overlooked under a formal waste management plan of a country.

In addition, the cost of transporting recyclable waste to factories, usually situated in industrial areas, tend to be high. Households in rural areas are also more dispersed than in cities as well, with such distances further adding to the high cost of transportation. Given that the EPR system would relegate full responsibility to producers to incur these costs, increased financial and administrative burdens would discourage compliance¹².

LACK OF FUNDING FOR RECYCLING **INFRASTRUCTURE**

Government budgets allocated to recycling facilities and infrastructure have been generally insufficient to cover the investment and operation costs associated with developing proper waste collection, sorting, processing, etc. This can be due to a severe underestimation of costs, or even due to other national agenda and priorities that take precedence. Moreover, funding allocations may vary from year to year according to the economy. In developing countries, even if a local government allocates operational financing to waste management systems that would be considered sufficient by international standards, the waste and recycling sector outcomes often lack in showing expected results. This is because of the severe deficit in infrastructure investments and technical capacity. Furthermore, a lack of confidence in the areas of public governance, operational finance, and management capacity are significant barriers for a broader and deeper involvement by the private sector¹³. The lack of enforcement mechanisms to implement regional or national action plans on solid waste management, waste collection/segregation and a government finance regulatory framework are also major barriers to achieving a successful EPR.

¹¹ OECD. (2016). Extended Producer Responsibility. Guidance for efficient waste management. Retrieved from: https://www.oecd.org/environment/waste/Extended-producerresponsibility-Policy-Highlights-2016-web.pdf ¹² The World Bank for Reconstruction and Development, Project Approist Decument. Retrieved from: https://documentsl.worldbank.org/curated/en/08321575660426737/pdf/Indonesio-Improvement-of-Solid-Waste-Man agement-to-Support-Regional-and-Metropolitan-Cities-Project.pdf ¹¹ The World Bank. (2019). Improvement of Solid Waste Management to Support Regional and Metropolitan Cities (P15245). Retrieved from: https://documentsl.worldbank.org/curated/solid/solid/solid/approx/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/solid/so

https://documents1.worldbank.org/curated/en/608321575860426737/pdf/Indonesia-Improvement-of-Solid-Waste-Man agement1-oSupport-Regional-and-Metropolitan-Cities-Project.odf



FREE-RIDING IN THE SYSTEM

Free-riding refers to situations where some producers do not adequately comply with their obligations under EPR. For instance, producers do not finance the collection and recycling of their products up to the level required or do not provide accurate data about the quantities of products put on the market. These situations arise more frequently in collective schemes, because responsibility is shared and it is easier for producers to circumvent their respective obligations.

Governments will need to understand the market share of registered producer and volume produced by unregistered producers and smugglers. By understanding the market share, the government can decide the effective measure to address this challenge. If the market share is large, the EPR system will be required to adopt financial measures to collect and treat such 'orphan'

products. In Singapore, a Mandatory Packing Reporting (MPR) is in place as a foundational step towards implemented an EPR. Under this obligation, companies are required to submit annual reports on specified packaging that is imported or used in the country, as well as submit annual plans for packaging waste reduction within their business operations. This framework acts as a deterrence to free-riders as well, given that data records can be used as points of comparison

The OECD report on EPR found that the challenges of free-riding are often present during the first year of the EPR scheme-most countries in Asia are in the beginning stages of implementing an EPR system, and will likely face this issue as such¹⁴.

¹²The World Bank. (2019). Improvement of Solid Waste Management to Support Regional and Metropolitan Cities (P157245). Retrieved from: https://documents1.worldbank.org/cuarted/en/68832157586042937/pdf/indonsi-in-mprovement-of-Supid-Mastel-Management-to-Support-Regional-and-Metropolitan-Cities-Project.pdf "PIA has done a global landscape review on EPR, of which includes the current statuses of countries in Asia underliking EPR. The document is currently only accessible to its membership. If interested, do contact <u>justin ng@toordindustry.or</u>



5.POLICY RECOMMENDATIONS FOR ASIA

In reference to the key design elements to overcome the challenges, FIA proposes the following overarching policy recommendations within a mandatory legal framework for a successful and holistic EPR scheme.

Policy Recommendation	Description
01 Definitions on producers and scope of products	 Definitions should include 'producers' to maintain a level playing field between companies importing packaged products (importers) and companies that package their products within the country concerned (domestic), the type of product, categories/sub-categories where appropriate, materials, fees and type of consumer (e.g., household and/or commercial/business waste All producers should face the same requirements/ obligations, and address if small and medium-sized enterprises are to be impacted or excluded.
02 Definitive roles and responsibilities	 Responsibilities have to be consistent with the structures of the existing or planned EPR system and its various components since the way systems are set up and operate in practice vary between countries. All stakeholders (for collective responsibility) within the chain that must have their roles be addressed include: Raw material suppliers, manufacturers, and converters of packaging material Producers, and importers of packaged goods (obliged companies) Distributors & retailers of packaged goods Distributors & retailers of packaged goods
03 Registration and accreditation	 The responsibilities for each stakeholder group will need to be unambiguous and clearly defined. Obligations in financial aspects, organisational practicalities (e.g., operational management, logistics), information provision, monitoring and enforcement. Governments can monitor activities in and the performance of the EPR chain through the accreditation or certification of the PRO(s). When a PRO seeks to operate in a given jurisdiction, the government should require the PRO to obtain permission by registering through an application that details the structure of the PRO and how it intends to operate. Governments can also require that PROs periodically recertify and 'this' process provides an occasion for the assembly and review of information.



Policy Recommendation	Description	
04 Phase-in and alternative approaches for developing countries.	• The foundational elements must first be sorted before progressing as institutional capacity develops. As part of planning and policy-making of EPR, a panel consisting of experts, policy makers, researchers, relevant industry associations and consumer groups should be formed. This would provide an opportunity to examine country specific circumstances, and develop or adapt tools and instruments available for shifting towards better waste management. It would also provide more objectivity to advise the government on priorities and best policies for achieving its objectives of an EPR in the country. The phases suggested by the Institute for Global Environmental Strategies (IGES) include:	
	Phase 1Phase 2Phase 3Phase 4Focus on improved waste management and resource recovery (the 3Rs)Integrate environmental externalities into consumption and productionIncentivise eco-design innovations of the product and product systemsPhase 3Phase 3Integrate environmental 	
	• To tackle the EPR challenges associated with rural areas, a 'hub-and-spoke' approach for a recycling system could be explored for smaller cities or rural areas. A hub and spoke system is where recycling hubs are established to shoulder the financial burden of operating a recycling centre. This model would consist of centralised processing centres (hubs) and surrounding communities (spokes) that feed the recyclables they collect to the main hubs. Given that these areas are challenged with getting enough materials to process and recycle, this approach allows for the consolidation of materials, producing enough volume to make it economically feasible to process and market the material ¹⁵ .	
05 Transparency of EPR data and funds	 Applying the True Cost Principle, which refers to the idea that the fee which is paid by each producer should reflect as accurately as possible the end-of-life cost of his own products. This also act as a deterrence to "free-riding", as it would limit the number of producers who benefit from EPR systems without contributing their share of the costs¹⁶. Data reporting from producers to the PRO or agency boards in charge should also be mandated. The total data points for countries should then be collated, with respect to companies' privacy policies, to show that the EPR system has resulted in significantly better segregation, collection and recycling rates. Policy makers will need to determine the appropriate level of public information to be required from PROs and producers since full transparency can be difficult to implement in some sectors. A certain level of information is necessary to assess the effectiveness of EPR schemes in place, review the targets as well as ensure funds collected from the EPR are used strictly for infrastructure to improve the EPR. Transparency on costs is also critical for producers and municipalities in order to make producers and producers of the EPR. Transparency on costs is also critical for producers and producers and	
	municipalities in order to make informed decisions on which PRO to choose when several options exist. In later stages, transparency and the harmonisation of definitions and reporting modalities will be essential to allow international comparison of data and country reviews.	



Policy Recommendation	Description
06 Integration of informal sector with EPR system	• The informal sector's waste recycling operations are often unlicensed and unregulated. In order to integrate or formalise the informal sector into the EPR system, revenues generated from recyclable waste could be shared with these workers.
	• Another option would be to have initiatives in place that buy recyclable waste from the informal sector, initiated by the PRO or with government intervention. This would allow for professional training and awareness of packaging quality standards, as well as possibly inciting the informal sector to collaborate with the PRO.
07 Incentives for sustainability/ Eco-modulation	 To facilitate the later phase of incentivising eco-design, mechanisms to ensure information and knowledge exchange between sorting and recycling companies with raw material suppliers and packaging manufacturers must be in place in the framework. Recycling and sorting companies should have full details of the composition and material properties of the relevant packaging so that they can handle it in the most appropriate way, while raw material suppliers and packaging manufacturers will need to know about recycling methods to improve their packaging designs. Policy interventions can facilitate the integration of advanced fee modulation in EPR regulation. For example, the ongoing update of the EU Waste Framework Directive serves to instigate EU Member States to develop legislation that requires PROs to implement advanced fee modulation¹⁷. As such, policy instruments that incentivise eco-design must be in place to help facilitate the transition.
	• Fees can be differentiated according to the degree of recyclability of a product. A distinction can be made between technical recyclability (e.g., if the product is recyclable given available technologies) and practical recyclability under specific market conditions (e.g., if the product is recyclable in a certain country due to specific recycling and waste management infrastructure). Differences in markets and the dispersion of waste management capital in different locations can lead to competing definitions of specific criteria for practical recycling ¹⁸ .

¹⁷ OECD. (2021). Modulated fees for extended producer responsibility schemes (EPR). Environment Working Paper No. 184. Retrieved from: https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ENV/WKP(2021)16&docLanguage=En#:-.text=EPR%20fee%20modulation%20is%20the,based%20on%20measurable%20product%20characteristics.
 ¹⁸ Ibid.



6.CASE STUDIES

This section will provide further elaborations of how EPR schemes operate in different countries, focusing on their structure, key framework and working mechanisms of the relevant PROs in local contexts.



Background

Introduced in 2006, legislation of EPR policies and programmes have grown to become an instrumental part of Canada's waste management policy. They are categorised under three main archetypes (in figure 2 below) with differences on the degree of producer involvement for the designing, operation and financing of end-of-life management of designated products and packaging.

Stewardship Product assigns direct no responsibilities to producers and are typically government funded by or consumer-paid environmental fees¹⁹ while partial EPR programmes are jointly managed or financed by consumers, government and industry. As for full-fledged EPR, producers are solely and fully responsible for the financing and operation of their products. Despite requirements in different various provincial jurisdictions, there has been a transition towards the Full-fledged EPR model in recent years.²⁰

Product Stewardship	Partial EPR	Full-fledged EPR
▼	•	
Programmes are partially funded by government or via consumers through paid environmental fees.	Programmes financed by multi-stakeholders (government, producers & consumers)	Producers assigned full responsibilit for the management of products placed on markets.

Figure 2: Three Main Archetypes of EPR in Canada

Framework

Product stewardship

As an environmental management strategy that seeks to place the responsibility on producers to take responsibility for the product's life cycle, government or quasi-government organisations are generally responsible for managing the materials on the behalf of producers. Its organisational structure varies among provinces with the most notable variable being the degree of government control over the programme which includes the authority to approve or set fees²¹. Financed by taxpayers' money, producers are not obliged to bear the responsibility to internalise recycling costs into recycling operations. Most provincial deposit-refund programmes in Canada adopt the product stewardship approach. In Alberta (province in Canada) for instance, fees also known as a container recycling fee (CRF) for beverage containers are added at the point of sale as an environmental fee which will fund recycling operations.

Partial/ shared EPR

This model follows a joint approach, in which the programmes are operated and/or financed by both government and producers to which the level of responsibility between government and producer varies depending on programmes. The blue box programme is one of the most common type of shared EPR for household recyclables where municipalities are responsible for the collection, sorting and management of materials funded by producers. Similar to the product stewardship where full responsibility is not borne solely by producers, the need and drive towards the improvement of design packaging is typically nullified.

¹⁹ Lexology, (2022). Canadian product stewardship and EPR: A review of 2021 and beyond. Retrieved from: https://www.lexology.com/library/detail.aspx?g=443c03bb-dee5-4d49-b008-a4e10b820f77
²⁰ Smart Prosperity Institute. (2019). Extended Responsibility in Canada. Retrieved from: https://institute.martprosperity.com/library/detail.aspx?g=443c03bb-dee5-4d49-b008-a4e10b820f77
²¹ Nathwest Product Stewardship Council. Poduct Stewardship in Canada. Retrieved from: https://cdn.ymaxs.com/www.ptoductStewardship.us/resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/sub-resource/ductStewardship.com/



Full-fledged EPR

Producers are fully responsible for the physical and financial management of packaging they put out in the market and have collection and recovery targets that they must meet. Full-fledged EPR typically allow for firms to choose how they collect and manage their materials. Producers normally delegate the collection and management of these materials to a PRO through contribution of fees. While fees may defer across provinces, it covers the collection system, processing, administrative and market costs. Unlike product stewardship and partial EPR, the key distinguishing factor of a full-fledged EPR is that it makes producers responsible for managing the waste from their products. This forces producers to internalise the waste management cost as a factor of production which could encourage further improvements/ innovations upstream such as the improvement of packaging design to enable ease of reuse and recycle.

PRO

In British Columbia (BC), EPR (formerly referred to as Industry Product Stewardship) consists of a series of programmes, each specific to a specific product category (i.e., automotive parts, glass beer, electronic products etc.) The Recycle British Columbia (RBC) is a not-for-profit PRO responsible for the collection, sorting and recycling of packaging and paper recycling. 'Steward' a word to describe a company or organisation that is obligated by the BC Recycling Programme would have to assume responsibility of the collection and reprocessing of their packaging and/or paper products. Exemptions apply to small businesses and those that supply less than 1000 kg of packaging and paper product (PPP) to BC residents while those supplying less than 15,000kg of PPP have the option to file a simplified report (bypass need to do detail data gathering & weighing of packaging) and pay a flat fee²². Voluntary (brand owner not in BC but supplies product into province) registration under BC would still entail the payment of fees that are sufficient to cover the material management, administration and resident awareness. On the other hand, obliged producers would have to cover the contribution of costs of managing the collection, consolidation, processing and marketing of recyclable PPP. To achieve the objectives for the management of PPP for collection and recycling, Recycle BC employs strategies that would include awareness campaigns, strategic partnerships to engage and educate respective stakeholders to make informed and correct decisions.

More details on PPP EPR plan under Recycle BC may be accessed <u>here</u> with BC's EPR <u>Five-Year Action</u> <u>Plan 2021-2026</u> also available.

Analysis

In recent years, provincial governments have been rolling out various waste management programmes in efforts to divert waste from landfills. The shift from product stewardship to a full-fledged EPR model along with the expanded regulatory enforcement mechanisms demonstrates Canada's willingness to address waste management systems. Considering the evolvement of programmes which could see the broadening scope of products and packaging, companies must be clear of their obligations to maintain compliance.

Currently not all provinces have implemented a full-fledged EPR on packaging. However, the Canada-wide Action Plan²³ for EPR highlights the move towards a full-fledged EPR model which can be supported by the Canadian Council of Ministers of the Environment (CCME)²⁴ and its member governments. Developing countries in Asia might be able to replicate a similar gradual approach with appropriate timelines, given that different jurisdictions (e.g., mega cities vs rural) would have different socio-economic statuses. This would acknowledge differing budget allocation, as well as allow more time for required infrastructures to be built and facilitate waste and recycling management.

KEY TAKEAWAYS FOR CANADA

Over the second second

Multiple programmes under EPR plan for different product categories

- Not-for-profit PRO (Recycle BC) responsible for the waste management of packaging and paper products
- Recycle BC's programme driven by an 8 overarching objective for continuous improvement in recovery effectiveness, assuming financial responsibility for all collection and post-collection activities

Provides clear definition and scope of packaging and paper products under British Columbia's Environmental Management Act



03

Background

In February 2022, the mandatory EPR on plastic waste of three categories came into force. The regulation with clear definitions of producers, importers, and brand-owners (PIBOs) will require them to fulfil the EPR responsibilities for the three categories of plastic packaging which include:

Category I

Rigid plastic packaging



Category II

Flexible packaging of single or multilayer, plastic sheets, carry bags, plastic sachet or pouches



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Category III
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Multi-layered plastic packaging

Framework

EPR targets and obligations are determined by the category of plastic and state wise for producers, importers and brand-owners respectively. Each obligated entity is required to fulfil their minimum level of recycling waste collected under the EPR target, end of life disposal for plastics that cannot be recycled and the use of recycled plastic in the various plastic packaging categories. In cases where it is not possible to meet the obligation in respect of recycled plastic content, exemptions may be granted by CPCB on case-to-case basis. PIBOs operating in more than two states must obtain a registration by the Central Pollution Control Board (CPCB), while the remaining PIBOs (operating in one or two states) may register with the relevant State Pollution Control Board (SPCBs).

All plastic waste processors shall register with the relevant SPCB and shall submit annual return returns on the quantity of plastic waste processed category-wise and state-wise. Only plastic waste processors under Plastic Waste Management Rules, 2016 shall provide certificate for plastic waste processing (PWP) which will be considered for fulfilment of EPR obligations by PIBOs.

Agency

PIBOs must register at Central Pollution Control Board (CPCB) as part of the EPR legislation. Besides being a centralised online portal for PIBOs to file annual returns on the plastic packaging waste processed through PWPs, the portal acts as a repository for orders and guidelines related to the implementation of EPR plastic packaging. This system ensures a mechanism where the material balance of plastic waste introduced in the market by manufacturer of plastic packaging material and PIBOs in a financial year is reflected. In addition, it shall also reflect the details regarding the audit of the PIBOs as well as recyclers or other waste processors of plastic packaging waste. Currently, the CPCB has completed the development of two standard operating procedure modules for: Registration of PIBOs²⁵ and Registration of Plastic Waste (PWP)²⁶ for Processor the EPR's implementation with several other modules in the pipeline. Besides this, CPCB will also establish a mechanism to ensure a regular dialogue between relevant stakeholders involved in the fulfilment of EPR for plastics. More in-depth information and data such as the category-wise EPR targets and PIBOs application status may be accessed under the CPCB page here.

Analysis

Despite its mandatory status, the scope of materials covered is limited to different plastic categories, unlike some other countries (i.e., Germany, Canada, Japan & Vietnam). The concept of PRO in India is currently recognised in the two sectors of Plastic Management (PWM) and E-Waste Waste Management. Until May 2019, PROs were required to register with CPCB as per PWM rules under the "Guidelines and Application form for Recognition of PROs." CPCB has since discontinued the need for the recognition of PROs with producers and stakeholders now responsible to plan their EPR implementation and engagement with concerned agencies²⁷. Without the need for registration, the need to fulfil certain minimum requirements such as a minimum of 5 years' experience in Waste Management as stipulated previously under the "Guidelines and Application form for Recognition of PROs" would be difficult to track and hold companies accountable. The ability of a PRO to fulfil its responsibilities is one of the biggest contributing factors towards a successful EPR implementation, considering the high mandatory target of recycled content set in each plastic material are currently the highest figure globally²⁸. Apart from the involvement of a PRO, it is also still too early to conclude how current measures and mechanisms may pan out or if they are adequate to meet the annual targets for each plastic category.

²⁶ CPC8. (2022). SOP for Registration of PIBOs through Plastic EPR Portal. Retrieved from: https://cpcbeprplastic.in/plastic/downloads/SOPper cent20PIBOS_0001.pdf

ipid.
 ²¹ Central Pollution Control Board. (2019). Notice for withdrawal for Producer Responsibility Organisations by CPCB. Retrieved from: https://cpcb.nic.in/uploads/plasticwaste/Notice_PRO_Withdrawal.pdf
 ²³ PackagingEurope. (2022). Europe should follow-Indias-lead-on-plastic-recycling. Retrieved from: https://packagingeurope.com/comment/europe-should-follow-indias-lead-on-plastic-recycling-R556.article



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KEY TAKEAWAYS FOR INDIA



EPR Mandatory for PIBOs that places plastic packaging under the three categories

Clear definitions on Producers, Importers and Brand-owners

INDONESIA

Background

The concept of EPR was first introduced in the waste management law of 2008, with limited details on the implementation at that time. As a result of the lack of further specifications such as reporting requirements or penalties, the regulation failed to bring about any impact. The Minister of Environment then introduced the Roadmap on Reducing Plastic Pollution by Producers in 2019, also known as Regulation 75/2019, which include ambitious reduction targets, emphasis on recycling, definition of the term producer and the requirement for producers to submit waste management plans. Additionally, as part of the policy directive under the Solid Waste Management National Policy and Strategy Target 2018-2025, an EPR scheme was identified to manage plastic waste. Despite a legal policy framework in place, 2020-2022 has been designated as years for trialling the EPR mechanism, with the law set to become mandatory in 2023. Currently, enforcement mechanisms are still in discussion and responsibilities of the public and private sectors have not been appropriately defined, in particular, the interface between produce responsibility and formal collection system²⁹.

Analysis

Alongside its partnership with multi-stakeholder collaborations to increase awareness and engagement in waste management, IPRO's focus is on post-consumer collection (formal and informal) and recycling as evident from the categories above. However, it is still premature to tell if Regulation 75/2019 or IPRO would be adequate for a producer responsibility scheme to successfully emerge and facilitate waste reduction targets. As such, it would be crucial for IPRO to address system design specifics (e.g., level playing field, role for SMEs and flexibles) and strategies to ensure that PRO contributions are a complementary source of not disincentivise fundina that do local governments³⁰.

²⁹ SystemIQ (2021), Producer Responsibility in Indonesia, Retrieved from: https://www.systemiq.earth/wp-content/uploads/2022/01/Producer-Responsibility-in-Indonesia2022.pdf ²⁰ bid



EPR targets determined for PIBOs based on plastic category and state

No establishment of a PRO besides CPCB which will serve as to verify compliance of PIBOs

PRO

Despite the responsibility of producers to carry out waste reduction, there is no mandatory form of funding or mechanism that producers would need to comply under Regulation 75/2019, leading some observers to interpret the producer responsibility as voluntary instead of mandatory. <u>Indonesia PRO (IPRO)</u> is a voluntary, not-for-profit initiative of companies that are members of the Packaging and Recycling Association for Sustainable Environment (PRAISE), focused on increasing the collection and recycling rates of used packaging. **Three categories of initiatives** that are funded by IPRO include:

Category A

IPRO pays aggregators or recyclers for proof of recycling and collection through incentives

Category B

IPRO provides co-funding for the set-up of new collection, sorting and infrastructure in return for proof of new collection and/or existing improvement achieved over a defined period ensuring long run viable business practices/ sustainable best practices

Category C

IPRO finances enabling activities to support responsible expansion of Category A and Category B

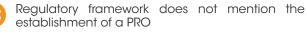
KEY TAKEAWAYS FOR INDONESIA

EØ

- EPR Mandatory but regulations are not enforced
- Scope of coverage includes products, product packaging and containers for plastic, aluminium can glass and paper that are difficult to degrade naturally or cannot be recycled or reused



- No mandatory form of funding or mechanism for producers to comply despite requiring producers to submit waste management plans
- Regulation is based on Individual Producer Responsibility (IPR) with no collective collection efforts being specified



Establishment of IPRO by private sector operators is operational but still a work in progress as it will need to address system design specifics and strategies



JAPAN

Background

The EPR related legislation "Law for the Promotion of Sorted Collection and Recycling of Containers and Packaging (Container and Packaging Recycling Law)" first came into force in 1995. It originally covered only glass and PET bottles, but later expanded to containers and packages made of plastic and paper in 2000. Designated producers are given three options to fulfil their obligations:

Through a PRO (PRO-route)



Reuse or recycle containers or packaging or outsource such reuse or recycle (self-collection route)

Framework

Under chapter 2 of the law, the responsibilities of the government and local authorities are clearly defined. In summary, the government must make necessary arrangements for promoting sorted collection of container and packaging waste which meet the sorting criteria which would include the financing of these activities. Another responsibility of the government is to promote public awareness of sorted collection of container and packaging waste and recycling of items whilst seeking the general public's cooperation with respect to the implementation of collection and recycling efforts. As of local authorities (i.e., municipalities and prefecture governments), both entities must seek to take necessary measures to ensure that the recycling of items meeting sorting criteria which are in accordance with the national government's policies.

For every fiscal year, the government surveys the containers and wrapping used or manufactured e.g., type of material, uses and shapes) by business entities. Following which, the planned amount of sorted collection and recycling, along with the rate of responsibility by industries will be determined³¹. If a designated producer fails to fulfil its recycling obligations, such as 'free riders', penalties in the form of fines may apply.

PRO

JCPRA, a designated government-led PRO based on the Container and Packaging Recycling Act interfaces between businesses, municipalities, and recyclers to operate recycling businesses on behalf of specified business entities for waste containers and wrapping. Recycling fees which Under the system, municipalities assume the responsibilities of municipal solid waste (MSW) while producers finance the recycling of the collected waste packaging. Should designated companies chose the PRO-route, they would then outsource to the Japan Containers and Packaging Recycling Association (JCPRA), a government-run PRO.



Outsource collection and recycling to waste other than the PRO (own recycling route)

are paid to the PRO come in two types of commissions, namely, recycling commission. and commission. The contributory recycling commission is calculated for each waste packaging that is properly sorted by multiplying the recycling commissions per unit quantity (yen/ton) and the quantity of the item that the business operator intends for the PRO to recycle. The contributory commission on the other hand seeks to achieve the reduction of overall costs of the recycling system by giving an incentive to municipalities whenever high quality of properly sorted waste packaging are handed over to recyclers³².

The PRO outsources all the recycling operations to recyclers which are subjected to the strict examinations on quality standards by JCPRA, with recycling fees paid following the confirmation that recyclates are sold. Sorted and collected waste packaging handed over to the PRO by municipalities are scrutinised to ensure that it meets the regulatory criteria and quality of waste packaging.

JCPRA also sets criteria and guidelines on the quality of recycled products for those made from PET bottles and other plastic packaging to improve performances of recycling. Recyclers are obliged to report their recycling activities, including information about their customers (businesses) and sales performance, to prove that appropriate recycling is conducted. Such standards and guidelines ensure that each of the stakeholders are well engaged, ensuring a robust recycling ecosystem and EPR system in Japan³³.



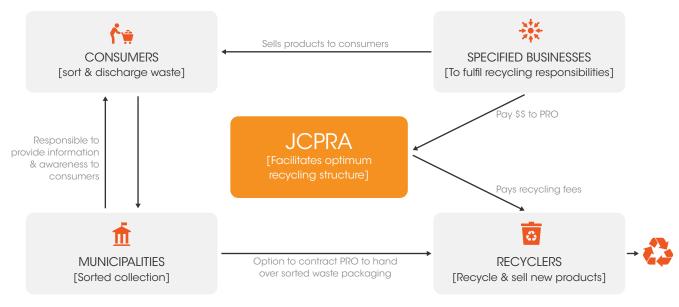


Figure 3: Material flow through a "PRO-Route"

Figure 3 above highlights the PRO-Route which illustrates the material and financial flow of the key stakeholders within the EPR-based recycling system. Upon the consumption of products, consumers have the physical responsibility for source sorting; municipalities will have both financial and physical responsibilities for sorted collections and further sorting, with the option to contract a PRO to manage the waste packaging. Specified business, (e.g., producers) obliged to fulfil recycling targets may pay recycling fees to the PRO which then select recyclers through competitive bidding to conduct the recycling process.

Analysis

Since the Recycling Packaging Act was enforced, producers have been assigned with the responsibility to recycle the waste containers and wrappers they place on the market. In reality, it can be difficult for them to collect such waste items from municipalities to recycle on their own. The establishment of JCPRA to carry out recycling operations on the behalf of producers along with the contributory commissions which incentivises municipalities to provide high-quality and properly sorted packaging waste to recyclers have led to a steady increase in the volume of recycling for waste containers and wrapper, proving the effectiveness of a government-led PRO in a developed country like Japan.

For developing countries in Asia, Japan's model could serve as a pilot or those transitioning from a voluntary system to a mandatory model. This is to allow for foundational key design elements to be well-established, encouraging compliance to adjust to financial and administrative challenges as well as tackling free-riders.

KEY TAKEAWAYS FOR JAPAN

- Mandatory for producers, manufacturers and importers of <u>designated packaging</u> subject to the law
- Scope of products, packaging and stakeholders (e.g., businesses, municipalities, recyclers) and responsibilities for each stakeholder are well defined
- Fees/ commission paid to PRO are clearly laid out
- Municipalities apply competitive bidding to ensure a level playing field in the stage of recycling
- Continues to follow a 'Partial EPR' Model despite being established for decades; Government-led PRO (JCPRA) plays a central role in the recycling ecosystem in Japan. The government also decides on planned amount of sorting and recycling for each fiscal year





PHILIPPINES

Background

Lapsed into law on 23 July 2022, the <u>Extended</u> <u>Producer Responsibility Act of 2022</u> (unofficial publication) requires large enterprises, those with total assets over 1 billion Pesos (USD 49,000) to recover a percentage of their plastic packaging waste annually. While non-mandatory for micro, small and medium enterprises (MSME), it does not preclude them from practicing or being part of the network engaging in EPR programs³⁴. Under the law, obliged enterprises would have to comply with the targets recovery rates set out for plastic footprint. An Implementation Rules & Regulations (IRR) has to be published to confirm the guidelines of the EPR bill.

Framework

Currently under the EPR, obliged companies have the responsibility for the proper and effective recovery, treatment, and recycling of their plastic packaging products. Obliged companies shall register with the government, specifically the National Solid Waste Management Commission (NSWMC) within six months of the law's effectivity. Documentations on plastic product footprint and an annual report on compliance with their respective EPR programme would have to be submitted to the Department of Environment and Natural Resources (DENR). Regarding the implementation process, the EPR programme may be supported by a PRO, which can be formed by multiple companies to support its EPR programme. The PRO must include elements such as systems and targets for collection, sorting, recycling and recovery.

Failure to meet waste recovery targets would result in fines. However, a reward system is established under the law that seeks to encourage the EPR scheme. Individuals, private organisations and obliged companies that have undertaken the EPR scheme will be provided under the fund which is still to be finalised. Obliged companies will also be required to perform audits on their EPR programmes to certify the veracity of their reported plastic product footprint and compliance with EPR targets.

³⁴ Senate of The Philippines. (2022). Retrieved from: https://legacy.senate.gov.ph/press_release/2022/0131_prib9.asp#:-:text=SBNper cent202425per cent20setsper cent20targetsper cent20untl.beper cent20eligibleper cent20lacper cent20taxper cent20taxen

Analysis

While the current EPR bill is focused on plastics, the law requires all forms of packaging and products to have its own framework. Brand owners and manufacturers would need to have their EPR programmes for plastics ready six months from the effectivity of the law-Februrary 2023.

The targets for the recovery product footprints starting from 2023, with an annual increment till 80% by 2027, must be complied. Such recoveries may be facilitated by buying waste credits from diverts, buying recycled content packaging or through the adoption of material recovery facilities to name a few. As of December 2022, the Implementation Rules and Regulations (IRR) is still awaiting the approval by the DENR, which will provide the respective guidelines for the bill.

KEY TAKEAWAYS FOR PHILIPPINES

- EPR Mandatory for large enterprises. Participation from micro, small and medium enterprises (MSME) will be voluntary.
- Scope of packaging: plastic packaging waste (types of materials defined)
 - Supports the formation of PROs to support the implementation of EPR
- National Ecology Centre established under NSWC shall provide consulting, information and training while monitoring and evaluating the compliance of obliged companies under their respective registered EPR programmes and targets on recovery. for the implementation of the Act.





VIETNAM

Background

The Ministry of Natural Resources and Environment (MONRE) amended the Law on environmental Protection (LEP) in 2020, transforming the voluntary EPR model to a mandatory one. As of 10 January 2022, Decree No. 08/2022/ ND-CP has taken effect and Circular No. 02/2022/TT-BTNMT provides the guideline on Vietnam's EPR, stipulating the responsibilities of producers and importers to recycle products and packaging according to the mandatory recycling rate and regulations.

Framework

The mandatory scheme applies to producer and importers who place certain products and packages on the market. Producers and importers of such products or packages subject to the Packaging Recycling Obligations and Product Recycling Obligations are allowed to choose between four options to fulfil their recycling responsibilities:

- Independently
- Collectively through a PRO
- R Hiring of a third party to carry out recycling
- Contributing to the Vietnam Environmental Fund 9 (VEP Fund), while it is mandatory for those fulfilling waste treatment obligations to make financial contributions to the VEP fund

All packaging and products mandated to be recycled will also be subject to meet a disposal and collection rate. national recycling taraets, environmental protection requirements and socio-economic conditions, which will be measured and adjusted every three years. In the case where contribution to the VEP fund is preferred, this financial contribution will be used to support the recycling of products and packages. More information including the product and packaging recycling obligations and financial contribution to the VEP fund to support recycling may be accessed here.

Likewise, producers and importers who manufacturer or import products and packages which are difficult to recycle or cause difficulties for collection and treatment will also fall under the Waste Treatment Obligations. A financial contribution to the VEP Fund determined by the volume or unit of product or packaging will go into supporting the waste treatment activities. These financial contributions can only be used to support waste treatment activities such as: research and development of technology for domestic solid waste treatment and the collection and transportation of solid wastes from households

and individuals. More information on the types of packaging and level of financial contribution under the waste treatment obligations may be accessed here.

Since its implementation, a National EPR Electronic portal has been set up to provide further clarification towards the provisions of the law. The establishment of a National EPR Council is also another significant pillar of how the EPR scheme would be set out. Set to consist of members such as managers, environment protectors and representatives of recycling-liable producer and importers with the task of advising and assisting the Minister of Natural Resources and Environment (MONRE), the active participation of each representative would be key in ensuring that producers and importers are able to achieve the obligatory recycling rate and specifications³⁵.

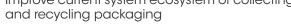
PRO

Consisting of an alliance of 19 members (leading businesses in consumer goods, retaining and packaging), PRO Vietnam focuses on four key pillars of:

Increasing consumer awareness about package sorting and recycling



Improve current system ecosystem of collecting





Support recycling programs from package-manufacturing facilities

Cooperation with authorities to promote 3R principle (Reduce, Reuse, Recycle) Its current roadmap of 2020-2030 prioritises efforts to

change consumer behaviour by 2025 with the aim of having all packaging materials placed in the market by members to be collected and recycled by 2030. Fees collected from members would be used to fund campaigns to increase awareness. Due to the complications of COVID-19, progress on its pilot collecting programme was limited. Citing 2022 as a transitional period towards its acceleration, PRO Vietnam intends to cooperate with MONRE to effectively build the implementation of the EPR decree. Some of the main goals of 2022 highlighted include:

Enhance operational capacity

Roll out more campaigns for recycling projects

Collect and recycle at least 3000 tons of each type of waste material (mainly PET, UBC-75per cent paper fibre, 25per cent Polyethylene & aluminium as well as laminates)

Support pilot programs through behavioural campaigns for waste sorting and recycling

Expand membership base



Analysis

While the law has taken effect, there are still key regulations under the EPR law to be addressed. They are:



The Draft Circular guiding the Regulation on Management and Use of Financial Contribution of Manufacturers and Importers into the Vietnam Environmental Protection Fund



The Draft Decision issued by the Prime Minister promulgating the cost norm of recycling products and packages (Fs)

For the former, the Circular was released for public consultation in September 2022, for two months. For the latter, the Decision is set to be approved in 2024. Vietnam has imposed tight deadlines to meet despite regulations being officially released at a late stage, with regulations for the waste management obligation being an example. With recycling obligations to begin in 2024, the Decision promulgating the cost norm of recycling products and packages should be released as soon as possible, despite it being set for approval only in 2024. The foundational elements must first be sorted before progressing as institutional capacity develops. This would allow companies sufficient time to adjust their financial as well as administrative issues, ensuring compliance.

KEY TAKEAWAYS FOR VIETNAM

EPR Mandatory for producers and importers whose products and packaging that are subject to the mandatory frameworks (i.e., Packaging Recycling Obligations, Product Recycling Obligations & Waste Treatment Obligations)



Scope of packaging well-defined (i.e., paper, metal, plastic & glass)

Producers and importers are given the option to choose how they may fulfil their obligations

Obligatory recycling rates will be measured and adjusted every three years



7.CONCLUSION

Countries need to assess their policy priorities as the starting point and then adjust implementation of EPR according to factors such as level of national economic development, environmental policy development as well as institutional enforcement³⁶. It is also critical to implement a contextualised EPR, with a gradual phase-in period, based on local waste management policies that will work best as a tool, alongside a combination of public investments in waste and recycling infrastructures, standardised and harmonised regulatory standards for recyclable materials, as well as guidelines for eco-design services and eco-labelling.





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