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PRODUCER RESPONSIBILITY IN INDONESIA

WHAT TO KNOW, WHAT STAKEHOLDERS THINK, AND WHAT COULD HAPPEN NEXT

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ABOUT THIS PAPER

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INTRODUCTION

Plastics and other forms of packaging have many valuable applications in Indonesia but there are concerns about the environmental impact after their usage, especially in regions without formal or informal collection and the resulting impact of plastic pollution on ecosystems, livelihoods and health. The Indonesian government has set 3 targets to be achieved by 2025 by which it defines a successful transition: reducing marine plastic debris by 70%; reducing waste at source by 30%; and increasing the handling rate of waste to 70%.

Meeting these targets requires actions from both the public and the private sector: companies have control over developing e.g. the re-use and new delivery models that can drive waste reduction, while government can set regulations favourable to those changes. For handling, the roles are reversed: waste management is a public (regency and city) task, primarily funded through retribution fees. But here too, private-sector initiatives and funding could act as a complementary source filling in financial gaps, if cleverly designed. They could contribute in particular to making Indonesia's waste system more circular.

This paper focuses on so-called producer responsibility for packaging in Indonesia. It is based on conversations with twelve parties (five ministries, two groups of industry representatives and five experts). Its purpose is to paint a fair picture of the current state of affairs around producer responsibility in Indonesia, based on existing regulations and on what these stakeholders have shared with the authors. Based on that information, we propose a potential way forward for producer responsibility in the coming two years. Inevitably, this paper will raise more questions than it will answer. Our hope is nonetheless that it can provide a modest contribution to improving waste management in Indonesia.

The term '(extended) producer responsibility', or EPR, requires an explanation. As we will see in more detail in the paper, it can mean different things to different people. Many Indonesian stakeholders use it to refer to the responsibilities of industry as defined in the *Roadmap on Waste Reduction by Producers* (Permen LHK 75/2019), including reduction and recycling. For others, EPR only refers to producers' contributions to (post-consumer) waste management and recycling, not their (pre-consumer) efforts to reduce the amount of packaging they put on the market. The latter use of the term is also common outside Indonesia. In this paper, we use 'producer responsibility' to refer to the responsibilities of companies pre- and post-consumer. This paper limits itself to producer responsibility for packaging, with a focus on plastics.¹

¹ In cases where data was only available for plastics, this paper will cite the statistics for plastics instead of for all packaging

1. CURRENT STATE OF AFFAIRS AND THE CHALLENGES TO RESOLVE

POLICY CONTEXT OF PRODUCER RESPONSIBILITY

Producer responsibility for packaging is part of a broader policy agenda to combat plastic pollution. This agenda is captured in three targets set by the Indonesian Government to be achieved by 2025:

1. To reduce plastic entering the ocean by 70%²
2. To reduce 30% of waste at source³
3. To reach a handling rate (e.g., safe collection and disposal) of 70% for all waste³

These targets have broad support among stakeholders. The complexity lies in *how* to achieve these targets and which party is expected to take up which role. More precisely: what is the right balance between **public- and private-sector responsibilities** in achieving the targets (who does what?); how to resolve the **funding** challenge that these targets imply (who pays how much for what?); and, once responsibilities and funding are set, how to give rise to a fair and effective **enforcement** system (how to ensure compliance?).

PUBLIC- AND PRIVATE-SECTOR RESPONSIBILITIES

To understand what exactly is required of companies in the current situation, and which challenges remain, it is useful to give a short description of Indonesia's packaging value chain before describing the regulation that defines producers' and governments official responsibilities today.

Short recap of Indonesia's current packaging system

The packaging system, in Indonesia and elsewhere, consists of two parts: **upstream**, or all processes that take place *before* the consumer purchases the product; and **downstream**, also called 'waste management': collection, sorting, recycling and disposal – the steps that occur *after* the consumer has used the item. Downstream, not all Indonesians have access to good waste management. Hundreds of thousands, if not millions of tonnes of packaging waste enter the environment each year.

² Presidential Regulation 83/2018 regarding Ocean Waste Reduction

³ Presidential Regulation 97/2017 regarding National municipal waste management policy and strategy, *Kebijakan dan strategi nasional pengelolaan sampah rumah tangga dan sampah sejenis sampah rumah tangga*, or *Jakstranas*

Figure 1: Indonesia's value chain for plastic packaging⁴

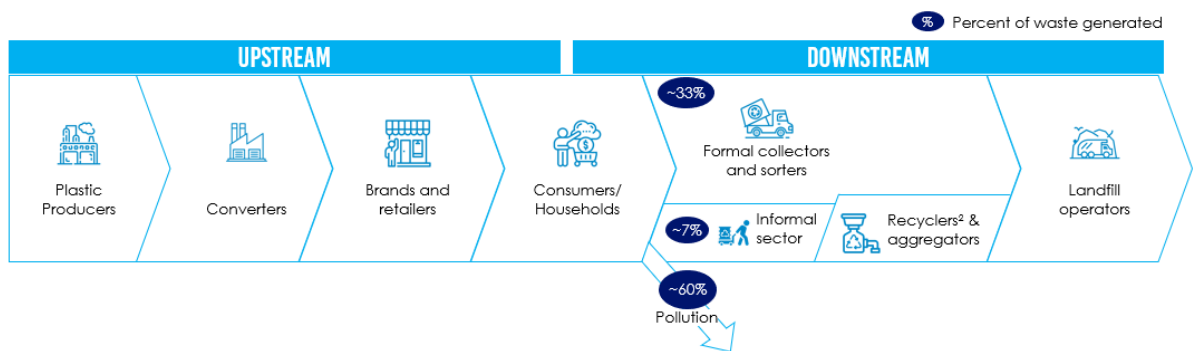


Figure 1: Indonesia's value chain shows the value chain for plastics; the value chains for other packaging materials are similar. The main players upstream are the producers of the basic material, converters who turn the basic material into packaging, 'brands' (consumer packaged goods companies) and retailers that sell the products to consumers. These steps are all within the control of the private sector. The national and local governments act as the regulator of these activities.

There are two downstream value chains. Firstly, the **formal** waste system, that handles an estimated 80% of the plastic waste that is collected (an estimated third of total waste). Most of the waste collected by the formal waste system ends up in landfill. Formal sorting-for-recycling is not common, so formal recycling percentages are very low. The formal waste system is operated by local waste management bodies, owned or controlled by local governments and by small private haulers.

The picture looks very different for the **informal** chain. Informal collectors collect an estimated 20% of the plastic waste that is collected – much less than the formal system. An additional 20% is recovered from the formal waste stream – for example by informal collectors working in transfer stations or on landfills. Informal collectors are very selective in what they collect or recover, specifically picking out those items that have the highest recycling value, such as metal cans or PET bottles. The informal sector takes care of nearly all the domestic supply to the recycling industry.

Producer responsibilities under current regulation

Now that we have a general idea of the packaging system, let's look at what Indonesian regulation says about the responsibilities of various players, starting with 'producers', a term we will define further below. The concept of extended producer responsibility was introduced in the waste management law of 2008.⁵ That law defines producers' responsibility as an "obligation to manage their packaging and/or products that are produced that cannot (easily) decompose by natural processes".⁶ This responsibility is regulated further in the Government Regulation 81/2012 which gives producers the responsibility to reduce, recycle and reuse their packaging and/or products.⁷ In a certain sense, EPR has been mandatory since 2008. However, regulators did not give detailed guidance on implementation at the

⁴ Percentages are based on NPAP, 2020

⁵ UU 18/2008 regarding Waste Management

⁶ Waste Management Law 18/2008 article 15

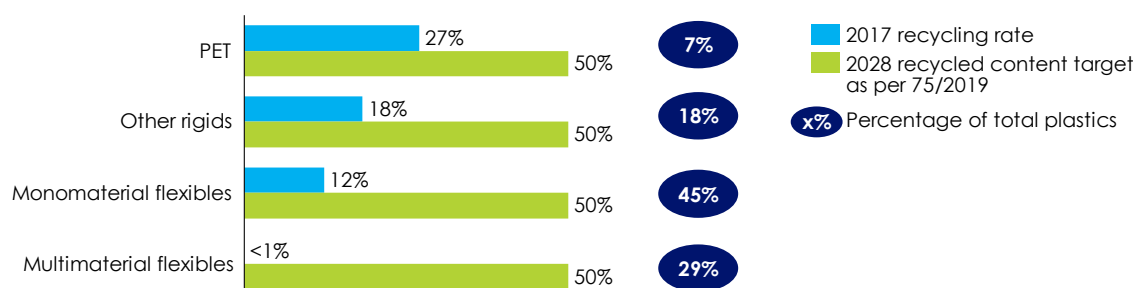
⁷ Government Regulation (Peraturan Pemerintah) No. 81/2012 article 12, 13 and 14

time. In practice, industry contributed through corporate social responsibility initiatives on a voluntary per-company basis.

The legal situation changed in 2019 with a landmark regulation by the Minister of the Environment titled *Roadmap on Reducing Plastic Pollution by Producers*, or **regulation 75/2019**. This Roadmap directly references the target of 30% waste reduction at source. It makes clear that this can be achieved both through reduction of product (packaging) material use, through increased recycling and through re-use systems (which include take-back schemes).⁸ It sets ambitious targets for recyclability and recycled content for all plastic material types, including those with currently very low recycling rates. Producers, defined as consumer packaged goods companies, retailers and *horeca*,⁹ are required to submit individual **waste management plans** committing them to concrete actions.

By targeting use of 100% recyclable materials and 50% recycled content for all plastic types, glass, aluminium and paper/cardboard, regulation 75/2019 aims at a profound change of the plastic system: from a linear disposal-based system towards a circular recycling-based system. This is a significant change in particular for lower-value flexible plastics where recycling rates currently fall far short to supply the volumes needed for 50% recycled content. To illustrate this gap, Figure 2: Regulation 75/2019 recycled content targets in relation to 2017 recycling rates for plastic compares 2017 recycling rates and the 2028 recycled content targets. It would require a major ramp-up of collection systems and the development of a largely new recycling industry.

Figure 2: Regulation 75/2019 recycled content targets in relation to 2017 recycling rates for plastic¹⁰



Regulation 75/2019 is not explicit about whether producers should use the formal or informal system for their recycling and take-back obligations. However, given the focus on recycling in the regulation, the informal system seems to be preferred.

Local government responsibilities under current regulations

Regencies and cities are required to operate a **full waste handling system** on their territory. Waste handling activities include collection, sortation, transport, processing and final processing/disposal.¹¹ 'Waste' refers to municipal solid waste – roughly the waste generated by households, small businesses, markets etc., including packaging

⁸ 'Pembatasan timbulan', 'pendauran ulang' and 'pemanfaatan kembali', MoEF Directorate of Waste Management, *Kebijakan Peta Jalan Pengurangan Sampah Oleh Produsen*, presentation by Dr Novrizal Tahar, November 2019

⁹ Hotels, restaurants and cafés

¹⁰ Based on NPAP (2020) data; note that not all recycled material is suitable for use in packaging

¹¹ Peraturan Pemerintah 18/2012 article 16 to 22 & Permendagri 33/2010

waste. Plastics make up roughly 15% of waste by volume, with metal, glass and paper smaller percentages.

Regencies often delegate their waste handling responsibility to village authorities in rural areas, while urban areas tend to have a city- or regency-controlled entity that operates on a larger scale.¹² In Indonesia, it is not common for local authorities to outsource waste management to private parties as happens in countries such as Singapore and the United Kingdom.

As we saw under *Short recap of Indonesia's current packaging system* above, the formal waste system collects an estimated 80% of collected plastic waste – both high and low-value materials – but it struggles to send large volumes to recycling plants. Understandably, the priority in many areas is to expand waste collection first, to extend waste service coverage to the estimated 160 million Indonesians who do not have access to full waste collection today¹³ and effectively have no choice but to burn or dump their waste in the environment.

National government responsibilities

Generally speaking, the national government is responsible for setting the overall policy direction, for monitoring progress and for providing funding for large infrastructure projects such as landfills and sorting centres (TPST and TPS 3R).

The three targets mentioned at the beginning of this chapter each have a responsible ministry stated in presidential regulations that defined the targets. For the target on 70% reduction of marine plastic leakage, The Coordinating Ministry of Maritime Affairs and Investment has been appointed as the lead coordinator. It has formed a taskforce that consists of 10 ministries to execute a comprehensive Plan of Action on Marine Plastic Debris.¹⁴

The waste reduction and waste handling targets are both the responsibility of the Minister of the Environment and Forestry (MoEF).¹⁵ MoEF is part of a Waste Management Platform together with three other ministries that share the national responsibility for waste management: the Ministry of Public Works and Public Housing (PWPH), the Ministry of Home Affairs (MoHA) and the Ministry of National Development Planning (BAPPENAS). Not included in this platform, but relevant for producer responsibility are the ministries of Industry and Finance. The first of these leads Indonesia's industrial policy agenda and leads or is consulted on policies that affect industry such as producer responsibility. The Ministry of Finance sets Indonesia's fiscal policy. As we will see in the next section on funding, this policy domain includes excises on producers

In conclusion, the responsibility for upstream (pre-consumer) waste reduction is largely in the domain of companies with (local) governments frequently setting supporting regulations. The downstream (post-consumer) waste management

¹² SYSTEMIQ, APKASI and APEKSI, *Building robust waste system governance and securing stable, sufficient funding to achieve Indonesia's waste management targets* (forthcoming)

¹³ NPAP (2020)

¹⁴ Presidential Regulation 83/2018 regarding Ocean Waste Reduction

¹⁵ Presidential Regulation 97/2017 regarding National municipal waste management policy and strategy, *Kebijakan dan strategi nasional pengelolaan sampah rumah tangga dan sampah sejenis sampah rumah tangga*, or Jakstranas

landscape consists of an informal and a formal waste system. The informal waste system struggles to collect and recycle the large volumes of waste that have a low market value or that are located too far away from a recycling hub. The formal waste system collects plenty of low-value materials (much more than the informal waste stream), but struggles to recycle.

MoEF's Ministerial Regulation 75/2019 has been a major step forward in clarifying the responsibilities of companies; this complements an established body of regulations that define the responsibilities in the formal waste system. At the same time, the precise boundaries between public and private responsibilities have not yet been drawn, in particular when it comes to the interface between producer responsibility and the formal collection system that collects most packaging waste. Finding a good working model there, respectful of relevant regulations, could be of great benefit to formal waste systems as well as the recycling industry. As the system develops, Indonesia will no doubt continue to define precisely **where the responsibility of producers ends and that of the public sector begins?**

FUNDING

Achieving the three government targets brings major benefits to Indonesia's environment and society. At the same time, achieving the targets does not pay for itself. As we have seen, only a small part of Indonesia's packaging waste can be collected and recycled under market conditions, with PET in urban areas as the most famous example. As is common across the world, the system as a whole requires continuous external funding. Estimates for the upstream (pre-consumer) funding challenge are difficult to make. The downstream (post-consumer) funding needs are estimated at IDR 54-67 trillion / USD 3.8-4.8 billion in capex (investments) and IDR 7-12 trillion / USD 490-826 million of annual operational expenditure until 2025, according to SYSTEMIQ, APEKSI and APKASI.¹⁶

In many countries, companies play a major role in co-funding waste management. In Germany, a country with a plastic waste volume comparable to Indonesia,¹⁷ producers pay over IDR 17 trillion / USD 1.2 billion annually into its packaging recovery organisation (PRO) system that co-funds collection, sorting and recycling.¹⁸ India and Taiwan are examples of countries also with substantial industry co-funding closer to home. In Indonesia, in practice, industry contributions are limited to voluntary CSR projects and represent much lower funding levels.

¹⁶ These calculations show the funding needs of meeting the target of 70% marine plastic debris reduction; achieving that target implies achieving the other two in the model used; SYSTEMIQ, APKASI and APEKSI, *Building robust waste system governance and securing stable, sufficient funding to achieve Indonesia's waste management targets* (forthcoming)

¹⁷ 4.75 million tons of household or commercial plastic waste in Germany in 2013 vs 6.8 million tonnes of municipal plastic waste in Indonesia in 2017; <https://www.umweltbundesamt.de/en/topics/waste-resources/product-stewardship-waste-management/plastics>; NPAP (2020)

¹⁸ Prevent Waste Alliance, 'How Germany's EPR system for packaging waste went from a single PRO to multiple PROs with a register', *EPR Toolbox*, 2020

In this section, we describe how the responsibilities outlined in the previous section translate to funding obligations for the public and private parts of the waste system, under current regulations.

Producers' funding obligations

Regulation 75/2019 states that the costs in carrying out waste reduction are to be borne by the producers.¹⁹ It does not mandate any specific funding amounts or mechanisms that producers need to follow to implement their waste management master plans nor does it specify fines for non-compliance. These characteristics lead some observers to classify producer responsibility in Indonesia as 'voluntary'. PRAISE for example stresses the voluntary nature of the Indonesia Packaging Recovery Organisation (IPRO) that its members have founded. Strictly speaking, it is not correct to classify producer responsibility as voluntary in Indonesia. It is already mandatory for companies to comply, although the exact expectations and the consequences for not participating are not yet clear to all parties.

In practice, company contributions to waste collection, sorting and recycling in Indonesia mostly take place in the context of corporate social responsibility (CSR) initiatives. Several of these programmes run in the tens of billions of rupiah / several millions of dollars annually. While welcome, these amounts are small compared to the overall funding challenge implied by the government targets.

A comparatively new development is the proposal in the Parliament of Indonesia to impose an excise on plastic carrier bags initially, and potentially on all plastic packaging at a later stage.²⁰ This excise could potentially be earmarked for funding waste management.

Government's funding obligations

As we saw above, Indonesia's Waste Management Law stipulates that regencies and cities are responsible for organising full waste handling in their area.²¹ The law also mandates both central government and local government to provide funding for waste management through local budgets (*Anggaran Pendapatan dan Belanja Daerah* or APBD) and the national budget (*Anggaran Pendapatan dan Belanja Negara* or APBN).

The (local) APBD for waste management comes from two main sources: retribution (user) fees, paid by households and businesses as well as non-retribution subsidies originated from tax, central government transfers and other sources of revenues. Retribution fees are likely the largest source of operational funding. It is a major priority for the ministries engaged in waste management to expand retribution fees as a funding source for waste management. The Minister of Home Affairs issued a major new regulation in January 2021 to make it easier for local governments to raise funds through retribution fees by providing formula to calculate the optimal amount to charge households and businesses.²²

¹⁹ Minister of the Environment and Forestry Regulation No. 75/2019 on the Roadmap on Reducing Plastic Pollution by Producers, article 26 (b).

²⁰ Reuters. 2020. *Indonesia Parliament Tells Government to Tax a Wider Range of Plastic Products*. <https://www.reuters.com/article/us-indonesia-economy-tax-idUSKBN20D0DH> accessed on 5 July 2021

²¹ Waste Management Law No. 18/2008, article 9 (b).

²² Permen Dagri 7/2021 regarding Tata Cara Perhitungan Tarif Retribusi Dalam Penyelenggaraan Penanganan Sampah

(Local) APBD is the main source of funding for the implementation of waste management both for capital expenditures (capex) and operational expenditures (opex). The ideal funding to achieve the government's waste handling target by 2025 is approximately IDR 22,000 per person per year for capex and IDR 43,000 per person per year for opex. The current average spending by local governments is approximately IDR 5,000 per capita per year for capex and IDR 19,000 per capita per year for opex, leaving a gap of IDR 17,000 per capita per year for Capex and IDR 24,000 for opex.²³ (National) APBN is mainly to assist local governments for large capital expenditures, such as new landfills (TPA) and new sorting centres (TPST or TPS3R) channelled through the Ministry of Public Works and Public Housing and the Ministry of the Environment and Forestry.

In conclusion, achieving the government targets requires large amounts of additional funding. It is standing government policy to increase the revenues of some existing sources of funding, notably retribution fees. Companies are required to fund the activities needed to meet their reduction targets, but in practice, industry contributions are often interpreted as being voluntary.

The previous section mentioned that the interface between producer responsibility and the formal collection system is not yet fully defined. This is even more true of the role of industry in funding formal waste management. Clearly, industry co-funding is not intended to replace or diminish the responsibility of local governments to implement waste management that covers all residents of Indonesia, but a funding gap nevertheless remains. An open question is whether private sector funding may provide a supplementary source of revenues in specific situations.

In any case, as the plastic excise announcement by the Ministry of Finance shows, it is conceivable that more financial contributions may be asked of industry.

Who pays what is a major policy question, or more precisely, **which share of the overall waste management funding needs would companies pay vs. the public sector vs. households?** If industry is required to contribute financially, through which policy instruments will this requirement take shape, for example excise, mandatory contributions to a producer responsibility organisation or by becoming operationally responsible for managing the waste that their products generate after use?

ENFORCEMENT

When funding expectations and responsibilities have been precisely defined, the challenge is to ensure that system performance is tracked and that all obliged parties comply with what is required of them. As we saw above, the waste management law of 2008 did not have sufficient provisions for enforcement. Once again, regulation 75/2019 provides an important step forward with the requirement for companies to submit a waste management master plan and to report annually on their progress. At the moment, this is done on the basis of self-reporting; there is no explicit enforcement mechanism e.g. through fines or administrative penalties, but it is understood that the government may publish the names of non-compliant

²³ SYSTEMIQ, APKASI and APEKSI, *Building robust waste system governance and securing stable, sufficient funding to achieve Indonesia's waste management targets* (forthcoming)

companies. As this mechanism is still new, it is too early to tell whether proves sufficient to ensure fair and effective implementation; and how it would deal with non-compliance.

Non-compliance may become an issue for certain material types closer to the 2028 date of the targets in regulation 75/2019. As we saw above, some of the recycled-content targets relate to material types with very low recycling rates today. Meeting them would either require the development of major new sorting and recycling capacity that are currently out of the money (e.g. for lower-value flexible materials), or it would require a switch away from using those materials. Either option would bring large costs to companies with a strong footprint in those materials. It is conceivable, perhaps even likely, that not all companies will be able to comply. A key success factor will be **how to set up a fair and effective enforcement system**.

PRIVATE-SECTOR INITIATIVES

The three government targets enjoy broad-based support among private-sector stakeholders. They are often mirrored by internal company targets that support this agenda.

Furthermore, dozens of private-sector initiatives have been taken in the past years, leading to what can be described as an emergent Indonesian producer responsibility ecosystem. The initiatives range from those taken by producers themselves to innovative new services that support producers in meeting their responsibility.

INITIATIVES BY PRODUCERS: CSR AND IPRO

The period between the 2008 law and the regulation 75/2019 has coincided with an expansion of waste-related **corporate social responsibility** (CSR) initiatives taken by 'producers' large and small, covering both the upstream and downstream aspects of packaging.

In August of 2020, the six companies united in PRAISE²⁴ founded **Indonesia Packaging Recovery Organisation (IPRO)** as a voluntary vehicle to jointly implement their producer responsibility. IPRO funds three categories of initiatives (see Figure 3: IPRO categories). A year after its launch, it funds collection, recycling and social inclusion activities in East Java and Bali. IPRO has indicated that its ambition is to exponentially grow its footprint in the coming years.

Figure 3: IPRO categories



As these categories show, IPRO's focus of activities is on post-consumer collection (formal and informal) and recycling, more than on pre-consumer reduction. We will see in the next section that this is common for PROs internationally.

²⁴ Coca-Cola, Danone, Indofood, Nestlé, Tetrapak and Unilever

IPRO has indicated that it aims to expand its membership to include other companies. SYSTEMIQ and APEKSI understand from several companies outside PRAISE that there is an appetite to join IPRO. At the same time, with six members (plus several companies considering membership) out of many companies, IPRO represents a minority of the packaging waste in Indonesia. From informal conversations with large domestic brands outside IPRO, the impression emerges that there is high variation among companies in awareness and appetite regarding packaging recovery organisations, and producer responsibility more generally. For now at least, these companies choose to shape their producer responsibility on an individual basis rather than through a collective such as IPRO.

At the time of writing, IPRO has been active for less than a year. It is too early to tell **which operating model(s) will emerge as the dominant vehicle for implementing producer responsibility**: a PRO system, perhaps centred around IPRO, parallel systems run by individual companies, a hybrid or something else altogether? How to ensure that this system is fundamentally open to non-multinational and non-PET based companies?

SYSTEM-ENABLING INITIATIVES: SERVICE PROVIDERS AND STANDARDS

An invaluable part of the emerging producer responsibility ecosystem are the dozens of start-ups that have come up across the archipelago to help companies meet their obligations. These include upstream players such as materials innovators Evoware and Siklus that offers a refill model that markets Wings Group, Proctor & Gamble and Nestlé products among others without packaging; as well as many downstream initiatives: the company Waste4Change that has provided producer responsibility collection and processing services to corporates for several years; and applications such as Smash, Octopus and Mallsampah.

A different kind of enabling private-sector initiative has been in defining standards. A team of global experts led by Verra has defined a Plastic Reduction Standard that is about to be tested in Project STOP in East Java with **plastic credits**, a concept that is closely related to producer responsibility. These standards help operationalise simple-sounding but operationally complex questions such as 'what counts as *additional* collection versus what would have been collected otherwise' and 'which forms of processing count as 'recycling''. However, further defining of what plastic credits mean for Indonesia's waste system and its implications to stakeholders are required to ensure a comprehensive understanding of the concept by key stakeholders.

The dynamism among these companies and the fact that one standard is on the cusp of being piloted shows that much is happening. It also shows that it will take time to give a final answer to questions such as: **what can the private sector do to enable government to monitor progress? Is future regulation necessary to set a common set of standards (and avoid freeriding)** or will companies voluntarily gravitate towards a common definition of what it means for a company to take its producer responsibility?

INDONESIAN PRODUCER RESPONSIBILITY IN AN INTERNATIONAL CONTEXT

Indonesia is not alone in Southeast Asia in dealing with the challenges of producer responsibility. While the specifics vary per country, most Southeast Asian countries see

a similar parallel development of regulation and emerging private-sector organisation. On regulation, Vietnam and Singapore stand out. The Vietnamese Ministry of Natural Resources and Environment has published a draft regulation on mandatory extended producer responsibility (EPR) for review. The Singaporean government has set up a mandatory registry where companies report their packaging footprint and will move to financial contributions by companies in 2025. In Vietnam and Malaysia companies have formed a PRO. So far, the emerging Southeast Asian systems, including Indonesia, have in common that they all feature a single industry-led PRO.

Elsewhere in Asia, India has a mandatory EPR system organised around individual companies. "PROs" in the Indian context are more similar to the service providers described above than to an organisation under the joint control of the 'producers' as IPRO or the Vietnamese and Malaysian PROs are. South Korea has a mandatory EPR system with multiple PROs. South Africa has PROs per packaging type with separate ones for PET, polyolefins and vinyl. Europe, the continent where the concept of extended producer responsibility was originally developed, has over thirty national EPR systems, some of them in operation for three decades. One could say that the European EPR systems have an easier problem to solve and are at the same time more complex than those found in emerging Asia. With near-perfect collection rates in most of Europe, promoting circularity is a more prominent concern than preventing environmental leakage; also, and waste pickers play only a minor role in waste management. At the same time, the maturity of those systems means they have been able to develop sophisticated registration and monitoring systems.

Regulation 75/2019 in Indonesia stands out internationally by using the term 'producer responsibility' for upstream reduction as well as recycling. In many countries, the term 'extended producer responsibility' is used for the downstream activities (collection, sorting and recycling) only, with at most a bonus/malus system for good (upstream) design through eco-modulation of fees.²⁵ As discussed, IPRO's focus on the downstream is in line with international practice.

Figure 4: Comparison between EPR systems

									
	Indonesia	Vietnam	Malaysia	Singapore	India	South Korea	South Africa	Germany	France
Mandatory EPR regulation	✓ (see section 'producer responsibilities')	✓ (Draft under review)	-	✓ As of 2025	✓	✓	✓ (Transition voluntary -> mandatory)	✓	✓
National reporting standard	-	-	-	✓	-	✓	-	✓	✓
Number of PROs	1	1	1	-	Multiple (see text)	Multiple	Multiple (see text)	Multiple	1

²⁵ In mandatory EPR systems with ecomodulated fees, such as the French system, EPR typically refers to the (extended) responsibility of producers to ensure their products are recycled or disposed of properly *after use*. Ecomodulation provides an incentive for good design, but good design itself is not considered part of the extended responsibility of companies in those markets

Overall conclusion: 75/2019 is a cornerstone regulation that materially advances the agenda and clarifies some questions around the responsibility of producers related to packaging waste. At the same time, it is too early to tell whether this regulation will prove sufficient for a producer responsibility system to emerge in Indonesia that materially contributes to achieving 70% less marine plastic debris, 30% reduction of waste at source and a 70% handling rate. The next years will tell how producers' responsibility exactly relates to that of local governments and other players, how much of the overall transition costs will be borne by producers, and what kind of enforcement system will ensure widespread compliance. SYSTEMIQ and APEKSI have asked these and other questions to government, to producers, to experts and others. The outcomes of these conversations are summarised below in Chapter 2.

2. VIEWS AND EXPECTATIONS OF STAKEHOLDERS

PARTIES INTERVIEWED

SYSTEMIQ and APEKSI spoke to 12 parties individually and in focus-group discussions (Figure 5: Stakeholders interviewed). The interviews had five objectives

- To engage the main **public and private stakeholders** on the topic of Producer Responsibility in Indonesia, both regarding regulation 75/2019 and PRO-type solutions
- To provide a **clear description** of the current state of affairs and of the views, expectations, concerns and potential roles of the main stakeholders
- To explore whether there is appetite with government and private players to **further develop the regulatory framework** on producer responsibility in Indonesia, and if so
- What the **scope of such a framework** should be
- What the **approach and timeline** could look like

Figure 5: Stakeholders interviewed

Stakeholders interviewed	
Government <ul style="list-style-type: none"> ✓ Coord. Ministry for Maritime Affairs & Investment  ✓ Ministry of Environment & Forestry  ✓ BAPPENAS (Devt planning ministry)  ✓ Ministry of Industry  ✓ Ministry of Finance  	Experts <ul style="list-style-type: none"> ✓ Sustainable Waste Indonesia  ✓ Indonesia Solid Waste Mgt Association  ✓ Waste4Change  ✓ National Waste Council ✓ Aliansi Zero Waste Indonesia 
Industry <ul style="list-style-type: none"> ✓ PRAISE / IPRO  ✓ ADUPI (recyclers)  	

SUMMARY OF STAKEHOLDER VIEWS

1. The term '(extended) producer responsibility' means different things to different stakeholders
 - For some stakeholders, 'EPR' refers to the obligations of companies under regulation 75/2019. In this definition "EPR" has an upstream and a downstream component. The downstream component is usually

associated with the informal waste stream more than the formal waste management

- For others, the term is nearly synonymous with the work of IPRO (downstream formal and informal waste management). This definition is more in line with the international use of the term
- 2. Regulation 75/2019 (the Roadmap for Waste Reduction by Producers) is widely seen as a cornerstone regulation. Stakeholders from both the private sector and experts have questions around implementation, in particular around what is specifically expected of companies and what the consequences are if companies are unable to achieve the targets. The Ministry of the Environment is preparing technical guidelines to provide an answer to those questions.
- 3. Government and the private sector emphasise that formal waste management funding is primarily a task for local governments (regencies and cities). Retribution fees are the main way to raise funds. EPR could provide a complementary source of funding in particular where circularity is concerned
- 4. IPRO is seen as a positive development. The views range from 'essential, transformative opportunity' to 'be careful not to disincentivise local governments' responsibility'. If the system expands, stakeholders raise:
 - System design questions: e.g. level playing field; relation to plastic excise; role for SMEs and flexibles
 - Strategic, but testable concerns: will this disincentivise retribution fee adoption? Is this allowed under current regulations? How to uphold safeguards/standards?

DETAILED OUTCOMES

TERMINOLOGY

The term '(extended) producer responsibility' is used in two distinct ways in Indonesia. Some stakeholders use the term EPR to refer to the obligations of companies under regulation 75/2019, i.e.

- Upstream: "to achieve the waste reduction target by producers, i.e. 30% compared to solid waste generation in 2028"²⁶
- Downstream: "The recycling and reuse of waste (...) must be supplemented by efforts to take back products, product packaging, and/or container waste to be recycled and/or reused."²⁷

This first definition is most common in government and among experts who are familiar with the contents of regulation 75/2019. Other stakeholders, in the private sector, but also in ministries and among experts with ample international exposure, "EPR" is nearly synonymous with the work of IPRO or PRO systems outside Indonesia: companies taking responsibility by contributing to the collection and recycling of the

²⁶ Minister of the Environment and Forestry Regulation No. 75/2019 on the Roadmap on Reducing Plastic Pollution by Producers, article 2.1

²⁷ Minister of the Environment and Forestry Regulation No. 75/2019 on the Roadmap on Reducing Plastic Pollution by Producers, article 7.1

plastic they put on the market after sale.

QUOTES FROM THE INTERVIEWS

- "EPR means that producers are responsible for post-consumption waste products or waste packaging in the value chain. It is about the producers, how to make sure that they do not externalise the waste impact of their business. EPR is the by-product of the 'polluter pays principle'. 'Extended' means it is outside producers' normal responsibility; so it has to be outside the organisation, hence post-consumer."
- "EPR can be defined as extended producer responsibility. However, if translated from Permen LHK 75/2019, the focus is on reducing waste by producers." *Error! Bookmark not defined.*
- "True EPR must be comprehensive. From upstream of production to post-consumer, including talking the waste produced by producers."²⁹
- "In our opinion, EPR means that producers must clearly state the type of plastic on all packaging, whether it can be recycled or not."³⁰

REGULATION 75/2019

All interviewed parties agree that the Roadmap for Waste Reduction by Producers (MoEF regulation 75/2019) is a cornerstone regulation. Companies appreciate the overall direction of the regulation; the principles fit well with their corporate objectives, even if the targets of regulation 75/2019 are often more ambitious than internal company targets. Questions remain around implementation.

Stakeholders on responsibilities and the scope of the regulation

Many stakeholders appreciate how ambitious the regulation is; some experts indicate that it is difficult to implement for plastic types with a low after-use value. Some find it difficult to imagine the transformations needed in the value chains of lower post-consumer value materials such as multi-material waste. Others indicate

QUOTES FROM THE INTERVIEWS

- "The problem with relying on waste banks is that you have the plastic of no value which the waste banks don't accept"
- "If by design the system requires the producers to be responsible for the waste, then that should be enough cost for the producers to redesign their supply chain, so it ensures that the producers can easily access the post-consumption collection containers. The important thing is that the producers can take it back and deal with it the most economically viable way"
- "The way it is now, there is no value in the waste, being treated as zero value that has to be eliminated. Whereas the circular system that we are trying to move into, requires that waste has value, from the design of it. If it has value, then it will need to be picked up by an enterprise, and not tax-payers"
- "When you have EPR, the goal is to increase supply for the recycling industry, so that recyclable waste (volumes) can increase."³¹

²⁸ Footnotes provided if the original quote was in Bahasa "EPR bisa diartikan sebagai tanggung jawab produsen yang diperluas. Namun jika diterjemahkan dari Permen LHK 75/2019, fokusnya adalah pengurangan sampah oleh produsen."

²⁹ "EPR yang benar harus komprehensif secara menyeluruh. Dari awal sebelum produksi sampai paska-konsumen, dengan menarik sampah produksinya oleh produsen."

³⁰ "EPR menurut kami adalah produsen harus mencantumkan secara jelas jenis plastiknya di setiap kemasannya, bisa didaur ulang atau tidak. Jika tidak, maka kemasannya itu harus dibuang."

that this is the point of the regulation – to provide incentives for producers to change their product mix towards more recyclable materials.

As discussed above in the section on *Producer responsibilities under current regulation*, several stakeholders consider EPR voluntary. In that context, opinions are divided about whether the system should be mandatory or voluntary. Some believe that the only way to achieve the 30% reduction target is by ensuring that all (major) parties participate and that it works for all plastic types. Others fear that a mandatory system would be too much of a burden on industry. It is pointed out that the system should be designed with small and medium enterprises in mind, as well as large companies.

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- *"It is already stated in UU18 and the PP that the producer is responsible. However, it is still unclear whether it is mandatory or voluntary."*
 - *"We cannot rely on the goodwill of individual companies. It should be industrial change. That means 'every company does this'. We can learn from Japan. There, EPR is mandatory, but the government does not define the 'how'. Then industry responds, 'if we are responsible for the post-consumption product or even the packaging, we are going to create the system, proof of concept.' After this is a success, they go back to the government and propose a system. Then the government can create a mandatory guidance to be followed by every company. Now, it's still voluntary and pertains more to image rather than responsibility"*
 - *"This EPR should not be mandatory. This will burden industry. This responsibility should be distributed to all stakeholders, becoming a shared responsibility of e.g. producers, consumers, the recycling industry, government and society, not only focusing on industry."³²*
 - *"The government's job is to provide the infrastructure and services that are needed for households. The companies' is to provide the reverse logistics that will enable their trash to come back to them or their partners"*
 - *"I think there will be a role for state-owned enterprises and state-owned BLUs, as well as private enterprises. And all of those players will have to move to formalising the informal sector, employing the informal sector, I think that should be the vision"*
 - *"EPR is used for waste reduction and handling. The EPR system should work for all plastics, not just bottles or anything else. Many parties are too focused on PET"³³*
 - *"It is important that the system is not only designed for large companies, but also looks at producers who are small and medium-sized businesses"*
 - *"Many home industries use products that cannot be recycled, because they are not aware of regulation 75/2019"³⁴*
-

³¹ *"Dengan adanya EPR ini, tujuannya adalah membuat supply untuk industri daur ulang, untuk sampah-sampah yang bisa didaurulang bisa bertambah."*

³² *"EPR ini seharusnya jangan diwajibkan yang akan memberatkan industri. Tanggung jawab ini seharusnya didistribukan ke semua stakeholder, menjadi tanggung jawab bersama, seperti produsen, konsumen, industri daur ulang, pemerintah dan masyarakat, tidak hanya fokus ke industri"*

³³ *"EPR digunakan untuk pengurangan dan penanganan sampah. Sistem EPR bekerja di semua plastik, bukan saja di botol atau yang lain. Banyak pihak yang terlalu fokus pada PET"*

³⁴ *"Justru banyak industri rumah tangga menggunakan produk yang tidak bisa didaur ulang, karena tidak aware atau peduli terhadap Permen LHK 75/2019"*

Selected quotes from the interviews – funding

Many stakeholders interpret the lack of specific financing mechanisms in regulation 75/2019 as there not being a financial component to the regulation. Some stakeholders call for a clear financing mechanism to be put into place, including guidance on fees. Others emphasise that the point of regulation 75/2019 is not financing, but the responsibility of companies to take care of the waste their products give rise to. There seems to be broad agreement that local governments are first responsible for waste management in their area, including funding through retribution fees.

- *“Regulation 75/2019 does not seem to have a financing component nor an institutional component to manage the finances. Making clear that companies are financially responsible for their own waste management without needing to define the amount of finance and form of financial distribution would move the situation forward to financial responsibility”*
- *“So far, the various financial pledges for waste management have nowhere to go. At the moment its channelled into programs, but not to a concentrated fund”*
- *“In Permen 75/2019, nothing mentions that producers need to spend money to finance the waste management of their products. EPR is not to provide funding, but to take care of the waste. The producer's job is to design environmentally friendly packaging so that it can be reused/recycled. After it becomes waste, it must be taken back through drop centres”³⁵*
- *“We do not agree that waste is a resource, but we agree that waste has a result or a bonus. Waste is not a profit centre but a cost centre. The first sources of waste financing are the APBN and APBD. The second source are waste producers, namely retribution fees. And the third source of waste financing is EPR”³⁶*
- *“One of the most important things for KLHK is to create a calculator. Big company, big responsibility, and vice versa. If you ship 1000 products, you are responsible for 1000 products, not 100 like in a voluntary system. The calculator will show how much waste every company is responsible for. They need to submit to the government and need to give proof that they have done it, or they give proof they spend money equal to the volume to a third party who can give proof they are the ones who do it. This can be a role for IPRO for example”*
- *“Permen 75 provides the carrot, but not the stick at the end”*

³⁵ *“Di dalam Permen 75/2019, tidak ada yang menyebutkan bahwa produsen mengeluarkan uang untuk pembiayaan pengelolaan sampah produknya. EPR bukan untuk memberikan pendanaan, tapi mengurus sampahnya. Tugas produsen: mendesign kemasan yang ramah lingkungan agar bisa dipakai kembali/daur ulang. Setelah jadi sampah harus ditarik kembali lewat drop center”*

³⁶ *“Kami tidak setuju kalau sampah itu merupakan sumber daya, tapi kami setuju kalau sampah ada hasil atau bonusnya. Sampah itu bukan profit centre tapi cost centre. Sumber pembiayaan sampah yang pertama adalah, yaitu APBN dan APBD. Sumber dari penghasil sampah yang kedua, yaitu retribusi, iuran. Dan sumber pembiayaan sampah yang ketiga, adalah EPR”*

Selected quotes from the interviews – enforcement

Several parties express a need for more clarity on how to implement the regulation. The Ministry of the Environment and Forestry is working on technical guidelines to address those needs. Some experts (but not industry representatives) indicate that a stronger enforcement mechanism needs to be developed. Others ask for more clarity on financing mechanisms, or even on fee levels through a calculator.

- *"Both KLHK (MoEF) and Kemenperin (Mol) play an important role in enforcement"*
- *"There should be more real incentives for this regulation. If we agree that this is mandatory, then there should be a consequence. Public shaming is too small"*
- *"The question is 'how can we enforce this'. It can be you can create your own reverse logistics by your own efforts, but then you need to show you meet the minimum requirements. Or you need to pay a third party to meet the minimum requirements"*
- *"In regulation 75/2019 there are no sanctions, so it is very necessary to expand law enforcement"³⁷*
- *"The highest standard for compliance for redesign is mandatory SNI [national standards]. If we are looking for high level of compliance it has to be mandatory, not voluntary. It can start with certification before moving on to mandatory SNI"*
- *"Permen LHK 75/2019 can perhaps be applied to the top-five producers first. If it runs well, it might contribute to the reduction of waste even if it is not up to 30% [the reduction target]. At least there is a contribution in terms of reduction and handling"³⁸*

IPRO

IPRO is welcomed across the board among government representatives and experts. It raises a number of questions that touch upon system design and 'strategic, but testable' concerns.

Nearly all parties have a positive attitude towards IPRO. The views range from 'essential, transformative opportunity' to 'good development', but interviewers stress the need be careful not to disincentivise local governments. There is wide support for activities in the informal-sector and recycling supply chain; support was more mixed for IPRO funding the formal waste system – for some stakeholders this is an essential part of EPR, others wonder how this would work alongside the responsibilities of local governments. Industry raises the question how EPR would work alongside plastic excise.

The questions and concerns fall into two groups:

- System design questions
 - a. How do industry contributions via the PRO relate to plastic excise? Would companies need to pay twice, where now they pay voluntary contributions?

³⁷ "Di Permen 75/2019 belum ada sanksi, maka sangat perlu penegakan hukum yang diperluas."

³⁸ "Permen LHK 75/2019 mungkin bisa diterapkan di lima besar produsen terlebih dahulu. Jika bisa berjalan dengan baik, mungkin bisa berkontribusi untuk pengurangan sampah walau tidak sampai sebesar 30%. Paling tidak ada kontribusi di sisi pengurangan dan penanganan."

- b. How to ensure a level playing field? That is to say, how to make sure that all companies pay a fair share, and the burden is not borne by a small amount of companies
 - c. How to make sure this system works for smaller players, for non-multinational player and for all packaging types, including plastics with low recycling value?
- Strategic, but testable concerns
 - d. Is there a way for PRO contributions to complement or even accelerate the expansion of retribution fees? How to ensure that PRO contributions don't disincentivise local governments?
 - e. Is it legal for companies to pay into formal waste management systems? How about informal systems?
 - f. Which system to develop or use to ensure that transparency, social and environmental standards are upheld?

Selected quotes from the interviews – responsibilities

Closely linked to the discussion about responsibilities above, stakeholders have different views on whether membership of a PRO should become mandatory over time. The importance of a level playing field is pointed out – meaning a fair distribution of burden on companies.

- *“Whether IPRO should be only voluntary or mandatory... actually, the level playing field must be clear first, so that the entire industry can participate. I agree if all industries do the same as IPRO, voluntarily. However, this EPR policy should not be too restrictive or burdensome for these industries. There must be a role for local governments, especially in terms of infrastructure and collection; these must be assisted by local governments”³⁹*

Selected quotes from the interviews – funding

There is support for companies pooling funding through a PRO as opposed to through individual CSR projects. Several stakeholders see benefits in PRO funding of local government handling. However, they point out that private entities cannot directly fund local governments, this is only possible when local waste management is organised for example as a *badan layanan umum* (BLU) – a form of local-government owned business. One stakeholder points out that EPR fees would not much affect the affordability of products much.

³⁹ “Apakah IPRO itu hanya voluntarily atau harus mandatory, sebetulnya ini harus jelas dulu level playing field-nya, sehingga seluruh industry bisa melakukan hal ini. Saya setuju kalau semua industri melakukan hal yang sama dengan IPRO, voluntarily. Namun demikian, kebijakan EPR ini jangan juga terlalu mengekang atau membebankan dari para industri tersebut. Untuk itu harus ada peran-peran dari pemerintahan daerah, khususnya dari sisi infrastruktur dan pengumpulannya yang harus dibantu dari pemerintah daerah.”

- "We don't want to rely on CSR, that is ineffective"
- "Producers have to take back the waste in their own way. The private sector cannot give money directly to local governments. It has been regulated in this MoEF regulation, companies can provide waste management funds only to private companies or [local government-owned] business entities that have received permits from the government, and have been certified by the government." *"Error! Bookmark not defined."*³⁶
- "Large companies already have programs to reduce plastic in their packaging products. However, this must be accompanied by a program from the local government – the handling. Currently, in my opinion, the problem is the lack of funding from the local government for handling so that waste handling is not managed properly" *"Error! Bookmark not defined."*
- "Producers need to internalise the cost of the product. They're afraid that they are hurting affordability, but that is not true. It would only contribute a little to the cost of products. Some people are afraid that this will damage the buying power of society, when in reality it's not much, it is only around IDR 100-200 extra per product"³⁵
- "In this system, we need to create the financing mechanism, because EPR is about the financing mechanism. In Indonesia we need opex, not capex. CAPEX we can raise from the private sector, donors, etc. The business model should be coming from 15% EPR money, 85% from the waste generators (retribution fees), government can also subsidise it through the APBD"
- "The question is whether the government can regulate that, can the government ask the producers to make a PRO and put money there? Perhaps with a BLU fund such as the CPO (crude palm oil) fund they could?"

STAKEHOLDER VIEWS ON NEXT STEPS

Several stakeholders expressed a need to develop the system further. Both in government, in the private sector and among experts, there were leaders who were willing to explore what a regulated PRO system could look like in a structured process. Many stakeholders expressed the need to involve a much broader group of companies.

- "Involve the associations too, KADIN, Asosiasi Pengusaha, APINDO, GAPMI, Persatuan Perusahaan Kosmetik Indonesia"
- "Many of these companies have not even heard of the existence of a PRO in relation to industry and waste management"⁴⁰ *"Error! Bookmark not defined."*³⁶
- "The EPR must be based on Law 18/2008 and follow from regulation 75/2019, so it cannot deviate from these two regulations. Because these two regulations are already positive law that must be implemented. If you want other regulations outside the two regulations, you must change the law or the rules first. So the next step is how to implement regulation LHK 75/2019"

⁴⁰ "Banyak industri-industri ini belum mendengar bahkan tidak mendengar keberadaan PRO dalam hubungannya dengan industri dan pengelolaan sampah"

⁴¹ "EPR harus berdasarkan UU 18/2008 dan diturunkan menjadi Permen 75/2019, sehingga tidak boleh keluar / lari dari kedua peraturan ini. Karena kedua peraturan ini sudah merupakan hukum positif yang harus dijalankan. Jika mau peraturan yang lain di luar kedua peraturan tersebut, harus merubah UU atau aturannya dulu. Jadi next step adalah bagaimana mengimplementasikan Permen LHK 75/2019 ini"

3. POTENTIAL WAY FORWARD

Throughout the interview process, stakeholders offered suggestions for developing the regulatory framework of producer responsibility in a number of ways, mostly related to regulation 75/2019 and to building out Indonesia's PRO system. For the PRO system, there were two categories of questions (more details in chapter 2):

1. Questions about PRO system design

- a. Relation to plastic excise
- b. Level playing field among producers
- c. Making the system work for smaller players, for non-multinational player and for all packaging types?

2. Strategic, testable concerns about ensuring a good fit between the PRO and the formal and informal waste system

- g. Complementary source of funding without disincentivising local governments to expand retribution fees
- h. Legality of PRO fees paying into formal waste management systems
- i. Transparency, social and environmental safeguards

RECOMMENDATION 1: MOEF IN THE LEAD ON 75/2019; NO FURTHER ACTION FOR NOW

For the suggestions related to regulation 75/2019, we propose to keep MoEF firmly in the lead. Many of the questions about regulation 75/2019 are of a clarifying nature, or they are suggestions that relate to aspects of the regulation that parties can have different perspectives on, such as whether there is a need to specify funding mechanisms at this point in time. From what we understand, MoEF is aware of these suggestions and is in the process of issuing technical guidelines to complement the regulation. These will no doubt give answers to some of the questions raised. It is of course important that these technical guidelines are well socialised and that stakeholders have the opportunity to give input before they are final. Once issued, it might be helpful for MoEF to conduct a webinar or roadshow to introduce the regulation and technical guidelines and provide a forum for stakeholder questions to provide more clarity.

As the regulation is relatively recent, it is too early to assess the results from the first round of per-company waste management plans. Therefore, for issues regarding regulation 75/2019 the authors' advice is to first observe the effects of the regulation before starting a further regulatory development process. That is, unless there are specific requests from MoEF. The authors judge regulatory development work outside MoEF to likely be ineffective.

RECOMMENDATION 2: FORM A PUBLIC-PRIVATE WORKING GROUP THAT PUBLISHES A COMMON VIEW ON PRO SYSTEM DESIGN

There is a need to articulate clearly what a regulated PRO system could look like (without committing to any particular outcome). This could take the shape of a **facilitated dialogue** between a small group of key players, e.g., a committed working group / coalition of the willing, of at least

- A national government party, e.g. a leading ministry
- A contributor, e.g. PRAISE
- (Ideally) A beneficiary, e.g. the association of city governments

This working group would deliver a **regulatory and institutional blueprint & timeline** for a regulated PRO system in Indonesia

- Detailed answer to the question “who pays what to whom for what?”
- Outline of conditions for success (e.g. no double taxation, standards)
- Recommendation on legal framework, e.g. Presidential Decree, link to existing regulation etc.
- Sketch of an institutional set-up fit for the Indonesian situation: company registry or not, verification system etc. Who controls what? When to implement what?

RECOMMENDATION 3: USE IPRO PILOTS TO TEST KEY CONCEPTS

Integrate the **testing of practical solutions** to the issues raised by stakeholders into the next funding round of IPRO Category B. Beyond their usual obligations, parties receiving funding would need to contribute to the development of the system by

- Finding a practical set-up in which retribution fee expansion is not disincentivised (the current set-up of IPRO Cat B is a potential solution)
- Ensuring that private-sector funding of public systems legally compliant (e.g. by paying directly to the operator (BLUD) instead of the regency budget)
- Meeting transparency and social/environmental safeguards by proposing standards & a verification system

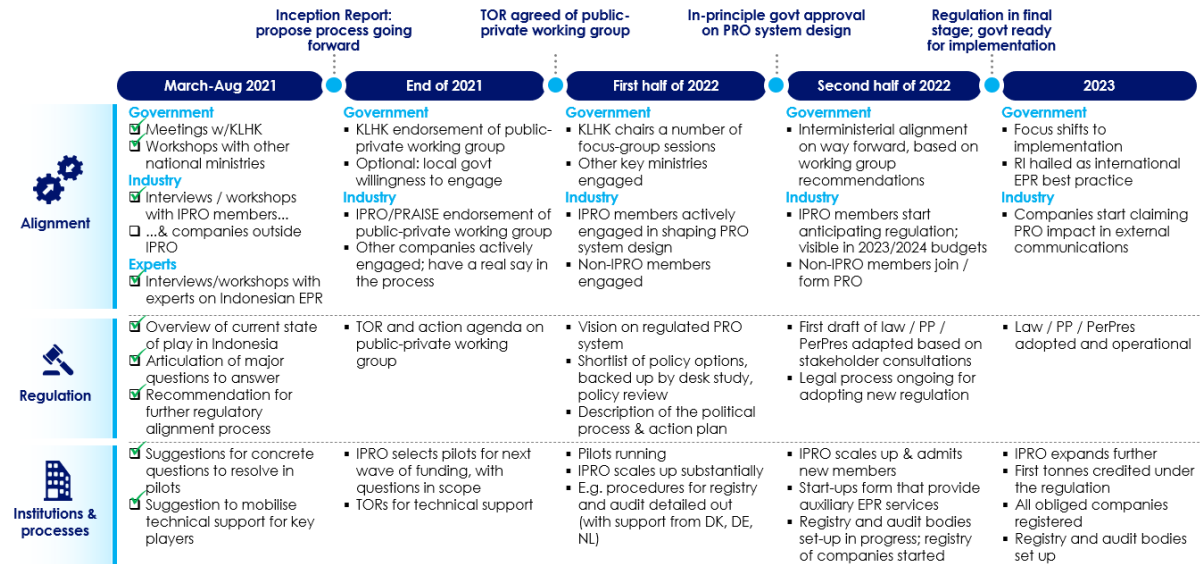
RECOMMENDATION 4: PROVIDE DIRECT TECHNICAL SUPPORT TO KEY PLAYERS BASED ON THEIR NEEDS

In addition to system design questions, key players are looking for expertise on some technical aspects of developing producer responsibility schemes. It is important to mobilise technical support to ensure these players are successful. For example:

- **Technical support to IPRO** from European experts (DEPA, European PROs) e.g. via P4G

- **For discussion: direct support on topics** such as deposit return schemes upon the request of MoEF

INDICATIVE TIMELINE



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