

POLICY BRIEF

Rethinking Extended Producer Responsibility in Asia from the perspective of Circular Economy

Ever since Extended Producer Responsibility (EPR) was coined as a policy principle in 1990, it has gained interest among policy makers and other stakeholders who are working to lower the impact of manufactured products along their life-cycle chain. This is recently amplified as today the concept of Circular Economy (CE) is gaining momentum. Although EPR focuses on the significance of the end-of-life of products, today a reallocation of responsibilities is taking place with the additional purpose of promoting product design improvements.

With this growing interest in EPR, it is time to critically analyse 30 years' worth of applications, potential, and challenges and draw conclusions about lessons learnt. It is clear that many countries with EPR legislation, for instance the member states of the European Union (EU), have seen substantial improvements over time in terms of waste collection, for example in separate collection for discarded products. However, to support a shift towards CE, more needs to be done in terms of designing products at the outset for re-use, durability, reparability, material recovery, and using materials recovered from recycling during the manufacture of high-quality products, along with concerted action to promote secondary markets for recuperated materials.

This policy brief proposes to support change with a focus on countries in Asia, reporting on a project conducted by four experts with considerable experience working with EPR globally, with a special focus on India, Malaysia and Thailand. Supported by the EU-financed program SWITCH-Asia, the goal is to get the existing and planned EPR systems in these countries, as well as in all of Asia, to participate in the development of new policy implementation that will help pave the way towards CE in our societies. More information on this topic can be found in the policy paper published by SWITCH-Asia.

EU experiences

Extended Producer Responsibility developed rapidly in the European Union. The separate collection of discarded products – e.g. packaging, electrical and electronic equipment, batteries – has grown substantially, and facilities for sorting and recycling have equally become more wide-spread and more advanced. The general design of the systems has been that producers gather in so-called Producer Responsibility Organisations (PROs), collect fees from producers for the products put on the market, and then organise the collection of targeted products using their own services, or by subcontracting or purchasing services from municipalities and waste management companies.

The cost for paying the fees to PROs in Europe is overall quite reasonable (or even low) for the producers. What should be understood is that municipalities in Europe often cover waste management costs by fees that are paid directly to them without relying on money from national governments. Although EPR is also a means for adding funds to waste management budgets, this does not mean that all municipalities are happy about giving up even partial control. This has led to a compromise in which some countries have elaborated an EPR system where the producers provide partial financing and municipalities retain the control of waste management.

Low EPR fees have made it less interesting for many producers to spend either money or time improving the design of their products to lower production costs, especially because PROs work as collective organisations with the same fees for products of a similar type, regardless of the design or suitability for recycling. This situation has led to a general lack of product design improvements since any benefits are less connected to real cost gains than to image gains (which are not clearly understood or appreciated by consumers).

In addition, in cases where there are competing PROs, competition might not result in tangible improvements in the quality of collection systems or recycling work. The idea that PROs will compete and offer better services to the producers run the risk of 'racing to the bottom' if incorrect data and substandard work are tolerated. So, the way to deal with type of problem, and ensure that the competition is fair, is to set up oversight, typically by instituting legal rules and monitoring the results. This in turn means that high demands are placed on governments to control the actors in EPR systems. When control does not work well, the system risks being compromised. Moreover, there are also ideas about increasing the demands for what is accepted as recycling, so as to move beyond downcycling – where the recycled material cannot be used for the same purpose over again but must be used where the quality demands are lower, and often substantially lower.

Ever since EPR systems were implemented in the EU a few decades ago, we have experienced a real change in the management of the discarded products. What has worked well in EU countries is to get citizens to participate, and to source separately according to established systems that already exist in their constituencies. Awareness-raising campaigns and simple, convenient solutions are approaches that have led to good results. In many cases, the information is transmitted to children in schools, or even in kindergartens, and the children take part in informing and convincing their parents and relatives. Citizens by and large do not expect to be paid for discarded products, and the role of the so-called informal sector is also very limited in Europe compared to many Asian countries, with the exception of products with a high second-hand value in the market, domestic or foreign, such as mobile phones and computers.

Despite this, many areas could still benefit from improvement. The overarching goal should be to build society on a circular economy and, within this framework, to create incentives for improved durability and product repairability, with built-in recycling at the end of product life. A CE-economy strategy would lead to materials becoming the basis for a new, repeated, rounds of manufactured products, requiring good quality input materials lending themselves for upcycling. Such a strategy would also make more input materials available in Europe and support local manufacturing.

Experience from three Asian countries

This policy brief is based on a study that has looked closely into the situations and experiences in Asia, and specifically in India, Malaysia and Thailand with respect to EPR and overall waste management. It is clear that these countries are experiencing considerable challenges with the rising amounts of waste being produced in the current consumption society. To raise the necessary financing for modern waste management is, however, a very difficult task.

It has clearly emerged that a broad, easily accessible, well-structured, and robust collection network is at the core of a healthy EPR-based system and is essential to achieve the goal of enabling circular economy. People and bulk consumers need a widely distributed formalised collection network covering homes, offices, institutions, and public spaces that they can readily access to play their role in recycling. The informal sector in these countries is both helping to collect, sort and recycle some of the products consumed, but is also creating substantial environmental and social problems when working with tough and problematic treatment of discarded products in collection, dismantling and recycling.

EPR has some history in these countries, but has so far not led to very impressive implementation. In most cases, the relevant legislation has not been enforced. In India there are several laws that have been passed, but results seem to be challenged by governance issues and the lack of enforcement at multiple levels. Complex questions such as imposing rules to cover all the intended products on the market, or creating fair competition conditions among PROs have yet to be organised. In Malaysia, a policy to implement EPR is in place for selected waste materials such as household electronic waste and packaging waste. However, the implementation is still in the pilot phase, and proper legislation and an institutional framework to implement EPR is still in its infancy. The stakeholders in Thailand are receptive to EPR, and there have been multiple voluntary initiatives on the part of individual brands and industries. However, there is still a need for a legal backing order to scale up the work. In this direction, the Thai Pollution Control Department is in the process of drafting EPR laws for packaging waste and waste electrical and electronic equipment (WEEE).

The regulated stakeholders of EPR are not being treated according to the quality of work they do. The current monitoring mechanisms do not have the breadth or capacity to analyse the data, conduct regular in-depth audits, and assess the work being reported on an ongoing basis, leading to a situation where the mere submission of paperwork is replacing compliance. This in turn sends the wrong signals, resulting in malpractices like double counting or misreporting, e.g. the reporting of targeted achievements, but with little collection/recycling having been done. In such systems, the low costs of compliance become the sole decision factor, leading to the above-mentioned race to the bottom.

The quest to take steps towards a CE has been recognised, but further development is necessary concerning the informal handling of waste, including recycling, in order to make better use of collected waste. In recent years, with the advancement of EPR-based regulations, there has been a growth in dismantling and recycling units. However, there is an urgent and critical need to more systemically guide the set-up and functioning of these units by bringing in standards, environmentally sound technologies with a focus on depollution, strict monitoring mechanisms, harmonised reporting methods, and benchmarking.

A centralised digital system for effective end-to-end monitoring of EPR implementation has also emerged as a necessary requirement. Digitising the entire process, from submission of all documents pertaining to EPR compliance to monitoring implementation, facilitates the task of each actor and integrates accountability and transparency across the value chain. The lack of fair enforcement, the sine qua non for a level playing field, needs to be addressed to make EPR systems work.

Conclusions and Proposals

There is a clear need for improved waste management in the three Asian countries focused on in this policy brief. The challenging situation described in these countries is not unique, and is similar to the one that can be found in many Asian countries and elsewhere. Extended Producer Responsibility (EPR) promises to address an important part of these challenges. By tying the costs of waste management to consumption, the much-needed resources for waste management will stand a better chance of being raised. EPR also gives incentives for product design improvements. How strong these incentives will be depends on the implementation of the EPR rules. There will also be room for producers to influence the collection, sorting and recycling activities based on their knowledge of how competitive markets operate. While collection systems are indeed mentioned in today's EPR regulations, a stronger emphasis is needed on the nature, geographic scope, structure, financing the setup and running the collection systems. The clearer the rules on collection systems, the better their implementation and effectiveness will be. The EPR regulations should also spell out the need to create awareness among consumers/citizens and encourage them to recycle. It is important that any regulations in this area clearly lay down the details of what needs to be done so that awareness can become actionable and lead to an increase in collection rates.

It is expedient to link the goals of EPR to CE so as to continuously strive for the long-lasting durability, re-use and reparability of products, as well as their recycling, which will create high-quality used materials that can be refurbished for robust use and not just discarded as waste. This strategy will help maintain resources for continued use, as well as furnish local supplies of raw materials for manufacturing activities where resources are scarce. Such an approach, which will imply a breakthrough in current EPR systems will induce producers to design products that will better fit into the Circular Economy.

Currently, a critical lack of guidance and serious efforts to benchmark the costs of compliance at the end-of life product level is leading to a 'Race to the bottom' (i.e. a focus on the lowest cost of compliance) which is essentially leading to poor quality collection and recycling systems along with a range of malpractices. It is urgent to assess the appropriateness of the funds being spent by producers, and by PROs/recyclers on behalf of the producers.

The monitoring mechanisms for EPR compliance should be strengthened by deploying resources and building capacities at the enforcement end so that all submitted data and practices being followed on ground can be assessed thoroughly on an ongoing basis. This is critical to ensure that no malpractices emerge or continue.

To enable a level playing field, EPR-based regulations have the potential to introduce real transparency along with the public disclosure of data that would showcase the obligations met by the stakeholders, by exhibiting the actions accomplished and requirements met by producers, PROs, recyclers, retailers, public authorities, municipalities. Non-confidential data sets could be made available for public scrutiny.

The three countries in special focus for this study, namely India, Malaysia and Thailand, all have substantial so-called informal sectors involved in waste management activities such as collection, sorting, dismantling and recycling. These informal activities rely on cheap labour that can outcompete more environmentally and socially harmonized activities. It is thus necessary to find inclusive solutions that gradually lead to more formalised activities with better working conditions, improved environmental work and a higher quality of the recycling chain. Well-defined roles allocating the responsibilities across the stakeholders is of critical importance for the success of EPR and the enablement of circularity. The transition of the waste sectors from a semi-informal to a formal and regulated economy will be successful only when standards are implemented and adhered to by the entire value chain, including producers, PROs, recyclers and other relevant stakeholders.

In addition to the proposals derived from the experiences of the three countries, it is also essential that the legislation would create fair rules for the various producers, as well as waste management actors. Such rules must also be followed up with fair, competent supervision by the authorities. Beyond the creation of rules, the EPR system must also be supported by training the inspectors and other personnel who will be

carrying out the oversight work for the authorities. These systems must also work against corruption and cheating. Good systems for data gathering and processing must be established and made available for verification. Most importantly, monitoring and enforcement mechanisms must ensure a halt to the 'race to the bottom' and ensure that each stakeholder is held accountable and liable for its part of the work in the value chain.

To enable circularity, detailed reporting by the recyclers of both the input and output fractions of end-of-life products/packaging, in a harmonised 'mass balance report' format, must be put in place to help generate state and national level inventories of secondary raw materials, while eliminating leakages and malpractices. Efficient and effective recycling systems will enable material recovery from collected end-of-life products and become the new sources of secondary raw materials.

An important task in all EPR systems is the education and capacity building of all relevant actors in society. The consumers must be convinced to participate in and support the systems. An important step is to reach the children in at kindergarten and primary school levels, and to transform the children into agents of change who can convince parents, relatives, and friends of the need for action towards a Circular Economy.

For developing countries, passing an EPR law can be a crucial milestone. But the law must have clear mechanisms to deliver results, and preferably it must integrate the existing systems to be cost effective. Enforcement of reporting standards, enhanced transparency, and capacity building of enforcement agencies are essential components in well-functioning systems. For countries without existing systems, it is essential to anchor the EPR systems in adequate laws. As waste management and recycling are typically dependent on the informal sector, it is necessary to find ways to include this sector and enhance its work, without unnecessarily compromising future environmental and social goals.

The EPR-based rules could create provisions for producers to have dedicated budgets linked to the products put on the market (spend/kg) for creating awareness, and setting up collection and recycling systems. To ensure the sustainable and optimal supply of funds, EPR-based policies could create an enabling environment in which the producers can load the costs of compliance and going circular on the retail price of the products and pass them to the consumers.

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