



## Extended producer responsibility

### Key point

- *Sharing or extending the responsibility for the treatment of used products to producers is one way to internalize the ecological costs of waste into the design and production of products.*

### Extended producer responsibility explained

The extended producer responsibility requires producers to take certain physical or financial responsibility for the treatment of products at the end of their life cycle.

In a conventional approach, the production, consumption and treatment of waste are carried out separately by producers, consumers and governments. For some types of products, the amount of waste and the potential to reuse and recycle are profoundly designed into the production process. Producers thus can have a hand in designing goods and selecting materials in a way that prevents waste, reduces toxic materials and increases the recyclability of products from the beginning of a product's life cycle.

The types of waste that are best covered by the extended producer responsibility is still being tested and explored. In OECD countries, the extended producer responsibility has been applied to packaging waste, electronic and electrical equipment, batteries, bottles, paint cans, automobiles, waste oil, tyres and refrigerators.<sup>1</sup>

The scope of producers can range from brand owners to manufacturers, seller/vendors and importers, depending on the types of products and wastes. For some developing countries without a manufacturing industry, the main targets can be importers and sellers.

### How it works

Producers can be assigned physical or financial responsibility with different scales. Setting (collection, recycling or recovery) targets upfront and matching the specific operating scheme with the types of waste are two key factors for success, with consideration given to national contexts, markets and policy priority. The scheme can manifest in several ways:

- **Mandated product “take-back”** requires producers and vendors to be responsible for the collection of products and packaging at the end of the useful life. Producers are responsible for setting up supportive system for collection, take-back and recycling (processing). Governments may require each producer to meet specific recycling or collecting rate targets. The scheme has been applied to automobiles, electric and electronic products and packaging.
- **Deposit and refund scheme** is a type of product take-back policy and refers to a payment (deposit) made by manufacturers and importers of certain products into a fund. Consumers are given a refund when returning the products to the dealer or treatment facilities after their use. The physical responsibility for operating these schemes is delegated to manufacturers of the products who need to set administrative arrangements with retailers at the onset of the programme. The scheme has been mostly used for beverages containers, with a few exceptions for the application to batteries, fluorescent light bulbs, tyres and shopping bags to some extent.

<sup>1</sup> Generally, the products or wastes with the following characteristics can be subject to the extended producer responsibility: the products with a potential to create massive volume of waste (packaging), waste groups requiring special attention due to the potential harmful environmental impacts (battery), or products to be difficult to reuse or recycle without engaging producers (ink cartridge).

- **Advanced disposal and recycling fee<sup>2</sup>** is a tax paid in advance by manufacturers to cover the cost of collection or recycling of a product. Fees may be assessed by weight or per unit of product sold. Although costs for processing waste are covered by producers through the scheme, a complementary system needs to be set up for the physical collection and recycling. This measure has covered product groups with longer life span, such as refrigerators or tyres.

The measures can be implemented on a voluntary basis – often via corporate social responsibility, on a mandatory basis or through the combination of both (such as negotiated agreements between governments and industries). For instance, Xerox is operating a cartridge take-back programme for copying machines. The used cartridge is collected, disassembled, treated and turned into resources for new products.<sup>3</sup>

### Strengths with extended producer responsibility

- Improves resource efficiency by saving virgin material inputs and energy consumption.
- Reduces wastes to be land-filled, incinerated, and final disposal.
- Leads to environmental benefits via reduced pollution from production and waste treatment.
- Spurs innovation for more efficient production and packaging.
- Creates business opportunities for recycling industry.

### Challenges with extended producer responsibility

- **Administrative costs for the operation and monitoring can be high** if a large number of parties, such as consumers, producers, importers, retailers and collectors, are engaged in the process of producing and taking back. A cost-benefits analysis is recommended.
- **The application of the full-scale EPR can be limited in countries that lack of institutional capacity** to operate a supportive scheme, such as waste-sorting system. Governments can start with selected measures, such as introducing a deposit and refund scheme for beverage containers, and expand the scope incrementally.

### Implementing strategies

**Set up a coordinating body:** There needs to be a designated body setting up the framework, managing and monitoring the scheme, which includes the selection of the entitled businesses or product groups and the establishment of the recycling or collection targets.

**Adjust the degree of responsibility according to the market readiness:** The physical and financial responsibilities can be shared by the government if businesses are not ready to take over completely. For instance, municipal authorities can be in charge of setting up a waste-sorting, system such as installing recycling bins to alleviate the burden on businesses.

**Supplement with incentives or disincentives:** Although the primary purpose of the scheme is to transfer the responsibility of waste treatment to the producers, the successful implementing requires cooperation from other actors, such as distributors and consumers. For instance, if consumers keep disposing wastes without proper segregation, the collection will be extremely difficult. Governments can use a mix of instruments, including regulation (ban certain types of waste in landfills) and information dissemination (recycling labels attached to the products).

<sup>2</sup> In some cases, this policy may be changed from producer responsibility to consumer responsibility; the increased costs are transferred to consumers and the tax is displayed as a separate line item on the bill.

<sup>3</sup> Fuji Xerox website "About 'Reuse and Recycling'". Available from [www.fujixerox.com/eng/company/ecology/office/reuse/index.html](http://www.fujixerox.com/eng/company/ecology/office/reuse/index.html) (accessed 1 March 2012).

**Strengthen the capacity of recycling market/industry:** The collection of recyclable waste has no point unless the existing recycling market can handle the collected material. In Germany, the initial target was set too high compared with the capacity to handle them, resulting in the dumping of the excess amount of secondary material into the international market at a low price.<sup>4</sup> The policy measures aimed at spurring innovation on recycling and related technologies can go hand in hand.

## Examples

**Japan:** The Home Appliances Recycling Law requires the manufacturers and importers of air conditioners, televisions, electric refrigerators and electric washing machines to take back the end-of-life equipment and recycle it.

**Australia:** A National Used Tyres Product Stewardship Scheme has been set up to divert end-of-life tyres from landfills.<sup>5</sup>

<sup>4</sup> Organisation for Economic Co-operation and Development, *Extended Producer Responsibility: A Guidance Manual for Governments* (Paris, 2001, page 34).

<sup>5</sup> Commonwealth of Australia, website of Department of Sustainability, Environment, Water, Population and Communities "Product Stewardship for End-of-Life Tyres". Available from [www.environment.gov.au/settlements/waste/tyres/index.html](http://www.environment.gov.au/settlements/waste/tyres/index.html) (accessed 17 November 2011).