

## **Abstract**

Waste management is becoming a hot topic in policy circles. Municipal governments, which are largely responsible for building and maintaining waste disposal networks, are keen to find ways of minimising the cost of disposing of waste and the sheer amount of waste society produces.

Unfortunately, market and corporatist approaches do not take waste management into consideration, rather leaving waste management to local authorities, and without government coercion will usually not concern themselves with environmentally-friendly product design, waste minimisation or the reuse, re-manufacturing or recycling of the product at the end of its life cycle.

Extended Producer Responsibility (EPR) provides a framework for involving the producers of goods in the full life cycle of their products, particularly the end of it. As the name suggests, it is about the extension of responsibility for waste management to the producer, which is in effect an internalisation of the costs of waste management and disposal to the production level.

This thesis undertakes a theoretical analysis of Extended Producer Responsibility and subsequently performs a comparison of two case studies to ascertain the viability of the program in practice. The first case study concerns the Dutch Packaging Covenants of 1991-2005, which utilise a form of EPR called negotiated agreements, while the second case study examines Maine's Product Stewardship Framework, which was the first comprehensive EPR law of its kind.

The thesis finds that the more comprehensively EPR is put into practice, the more effectively it functions. Despite its relative effectiveness, EPR has not been extensively implemented; as a program it has great potential, but is limited by political reluctance to implement large-scale waste management programs and industry opposition to product end-of-life cost internalisation.

## **Executive Summary**

Waste management is increasingly a problem all over the world, as municipal governments become overwhelmed by the sheer quantity of waste and the high cost of its disposal. They are, therefore, eager to find other options, that take the responsibility away from the government and place it elsewhere. If the market and corporations cannot manage it, and if privatising waste management is not an option, what other possibility are there?

The thesis focuses on Extended Producer Responsibility (EPR), which seeks to return the responsibility for waste management to the producer of the goods. This can be seen as a means of internalising the costs and difficulties of waste management and disposal at the level of that producer, rather than governments.

There are a number of ways of doing this. Market-driven programs are one possibility, though they are more theoretical than practical. Voluntary programs are undertaken by the producers on their own, and negotiated programs involve agreements between government and industry. Mandatory programs are unpopular with producers, but have positive outcomes. The thesis looks at these processes in practice, and then seeks to determine the most effective method in keeping with the goals of waste minimisation, more recycling and reuse, and environmental protection.

Two case studies are performed to undertake this analysis, one of the Dutch Packaging Covenants, which utilise negotiated agreements, the other being the Product Stewardship Framework of the state of Maine in the United States, which follows a more mandatory approach. A comparative analysis is then performed to determine which program is better suited to the aforementioned goals. Ultimately, it is decided that a mandatory approach, despite the risk of industry opposition, is the better option, due to its better outcomes.

Plastic waste in particular is discussed in detail, due to the difficulties it poses to traditional waste management and recycling. The thesis decides that EPR can be applied specifically to plastic, as well as other problematic product categories, as a way of increasing its cost and minimising its use.

The greatest shame is that EPR is not implemented more widely. This thesis confirms that it is an excellent method of protecting the environment, without being too economically harmful, and so should be considered by any government, producer or society wishing to reduce waste, increase recycling and protect the environment.

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