

Producers's extending reponsibility of discharging waste. Advantages and disadvantages.

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Abstract: Today, the problem of waste is a top concern in the world in general and in Vietnam in particular. However, how to reduce, recycle and reuse this source of hazardous waste. This is a matter of concern for all businesses, authorities and people in polluted areas. Approximately 4.8 to 12.7 million tonnes of plastics are entering the oceans yearly, of which the vast majority leaks into the Indian Ocean and Pacific where many coastal-lands and countries are located. These leakages are caused by a lack of a sound waste collection and treatment system. Especially low- and middle-income countries often face budget shortfalls for waste management^[2]. Starting from that urgent problem, we conducted research and discussed: "Producers's extending reponsibility of discharging waste. Advantages and disadvantages." with the aim of protecting the environment, contributing to reducing hazardous waste, recycling waste products to save raw material costs, contributing to reducing costs, ... helping to accelerate the transition to an economy that complies with more sustainable standards.

Keywords: EPR, solid wastes and liquid wastes, waste products.

Introduction

Extended Producer Responsibility (EPR) is an environmental policy that requires manufacturers or importers to take responsibility for their products throughout the product lifecycle, from design to logistics and recycling. EPR is considered an important means of addressing waste and environmental pollution, helping to accelerate the transition to an economy that adheres to more sustainable standards.

In some countries all over the world: such as Europe, the United States, and Japan, EPR has become the basic environmental policy in various fields. Many countries are implementing EPR policies effectively, helping to reduce waste and environmental pollution.^[1]

II. Research content

Reasons and purposes of the EPR program
Extended Producer Responsibility (EPR) is an environmental management program that is being widely deployed globally. EPR places responsibility on manufacturers, importers and sellers to collect, treat and recycle used products to minimize their negative impact on the environment. We can also point out some reasons and purposes of the EPR program that were applied in some countries in the world and Viet Nam. *Reduce a large amount of solid waste and others*

One of the main purposes of the EPR program is to reduce the amount of waste generated from used products. Collecting, treating and recycling these products helps reduce the amount of waste sent to landfills and minimizes negative impacts on the environment.

Recycling is the process of converting waste into new, useful products. Waste materials that can be recycled include plastic bottles, paper, cardboard, food and drink cans, trays, tabs, food and beverages cartons, and aluminum foils. Although recycling has been going on for the past few years, recycling efforts need to be increased, considering the amount of waste disposed of every day.

Enhance corporate social responsibility:

The EPR program places responsibility on manufacturers, importers and sellers to collect, process and recycle used products. This creates pressure for businesses to increase social responsibility and offer environmentally friendly products.

Encourage the use of recycled products:

Collecting, processing and recycling used products helps create recycled materials. This helps encourage the use of recycled products and minimizes the amount of resources used to produce new products. We can also find four significant characteristics specify the Vietnamese context:

High-value recyclable packaging is already separated from household waste to a limited extent and transferred to recycling systems. Extraction is often informal and the subsequent value chain is based on a functioning market.

The recycling capacities of Viet Nam are insufficient for the mentioned, locally generated, and high-value recyclables, especially in light of the growing middle class and the expected increase in per capita packaging consumption.

Low-value packaging and non-recyclables (e.g. all kind of flexibles like films, sachets and composites) are mostly disposed of and collected together with other municipal waste. So far, there is no systematic separation and recycling of the low-value recyclables. Depending on the locally prevailing collection and disposal system, all of these end up in landfills, or are littered in the environment with potential and apparent leakage into marine ecosystems. The capacity of suitable disposal options via sanitary landfills is not sufficiently available across the country.

Packaging waste management realities vary significantly across Viet Nam, most notably between urban and rural areas: while in some urban areas highly efficient waste segregation and waste collection is practiced, some rural areas do not even have any form of waste collection leading to practices of illegal dumping and open burning. A transition to a sustainable waste management requires an approach that is flexible enough to account for all differences and directs investments and actions tailored to the need of each region.

Create business opportunities:

The EPR program creates business opportunities for businesses operating in the field of collecting, processing and recycling used products. This helps create a new industry and create job opportunities for workers.

Promoting sustainable development:

The EPR program plays an important role in promoting sustainable development. Reducing waste, recycling and utilizing resources will help reduce the impact of production and consumption on the environment and help protect natural resources for future generations.

In addition, implementing the EPR program can also help enhance the social responsibility of businesses and promote sustainable economic development. By ensuring that products are produced

and consumed in ways that benefit the environment and consumers, the EPR program helps promote sustainable development and contribute to building a better future more for everyone.

Principles of the EPR program

The EPR program has a number of important principles to ensure its effectiveness and equity. Here are some basic principles of the EPR program:

Extended Producer Responsibility (EPR) principle:

According to this principle, producers are responsible for their products until they are recycled or destroyed. safely. This includes the collection, treatment and recycling of these products.

Product Use Fee (PUF):

This is a fee that manufacturers or sellers must pay when selling products to consumers. This fee can be used to support product collection, treatment and recycling.

Principle of Shared Responsibility (SR):

According to this principle, many participating parties will be responsible for the collection, treatment and recycling of products. These parties may include manufacturers, retailers, government organizations and non-governmental organizations.

Life Cycle Approach (LCA):

This principle believes that solving the waste problem needs to be approached from a comprehensive perspective of the product's production cycle. From there, manufacturers can find ways to design products so that parts of the product can be recycled or disassembled for reuse.

Examples of EPR programs

EPR programs have been implemented worldwide. Here are a few typical examples:

Europe: Europe has established an extensive EPR program for products such as lamps, batteries, electronics, home appliances and packaging products. This program requires manufacturers to ensure the collection, recycling and disposal of their products.

-Canada: Canada's EPR program focuses on hazardous waste such as pesticides, herbicides and fluorescent lamps. Manufacturers must contribute to a recycling fund to support the collection and disposal of these products.

Japan: Japan's EPR program focuses on handling electronic products, automobiles, and household products. Manufacturers must ensure the collection, recycling and disposal of their products.

Economic advantages and disadvantages

of the **Extended Producer Responsibility (EPR)** program for plastic waste in India have gained significant attention worldwide as a means to address the **environmental challenges** posed by plastic waste. In the context of India, a country grappling with severe plastic pollution, implementing **EPR programs for plastic waste management** carries both economic advantages and disadvantages. This blog explores these aspects comprehensively. Here is a typical form of lithium-ion battery recycling business models in India.

Challenges in implementing the EPR program

Although the EPR program has many environmental benefits, its implementation still faces many challenges. Here are some key challenges after applying EPR program:

Cost: To implement an EPR program, manufacturers must invest a large amount of money in collecting, recycling and disposing of their products. This can lead to increased product costs.

Management: The management of the EPR program needs to be carried out strictly and effectively. Organizations need to establish clear standards to ensure that products are collected and disposed of properly.

Support capacity: Organizations need to have sufficient capacity to implement the EPR program, including technological, management and financial capabilities.

Collaboration: Implementing an EPR program requires collaboration between manufacturers, governments and consumers. Working together will help increase program efficiency and reduce costs.

Developing collection and recycling systems: One of the major challenges

The most important thing in implementing the EPR program is to build and develop a collection and recycling system large and effective enough to meet the needs of the program. This requires large investments and cooperation between parties to ensure that recycled products are reused to the maximum extent. **Unequal distribution:** Some other issues in implementing EPR programs including the uneven distribution of recycling capacity across regions, participants, and program management policies. Finding solutions to minimize this disagreement will be a major challenge for organizations implementing EPR programs.

Comparison between EPR program and extended producer responsibility program (Product Stewardship)

The Product Stewardship program is similar to the EPR program but has some differences. Product Stewardship focuses on manufacturers and related businesses in managing their products throughout the shipping, use and disposal process. Businesses are responsible for their products and must ensure that they are handled safely and effectively.

Meanwhile, the EPR program focuses on both the product's supply chain and the parties involved in managing and handling the product, not just the manufacturers. The goal of the EPR program is to ensure that products are managed and handled efficiently, saving resources and minimizing environmental impact.

- According a report in Vietnam news on January 22, 2024 Phan Tuan Hung, director of the National Extended Producer Responsibility Council's Office, said if we properly and fully implemented requirements of Extended Producer Responsibility (EPR), it would ensure the closure and circulation of resources between input materials and waste generated during the production process, towards the goal of no emissions^[4].

Application of EPR program in different countries

The EPR program has been deployed and applied in many countries around the world, especially countries with developed economies such as Japan, Korea, Germany and France. In these countries, the EPR program has been widely applied in the management of waste from products such as packaging, batteries, electronic devices, cars, etc.

III. Conclusions

In implementing an EPR program, close collaboration between stakeholders, including manufactures, government agencies, social organizations and consumers, is required. From there, it is hoped that the EPR program will continued to be developed and widely deployed, contributing to minimizing the native impacts of products on the environment and promoting the sustainable development of society^[3].

EPR is an environmental policy approach that holds producers responsible for products's lifecycle.^[4]References

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