

## Policy Theme

**Responsibility in Recycling Policy**

## Target audience

**Stakeholders who involved in policy formulation**

## The problem

**Shared Responsibility in a recycling system can cause partial optimization.**

## Policy options for resolving the problem

**Goal setting; Sharing a policy goal with stakeholders**

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This policy brief



Includes:

- Description of a problem
- Viable policy options for addressing the problem



Not include:

This policy brief does not make recommendations regarding which policy option to choose.

**Author:** [Tomohiro Tasaki](#) (Head of Sustainable Material Cycle Systems Section)

\* The views expressed in this Policy Brief are those of the author(s) and are not necessarily those of the National Institute for Environmental Studies (NIES) nor the Center for Material cycles and Waste management (CMW).

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## **Negative Effects Caused by Shared Responsibility and the Significance of Goal Setting in Recycling Systems**

**Tomohiro Tasaki**

### **1. Introduction—Role-Sharing based on the Extended Producer Responsibility—**

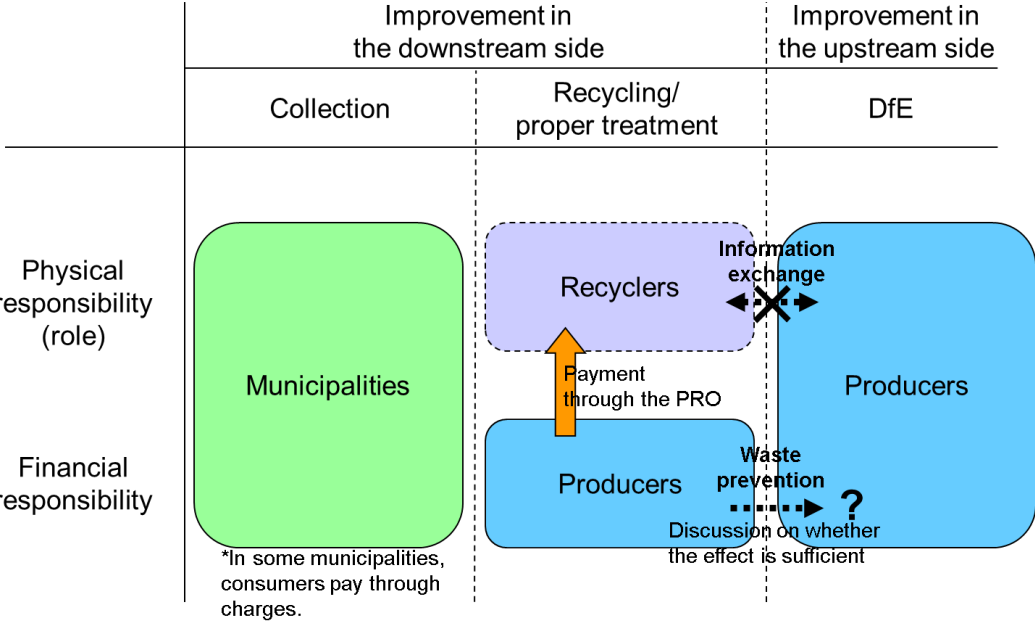
In the debates on the responsibilities of recycling system since 1990, consideration of the extended producer responsibility (hereinafter referred to as “EPR”) is inevitable. According to the EPR Guidance Manual of the OECD (2001, p. 18), EPR is defined as “an environmental policy approach in which a producer’s responsibility, physical and/or financial, for a product is extended to the post-consumer stage of a product’s life cycle.” It has been used as an internationally important concept in waste and recycling policies, and the number of EPR systems in existence worldwide has reached over 350 (OECD, 2014).

However, EPR is understood in various forms by different stakeholders and has been one of the points at issue, with the most conflicting opinions in the discussion on the systems of recycling Acts not only in other countries but also in Japan. For instance, the Liaison Committee of Associations Promoting 3R (2012) held a discussion on EPR in the Containers and Packaging Recycling Act among stakeholders and reported the results of disagreement in the effect of EPR, progress of DfE (design for environment), cost-sharing by business operators, and other matters. In addition, Tasaki et al. (2014) conducted an international questionnaire survey and indicated the difference in perception of EPR among stakeholders (see Tasaki et al. (2013) for the domestic results). The existence of these various debates on responsibility may be an obstacle against further development and the improvement of recycling systems.

This paper indicates not only the situation where the clarity of responsibility-sharing brings unintended negative effects, but also the importance of the formation of common perception in a recycling system, through discussions on shared responsibility and policy experience over a decade in the past in the Containers and Packaging Recycling Act and the Specified Home Appliance Recycling Act (hereinafter referred to as “the Packaging Recycling Act” and “the Large WEEE Recycling Act”).

**2. Shared Responsibility in Recycling Systems and the Policy Experience in Japan**

The EPR Guidance Manual of the OECD (2001, p. 28) indicates that “responsibilities should be well defined and not be diluted by the existence of multiple actors across the product chain” and that the responsibilities should be defined clearly. It intends to prevent failure to implement effective initiatives under the situation where the responsibilities and roles become vague due to the existence of multiple actors. However, that clear responsibility-sharing does not always produce good results should be confirmed through looking back over the past situation of the Packaging Recycling Act and Large WEEE Recycling Act in Japan.



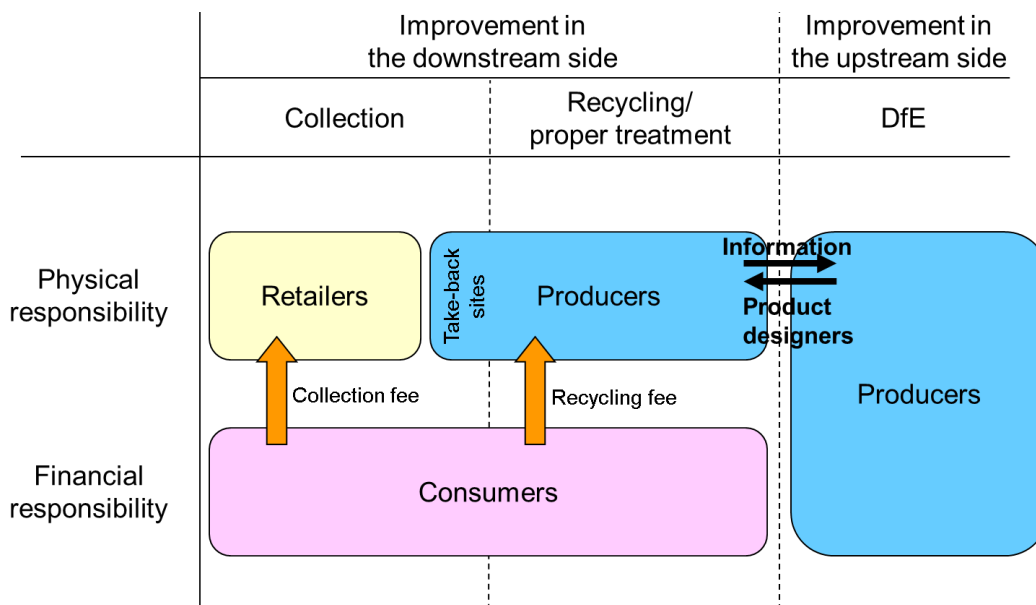
**Figure 1.** Responsibility- and Role-Sharing under the Containers and Packaging Recycling Act (Designated Organization Route)

Firstly, the situation and problems of the Packaging Recycling Act are explained. As described in Figure 1, responsibilities and roles are shared under the Packaging Recycling Act. Three recycling routes are supposed in the Packaging Recycling Act: voluntary collection route, designated organization route, and independent route. As the voluntary collection route supposes the reuse of returnable containers and the independent route has not yet been used, the recycling of containers and packaging is practically carried out by the route of the Japan Containers and Packaging Recycling Association (hereinafter referred to as “JCPRA”); that is, a designated organization. Therefore, Figure 1 specifies the shared responsibilities of the designated organization route. The types of responsibilities assigned to the respective actors by the system are listed horizontally. The contents to be improved by the system; that is, improvements in the promotion of the collection, securing of recycling and proper treatment/disposal, and DfE, are listed vertically. “Physical responsibility” at this point means direct or indirect responsibility for physical operations (collection, disposal, recycling, etc.) of waste products (at the post-consumer stage), and “financial responsibility” means the responsibility in which producers finance all or a part of the costs

related to the operations (collection, disposal, recycling, etc.) of waste products. In the designated organization route, the waste containers and packaging discarded of by consumers are collected by municipalities, and then recycled after being transported by the recyclers designated by the JCPRA based on the bidding results. The recycling costs are paid by the specified business operators who are producers, and the collection costs are expended basically by municipalities (some municipalities charge costs for waste packaging to consumers ).

With regards to the issues of the Packaging Recycling Act, as also raised variously in the review discussion of this year and the discussions before the revision in 2006, the following four points can be indicated as those caused by this responsibility- and role-sharing. Firstly, even if the costs of recyclers are reduced through the municipal efforts on carrying out thorough separate collection and rendering into condition easy to recycle, there are no financial benefits to municipalities. Secondly, the sorting operation is performed by both of municipalities and recyclers, and thus there is room for integration and optimization. Thirdly, municipalities cannot select recyclers by themselves in the designate organization route, and thus they cannot avoid carrying out the separation at the level applicable to all the recycling methods. Fourthly, the information communication between recyclers and producers is not carried out like the below-mentioned Large WEEE Recycling Act, and thus DfE improvement by artery-vein collaboration has not been led. The last point specifically means that there is no mechanism internally for the producers to consider the shipping and sales of difficult-to-recycle products in the recycling processes and the pretreatment processes. In addition, with regards to the first point, the rationalized contribution system was introduced by the revision in 2006 and certain improvements have been achieved. However, the amount of cost reduction currently decreases and the contribution amount to be paid to municipalities is declining. Therefore, the discussions are held from the perspective of the continuation of the system. These four points can be summarized as the problems that are not able to contribute to overall goal achievement, although responsibility-sharing has been clearly set for each point and the respective actors have conducted partial optimization.

The responsibilities and roles are shared under the Large WEEE Recycling Act as described in Figure 2. According to the responsibility-sharing in the Large WEEE Recycling Act, consumers pay the collection and recycling costs, retailers conduct collection and transport the waste large WEEE (TV, refrigerator, washing machines, and air conditioner) to the designated take-back sites operated by producers, and then manufacturers and importers, who are producers, (hereinafter referred to as “manufacturers, etc.”) carry out the second transportation to the recycling plants and recycling. With regards to the issues of the Large WEEE Recycling Act, various points were indicated in the review discussions at the council of the Ministry of Economy, Trade and Industry and the Ministry of the Environment in this year and 2008. The author has been also deeply involved in the discussions of this



**Figure 2.** Responsibility- and Role-Sharing under the Home Appliance Recycling Act

year as a member of the Council. One of the important points at issue is the existence of the so-called “invisible flow” and its adjustment. Generation of the invisible flow largely depends on the system design where (1) the recycling fees and other matters are paid later; in other words, consumers are required to be paid when discarding of their waste products, and (2) retailer’s take-back obligation are limited to the cases of product replacement and when they are asked to take back the products that they sold in the past. The waste large WEEE that retailers are not obliged to take back (hereinafter referred to as “products without obligation”) are handled under the Waste Disposal Act, outside the scope of the Large WEEE Recycling Act, and are collected and recycled as municipal waste under the responsibility of municipalities. However, as there is a background that the Large WEEE Recycling Act was originally established for the reason of the difficulty of the disposal for municipalities, not many municipalities have actively established collection systems. As a result, business entities who collect unwanted items in the city collect the products without obligation and transfer them into the routes other than manufacturers, among which there is the situation of implementing inappropriate treatment such as the emission of CFCs (chlorofluorocarbons). Furthermore, an increase in the price of resources worsens the problem and causes the situation that easily leads to inappropriate disposal for the purpose of obtaining valuables such as aluminum and copper. On the other hand, manufacturers, etc. (producers) are obliged to recycle the large WEEE collected at the designated take-back sites only, but and no obligatory role related to the collection of the products without obligation. Although producers are expected to play the role of information dissemination to and awareness raising of the consumers in relation to recycling, they overlook giving the consumers information on how to discharge the used home appliances, while they perform the provision of the information related to recycling and other matters, which is within the scope of their obligation. From the consumers’ perspective, it is difficult to understand the system, as the information on the discharge and recycling of the large WEEE is notified differently from different actors, including the producers, retailers, and municipalities. In fact, in the “Report on the Evaluation

and Review of the Process in the Implementation of the Home Appliance Recycling System,” which was submitted by the Joint Council this October, an issue of “the home appliance recycling system from the consumer’s perspective” was presented. The Council also reached the recognition that the above-mentioned situation is a problem. In this manner, in the case of the Large WEEE Recycling Act as well, as each actor performs partial optimization, parts of the EPR systems do not affect in the direction in which the system functions as a whole.

Thomas Lindqvist, an advocate of EPR, mentioned, “I suddenly realized that many people who speak of responsibilities, especially those who do critically, criticize from the moral point of view that giving responsibilities only to a member of society is not good because it leads to the situation where other members have no responsibilities” (Tojo, 2006). Although clarification of responsibilities is important, one specific actor alone cannot always achieve an objective effectively. In this meaning, the above-mentioned criticism is considered to have a valid point.

### **3. To Avoid Partial Optimization of the Recycling System**

How should the partial optimization be avoided? The first requirement is to share the overall direction and goals with all the actors. With regard to the Large WEEE Recycling Act, the specific actions for “the goal setting for collection rate to promote the collection with the whole society” are presented in the “Report on the Evaluation and Review of the Process in the Implementation of the Home Appliance Recycling System,” which was submitted by the Joint Council this October (the author pointed out the same as well). It is considered as a directive goal setting to promote the initiatives of each actor or indicate the necessity and direction of an EPR system. Setting of target values is the presentation of a very clear direction, as well as an approach to easily request each actor for their improvement when the actions are not advanced. In the Packaging Recycling Act, on the contrary, although there are planned values such as the amount of collection, the goals in this meaning have yet to be established and this remains as a future issue.

In addition, for the actors who support the actors in charge of specific initiatives such as collection and recycling, it will be expected to make such the support easier and create a mechanism to add such an incentive. In the Packaging Recycling Act, the rationalized contribution system corresponds to such the system; however, likewise for the respective issues pointed out in the above section 2, the system to add economic incentives should be considered. Even if they are not economic incentives, giving incentives in a soft form such as an award system and attempting to coordinate among actors in a form like an agreement should be brought into view. When adding economic incentives, a source of funds will be required. In the case of the Large WEEE Recycling Act, policy options can be largely expanded by applying a so-called advance fee system. In the next review of the Large WEEE Recycling Act, this point will be one of the major points at issue.

#### 4. Conclusions

EPR is a concept of responsibility based on an idea that producers, who are capable actors, should bear a larger role. When developing the debates on the responsibility in Japan, it appears that responsibilities tend to be moral and obligatory. Then, the involvement of those other than the responsible actors in the initiatives (in an EPR system) cannot be followed. Given such the circumstances, clearly shared responsibility is very likely to cause negative effects. Therefore, we should aim at the further improvement of recycling systems, while understanding the existence of these negative effects and making sure of what is the optimal direction for the society.

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(Note: Currently, its full report (2015) is available from [http://www-cycle.nies.go.jp/eng/report/epr\\_eng.html](http://www-cycle.nies.go.jp/eng/report/epr_eng.html))
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