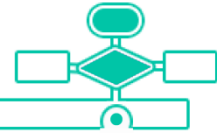


## STEP 3

### EPP Funding and Redeeming Systems



Funding Scheme



Operational Procedure and Redeeming Systems

## STEP 3 EPP FUNDING AND REDEEMING SYSTEMS

### Output

- ⇒ Selection of EPP funding schemes, the central funding or supplier-joint-program
- ⇒ Selection of redeeming schemes, hard copy or online-IT system for registration, point collection and redeeming procedure.

### Resources

The important information that is required in this step are EPP applied sector, current IT-infrastructure, cooperation level of stakeholders and available budget.

### Activities

Step 3 consists of three main activities:

- ⇒ To determine the financial support which may be provided from government or from the business co-operate funding
- ⇒ To determine the potential system such as the IT-infrastructure, the budget, the scale of implementation and other factors that related with redeeming system
- ⇒ Create the appropriate redeeming system.

### EPP Principles

The EPP principles to be considered:

- **Applicability**
  - ⇒ The funding and redeeming schemes should be practical and flexible
- **Validity**
  - ⇒ The funding and redeeming schemes should be able to be tracked and monitored
- **Communicability**
  - ⇒ The funding and redeeming should be easily understandable by avoiding technical words and selecting appropriate methods.

The prior steps have mostly explained about the eco-point certification system, which is mainly focusing on supply side. In this step, EPP redeeming procedure and funding will focus on the operational aspect of the demand side or consumers. This step proposes possible ways of redeeming, the mechanism of eco-point distribution and redeeming system. Because EPP is a kind of incentive program which will require initial funding possibly from the government, this section will explain possible funding options from relevant stakeholders.

### 3.1. Funding Schemes

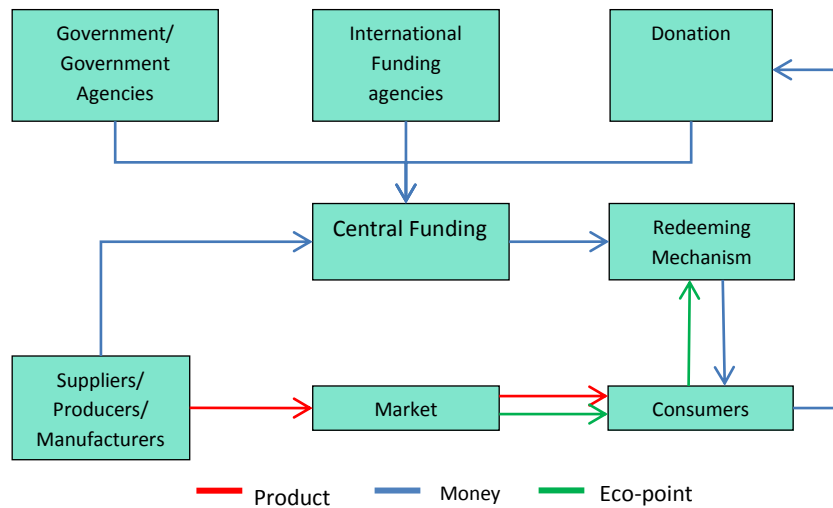
Since EPP is a kind of voluntary program that requires willingly participation from both business owners and consumers, the initial step to kick off the program will obviously demand financial contribution primarily from the government. The level of EPP implementation either at local or at national level needs a careful estimation of budget requirement. According to existing EPP found in Japan and Korea, the main financial contributors were from governmental agencies. For example of Japan and Korea is in Box 2.

Therefore, this step will propose only the general funding mechanisms and recommend possible EPP partners that may involve in the funding system. The two pattern of funding systems recommended are 1) central funding, 2) supplier-joint-program funding.

#### 3.1.1 The central funding system

In this system, the EPP office plays a key role in establishing the central fund which may receive financial supports from national government, local government, business owners, any other donators or even international funding agencies that are related to carbon reduction or global warming mitigation. This central fund will be used for program operating expenses, redeeming and EPP related expenses.

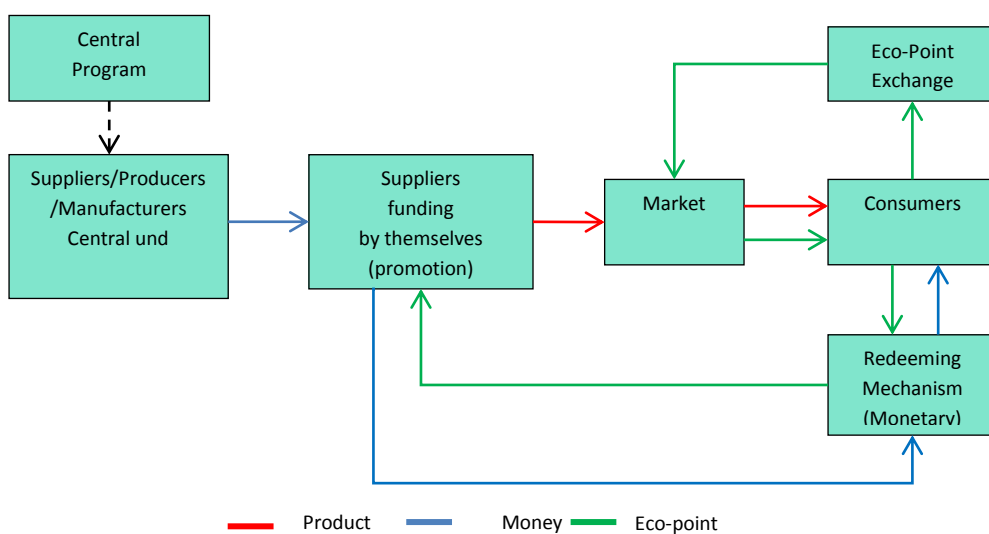
As this system is a central command, it can be applied either to a specific sector or all sectors including households, products, transports and accommodation services. The schematic diagram of this system is shown in following figure.



**Figure 3.1:** The central funding system

### 3.1.2 The supplier-joint-program funding system

This funding for this system will be wholly from business owners but it needs to establish community of business owner or suppliers who would provide their own eco-point promotional schemes for their consumers. The eco-product manufacturers in the market will provide the eco-point. Consumer can use that point in exchange of other eco-products or reduce the price of eco-products sold in the market. Other available option for consumers is to use the point to redeem as cashback directly from the manufacturers. This system has no interfere from central EPP office. The EPP Office has a role at the beginning of the program by setting up the co-operation of business owners or suppliers and setting up common rules. Then the EPP office will let these suppliers operate the eco-point mechanism. The schematic diagram of this system is shown in following figure.



**Figure 3.2:** The supplier-joint-program funding system

### Box (3.1): Examples of Funding Schemes

#### Japan Eco-point Program

Japan's eco-point program for purchasing energy-efficient appliances. The Japanese government provides full financial supports through the eco-point office. The eco-point system for home-appliance was jointly implemented by the Ministry of Land, Infrastructure, Transport and Tourism; the Ministry of Economy, Trade and Industry; and the Ministry of Environment. The first phase of the program was intended to be completed in 2009. With a huge success of the program, it had to be extended to 31 March 2011 by using a total budget of about 693 billion yen. Eco-points had been issued in about 45 million cases totaling about 640 billion yen. The donation for environmental conservation reached about 1.05 billion yen, and donation to support areas affected by the earthquake reached about 100 million yen.

| Category                                | Main Benefits   | Amount          | Provider          |
|---|---|-----------------|-------------------|
| The eco-point system for home appliance | Point rewards for purchasing less energy consumption home appliance | 693 billion yen | Government (100%) |

(Source: Ministry of the Environment (MOE), Ministry of Economy, Trade and Industry (METI) & Ministry of Internal Affairs and Communications (MIC) 2011)

#### Korea Green Credit Card

Green Card Korean program. The financial support is fully provided by government in case of household energy but in other sectors the fund will be a combination of government, manufacturer, bank, or voluntary basis (table 1).

| Category  | Main Benefits   | Amount                           | Provider                               |
|---|---|----------------------------------|--|
| Carbon Point                                      | Point rewards for household energy savings  | USD 70-100/yr                    | Government (MoE 50% and Local Gvt 50%) |
| Green Consumption                                 | Points are rewarded for green consumption   | 3-7% of price                    | Government 2%<br>Manufacture (1-5%)    |
| Cultural Facilities                               | Free or discounted entry to facilities run by local government or public agencies     | 18 agencies<br>381 facilities    | Government                             |
| Public transportation use and credit card service | - points are rewarded to public transport use<br>-up to 0.8% of card bill is rewarded | points are rewarded for each use | Card Issuer (Bank)                     |
| Partner Companies                                 | points are rewarded for products bought at eco-money partner stores                   | 1-5% of paid amount              | 20 partners                            |

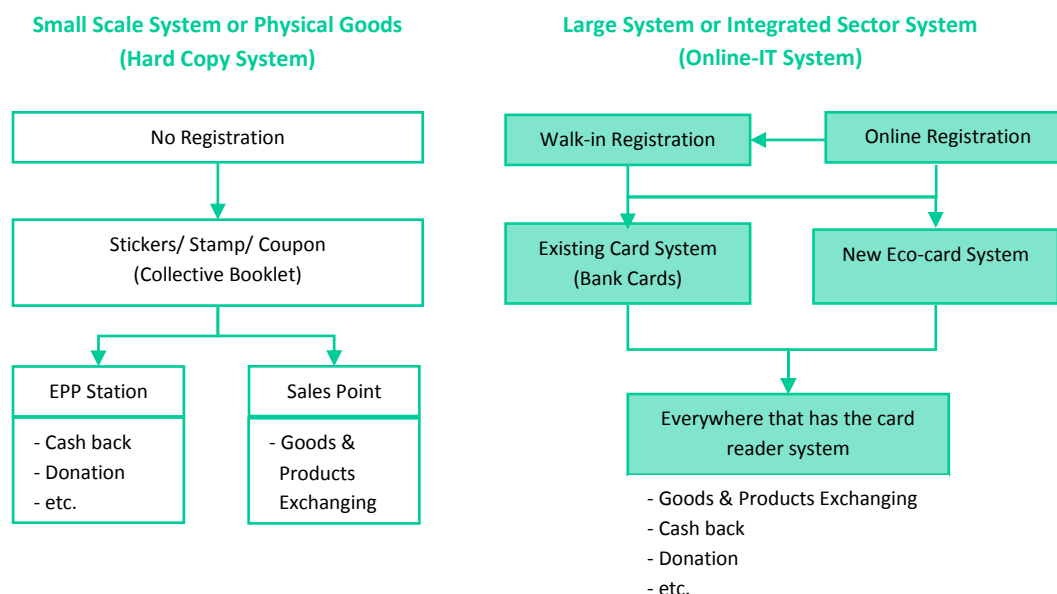
(Source: Meyer & Lee 2013)

The Korea eco-point programs are originated by the central government so the main financial supporter is the central government. However, the government may join with other voluntary financial supporters depending on product sector in order to stimulate the program. In small system, individual distributors, retailer or financial institute may set the EPP by their own funding. This type of funding is similar to the rewards to promote product in the general marketing e.g. the eco-plum, credit card green point rewards system of Well Fargo, etc.

## 3.2 Operational Procedure and Redeeming Systems

The eco-point is a kind of cash based incentive program which can be exchanged for eco-goods or services, cash-back, donation and etc. Three main parts that will be the center of discussion of this section are about registration process, operational procedure and redeeming system. On consumers' side, it will be about how consumers can apply for EPP, how consumers can collect eco-point and how consumers can use the point? On the other hands, the EPP office will design operational system and redeeming system. The general operational and redeeming procedure can be broadly classified into three systems, which are hardcopy, online and mixed system (All digital rewards 2014). **Figure 3.3** illustrates procedures of the two main rewarding procedures, hardcopy and online system.

- **The hardcopy system** will be a paper-based system. This mechanism may not require a complex IT system and investment on IT hardware. Thus the operating cost might be lower than the other systems. Nevertheless, it is only suitable for physical goods or a small scale of EPP program. The difficulty with this system is the eco-point distribution monitoring. It requires a good control of the number of hardcopy of eco-point awarding and its numbers should not exceed the actual number of product sales.
- **The online system** will be a paperless system. All qualified product data, information of registered consumers and eco-points must be put into an online database system which will be connected to all the sale points. Consumers will obtain eco-points promptly upon their purchases and the eco-points will be recorded. This system is quite similar to the e-commerce system; however, it requires quite an expensive investment in IT systems and hardware.



**Figure 3.3:** Types of operational procedure and redeeming systems

- **The mixed system** is at some stages using hardcopy system but other stages use online system. This system can be benefit when considering the available IT

system and hardware. However, in this mixed system may have transitional process between hardcopy and online, either online to hardcopy or hardcopy to online. This system is more flexible than the above mentioned system, and it can deal with a large consumer's database and can cope with eco-points collection across different goods and services sectors. However, it might need high investment upfront (both cost and time) for establishing the system, but it can keep a good track of eco-point redeeming and related activities.

Therefore, to develop the operational procedure and redeeming system should comprise of three main processes, i.e. 1) registration process, 2) eco-points collection process and 3) eco-points redeeming process. The latter parts of this section will explain each part in detail.

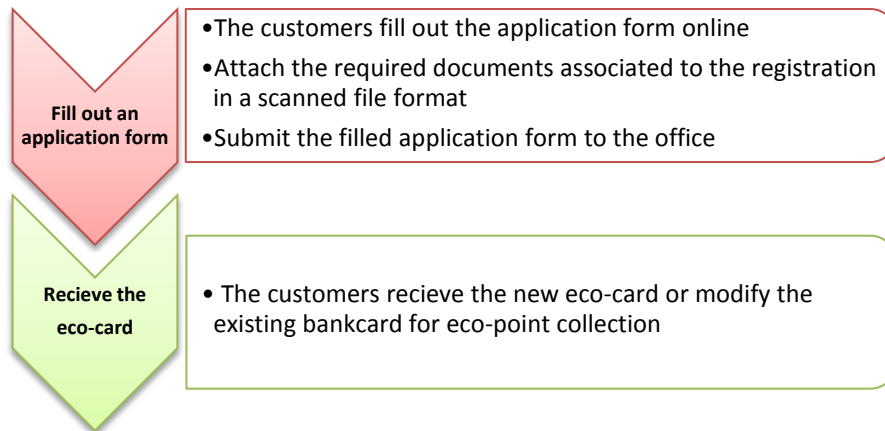
### 3.2.1 Registration Process

This process uses for creating the consumer database that will be linked with the eco-points collection system in order to create the management of points system. The consumers, who are willingness to join the EPP, should register to the consumer database. However, the consumers' registration may be required or not depending on the scale of EPP and the number of goods and services sectors that are implemented such as:

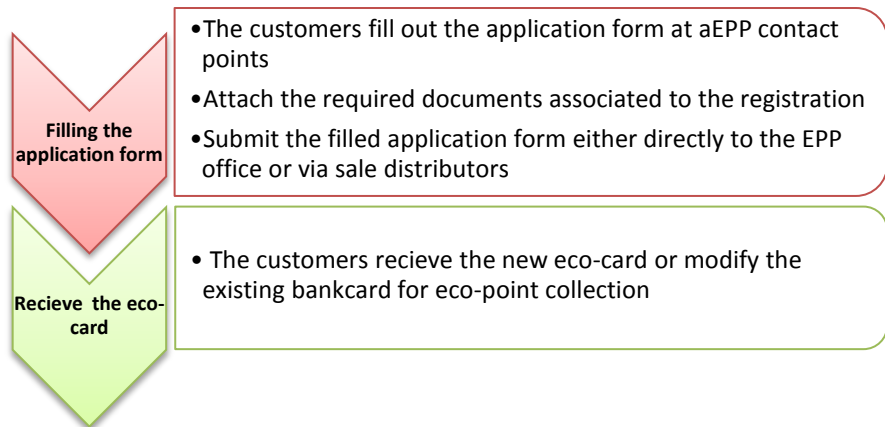
- In the **small scale EPP**, which has a few goods or services are participated in the EPP. The system may be the **hardcopy** such as giving a coupon, stamp or sticker for eco-points. The consumers can use those kinds of hardcopy eco-points to exchange for other eco-goods or services, cash discount or redeem points into the cash. In this mentioned system, the registration process may not be required.
- In the **large scale EPP**, which has many goods or services participated in the EPP, the registration system should be designed to support large amount of information. Therefore, **the online or mixed system** should be used in this situation and to support consumers to register conveniently either online or walk-in paper work.

The procedure of registration could be designed in a form of a two-step process. Firstly, the consumers have to fill out an application form either hardcopy or electronic forms. The key components of the application form are consumer personal information, chosen sectors to participate in the EPP (if there are more than one sector) and other relevant documents that might be required as the evidence for the registration (if necessary). Second step will be the responsibility of EPP office to record consumers' information and provide eco-card or point-collection tools for eco-point collection. **Figure 3.4** presents the two-step procedure and details for both online and walk-in registration.

## Online Registration



## Walk-In Registration



**Figure 3.4:** Two-step procedure of the online and walk-in registration

After the consumers apply for the EPP and receive the eco-points card, the consumers may use the card to purchase eco- or green-goods or services from various sectors including household, goods and services, transportation and accommodation service. The points from purchasing the eco-goods and services will be recorded in the card, and then the consumers can exchange the points for an incentive. The procedure of collecting and redeeming the points for the incentives is presented in the next topic.

### 3.2.2 Point Collection Process

This system uses for collecting the amount of eco-points for each consumer upon their purchases of eco-products. This system should be designed to carefully link with the registered consumer database. The eco-points can be earned in form of stickers, stamps, coupons or automatically record in the any kind of plastic card e.g. new eco-card or credit-card etc. This guideline propose three ways of collecting eco-points namely hardcopy, online and mixed system. First, a **hardcopy** system, consumers will have a responsibility to collect

stickers, stamps or coupons and attached them in the EPP promotional booklets. In the case of affixing eco-point stickers or stamps on products, consumers must be informed to peel and attach them on EPP promotional booklet.

For the **online or mixed system** can probably be a new eco-card system set up especially for EPP or adapting the existing credit cards to be used with EPP. The existing bankcard system that consumers are currently using could be used as one of the eco-point collection tools. However, it needs to be carefully cooperated with the banks concerning any operational fees that may incur. Adapting the existing bankcard system to this EPP program might add more operational steps of recording eco-points into the cards. In the mixed system, the transferred mechanism for switching amount of eco-points in stickers, stamps or coupon to the eco-points in eco-card form should be adding.

Referring to the considered sectors (including household, goods and services, transportation, and accommodation service), the eco-point could be earned directly into stamps, stickers or coupon or the eco-card could be earned from purchasing '*Goods and Services*,' '*Transportation*' and '*Accommodation Service*'.

The points that are earned from purchasing products from those three sectors can be collected either in hardcopy or online in the eco-card. However, the eco-point collecting system might be different for household sector. The details of each sector express as following:

### **3.2.2.1 Household Sector**

EPP application in household sector will need previous records of electricity, water or gas consumption from the participating household.

- **The hardcopy system:** To collect the past records of utility usage, it is suggested that house owners are responsible for collecting it from the utility service providers and submit it to EPP office for inspection.
- **The online or mixed system:** Collecting the past record of this two system is quite convenient than the hardcopy-only system. The IT system should be accessible for consumers and EPP office. EPP administrative office will then assess how much the consumers can reduce the use of utility services.

This consumption assessment will be a separated set of forms from the EPP application form. The consumption assessment forms will probably require some necessary information, for instance, address and data of energy consumption in the past. The incentives will be provided to consumers from saving rate either by hardcopy or online system.



### 3.2.2.2 Other Sectors (Goods and Services, Transportation, and Accommodation Services)

The tourist accommodation service is included in this topic since it could be counted as services sector, as well as transportation. Transport sector can probably be categorized into various types depending on the scope of the program, such as public transportation, green public transportation, and green private transportation. The purpose of this EPP would support public transportation for the initial implementation of EPP. The procedure for this sector is considered differently from household sector. The eco-point collection system will be hardcopy, online or mixed system.

- **The hardcopy system:** The eco-point can be provided in any form of hardcopy such as sticker, stamp or coupon. The consumer will receive the hardcopy version of eco-point after using tourist accommodation services or public transport services.
- **The online and mixed system:** In the online or mixed system, the database or card system will be required which may be in form of newly point-collection card or integrated with existing consumers' credit card. For the former one, EPP office should create and set a new system for recording the information of registered consumers and consumers' eco-points. While for the latter one, EPP office should design the database system and link them with the IT system of financial institution.

### 3.2.3 Redeeming Process

The ultimate aim of EPP is shifting the demand towards eco-products and services by using incentive mechanisms. The eco-points should be used as discounting or exchanging the eco-products and services in market, simultaneously and continuously. However, the eco-points can be used for redeeming a cash-back or a donation for carbon reduction funds, EPP fund, public health and safety, environmental funds, etc.

The EPP office should also design the redeeming system in the same way as the operational procedure, i.e. hardcopy, online or mixed system. For example:

- **The hardcopy system:** the redeeming system should provide places for consumers to redeem points. The customers should also be informed to exchange the stickers, stamps or coupons at the redeeming point. For donation, the EPP office may cooperate with the public agencies to set up the donation box at these redeeming spots or at sale points.

**The online and mixed system:** the EPP office should create an IT system and a web engine which are linked with registered-consumer database to receive consumers' data and their request for redeeming points.