The Ministry of Environment introduced the Green Card System with a goal of early settlement of the green life culture in Korea. The Green Card System is a green life infra policy to provide economic incentives to the people who practice green lifestyle, including energy saving, green product purchases, and use of public transportation, by making use of a point system with credit cards. By May 2012, 20 months after the initiation of the system on July 22, 2011, 2.6 million members joined the system and more than 10% of the economically active population (24.66 million people as of February 2012) is participating in the green life program. It is expected that the spread of green lifestyle and green consumption through the use of the Green Card System will enable substantial reduction in greenhouse gas emissions, leading to production and sales of eco-friendly goods, thus establishing a virtuous cycle of green value chain.
I. Background

The emission of greenhouse gases in Korea steadily increased from 296.4 million tCO\(_2\)eq in 1990 to 607.6 million tCO\(_2\)eq in 2009.

- The Korean government set the national goal of reducing 30% compared to 2020 BAU and responded by establishing a reduction policy by sector, including the greenhouse gas and energy goal management in industrial sector, the green car development and supply in the transportation sector, and the use of highly efficient products in the non-industrial sector.

In particular, spread of green life culture is essential to reduce greenhouse gases in the non-industrial sector.

- an area where immediate effects can be seen without large scale investment or technology development.

President Lee Myeong-bak emphasized on a radio speech in 2009 stating that the more than one third of greenhouse gases emitted can be reduced by energy saving and efficient use, and the saving is the fifth energy.

According to the survey results on the national consciousness performed in 2012, the practice of green life and green consumption is insufficient compared to the high awareness on green growth and climate changes.

- For example, the awareness of the green growth policy is very high with 90.4% and 71.6% of citizens appreciating the necessity of taxation by the discharge amount of greenhouse gases, but the rates to buy low carbon products or use public transportation to commute were very low, with 31.1% and 27.0%, respectively.

- In other words, the number of citizens to acknowledge the importance of green life has greatly increased, but the practice rate is low because they think it is cumbersome and troublesome. Therefore, an easy and convenient system with economic compensation is required to promote the green life.

- In this background, the Ministry of Environment introduced the Green Card System with a goal of early settlement of the green life culture.

Green Card System is a green life infra policy to provide economic incentives to the people who practice green live, including energy saving, green product purchases, and use of public transportation, by making use of a point system with credit cards.

II. Related regulation in domestic and foreign countries

1. Green consumption incentive systems in foreign countries

With the increased interest on green life and green consumption, each country is implementing various policies to lead and promote green consumption.

- The Japanese government has implemented eco point system (http://eco-points.jp) in an effort to prepare measures for climate changes and to revitalize the economy. It is divided into eco point system for energy-efficient goods and for housing.

- Eco point system for energy-efficient goods is a program to give a portion of the purchase price as a credit when one of the high efficiency home appliances, including refrigerators, air conditioners, and TVs were purchased.

- Eco point system for housing is an incentive program to issue certain points to a household if new eco housing was built or an existing house was eco remodeled to meet the energy saving standard.

- Entire cost for the eco point system is appropriated from the tax to provide economic incentive, and the accumulated eco points can be used to purchase a gift card, an environment friendly product or make donation.

- Based on the results of performance analysis for the eco point system for energy-efficient goods, there was an economic ripple effect of 5 trillion Yen and creation of 320 thousand employees after implementation of the system, which is the value exceeding 7 times the cost of the system.

Eco action point system (http://eco-ap.jp) is also an economic incentive program to give eco action points when a certain criteria or condition is met after conducting an environment protection activity set by the Japanese Ministry of the Environment.

- Businesses participating in the eco action point system can attach logo marks and sell their products and services approved by the Japanese Ministry of the Environment.

- Consumers can accrue points through the internet or by cell phone after purchasing products with eco action point marks.

The difference between the two systems is that the eco point system is initiated by the government, while the eco action point system is an independent system by a private businesses.
In addition, other countries such as United States, United Kingdom, Italy, and Canada are implementing tax assistance and incentive systems by the government to encourage the purchase of energy saving products or activities of efficient energy consumption.

### 2. Green consumption incentive systems in Korea

There are representative systems to provide consumers with incentives for their ‘green’ consumption. These promotion policies are the “carbon point system” and the “carbon cashbag system.”

The carbon point system has been implemented by the Ministry of Environment since July 2009, which issues carbon points according to the amount of saved energy by the participants, including households or commercial buildings, and provides incentives corresponding to the points.

- The amount of saved electricity, water, city gas, and district heating, which are targets of the carbon point system, is calculated as the amount of reduced carbon dioxide, and one point is provided per 10g of carbon dioxide reduction.
- All 232 municipalities in the nation have been participating in the carbon point system since March 2011 and incentives are provided in the form of cash, gift cards, standard plastic garbage bags, and apartment maintenance fees.
- After its implementation since July 2009, 21 million households have participated in the nation, and a total amount of incentives issued was 1.7 billion KRW in 2010.

Carbon cashbag is a system implemented from 2009 by the Ministry of Knowledge Economy and the Korea Energy Management Corporation, which gives carbon cash back points when a consumer purchases energy efficient products.

- This program targets for OK Cashbag Card or Carbon Cashbag Card holders, and supplied points can be used as cash at a member store or cultural welfare facilities and be used for public transportation fee.
- Since its first operation in 2009, 1.35 million people have participated as of July 2011 and a total of 2.58 million points have been accumulated.

The Green Card System has a similarity with existing other systems in Korea and other countries in the aspect that it promotes the purchase of environment friendly products and leads the practice of green life through economic incentives. In particular, the carbon point system enforced by the Ministry of Environment provides benefits as a part of the Green Card System.

- However, the Green Card System is different from the green life promotion systems as they were combined with credit cards.
- The Korean government applied credit cards in the green life incentives with the following reasons: (1) it is convenient because a majority of people have credit cards, (2) no additional investment is necessary because the computer system is already developed, (3) it has high applicability since incentive (point) market is prepared.

In addition, it has unique characteristics different from other credit cards as the points and benefits provided to the consumers are specialized for ‘green life’ and ‘green consumption.’

- More detail information on the Green Card System will be presented in the following sections.

### III. Green Card System

#### 1. Outline of Green Card System

Green Card System has been taking effect from July 22, 2011 with the purpose of leading the national green life through economic incentive for green live. All citizens can participate in the reduction of greenhouse gases while enjoying various benefits with the Green Cards.

The Green Card is issued in the form of a credit card, a check card or a membership card and can be obtained by visiting partner banks (Woori Bank, Hana SK Bank, National Agricultural Cooperative, Industrial Bank of Korea, and Post Office) or through exclusive web page (www.greencard.or.kr).

Benefits of the Green Card System are categorized in four sectors including carbon point system which is an energy saving program at home, green consumption point by purchase of green products, public services, and other services same as typical financial cards.

- We will review each service in more detail in the following sections.

#### 2. Benefits of Green Card System

First of all, “Carbon Point System” is a green gas reduction program by the Ministry of Environment and local municipalities which give incentives to the households which saved the amount of electricity, water, and gas at home.

- As previously mentioned, the Carbon Point System is a government policy introduced to reduce greenhouse gas even before the enforcement of Green Card System, and it is being implemented...
in connection with Green Card System.

Pilot operation of the Carbon Point System took place on limited location in the second half of 2008 and extended to the entire municipality from July 2009. As of May 2012, approximately 2.61 million households are participating. Each household can accumulate up to 70,000 points a year based on the reduction achievement if the electricity, water, and gas usage are reduced more than 5-10% compared to the consumed amount of past 2 years. <Refer to Table 1>.

Incentives are issued by the municipality in various forms, including cash, energy efficient products (LED, multi tab, etc.), gift cards, garbage bags, and points, which are issued to Green Card holders. Any one can easily join the membership for the Carbon Point System by visiting the municipality within the jurisdiction (City, Gu, Gun), or through the internet home page (www.cpoint.or.kr).

For the enforcement of the Carbon Point System, the government developed an information system to gather energy usage of a household and to maintain membership. In 2012, the budget of 9.2 billion KRW was secured to provide incentives to the carbon point members.

Secondly, “Green Consumption” section is a service to obtain eco money points equivalent to 1-5% of the product price from the manufacturer or distributor when the consumer purchased green product with a Green Card.

Green products are products partnered with Green Card which obtain Eco Labelling or Carbon Footprint Labelling, which includes various products from hybrid automobiles and bikes to drinks and snacks.

The Eco Labelling program was implemented since 1992 and currently 7,593 products are certified, and the Carbon Footprint Labeling program started in 2009 and 502 products have been certified at this time.

Thirdly, public sector service provides benefits to the Green Card holders with discounts or free services to the cultural, tour, and sports facilities operated by the municipalities or public organizations.

- Citizens with Green Card can have free admission to the National Natural Recreation Forests or discounts to the public facilities such as Seoul Tower, Han River cruise ship, and Cheju Seongsan Ilchulbong.
- Therefore, it can improve the satisfaction of the Green Card holders, and the municipalities can expect revitalization of the local economy through advertisement of tourist attractions and increased visitors as well.

To provide the above services, government is endeavoring to finalize the participants to the Green Card and services by discussions with municipalities and public organizations, and to train staffs related to the facilities. Facilities currently provide public services are shown in <Table 3> and the number of participants is steadily increasing.

Table 1 : Criteria for Carbon Point System Incentive

<table>
<thead>
<tr>
<th>Item</th>
<th>Annual greenhouse Gas Reduction Rate</th>
<th>Participating businesses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>below 5-10%</td>
<td>greater than 10%</td>
</tr>
<tr>
<td>Water</td>
<td>5,000 KRW</td>
<td>10,000 KRW</td>
</tr>
<tr>
<td>Gas</td>
<td>10,000 KRW</td>
<td>20,000 KRW</td>
</tr>
</tbody>
</table>

Table 2 : Businesses participating in the Green Card related to green consumption

<table>
<thead>
<tr>
<th>Item</th>
<th>Participating businesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution (8)</td>
<td>E-Mart, Lotte Mart, Homeplus, Lotte department store, Galleria department store, Chorokmaeul, ORGA whole food, Mugonghae,</td>
</tr>
<tr>
<td>Service (3)</td>
<td>Hollys coffee, Angelinus, Samyukchonsa</td>
</tr>
</tbody>
</table>
Table 3: Facilities and benefits for public sector services

<table>
<thead>
<tr>
<th>Item</th>
<th>Major Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>National forests</td>
<td>50% discount for 32 camping sites and 10% discount for 40 parking lots</td>
</tr>
<tr>
<td>National recreation forests</td>
<td>Free entrance to 36 national recreation forests</td>
</tr>
<tr>
<td>Seoul City</td>
<td>10-30% discount for entrance of culture-related facilities, 5-30% discount for 23 local districts’ culture-related facilities</td>
</tr>
<tr>
<td>Busan City</td>
<td>30% discount for Monday’s movies</td>
</tr>
<tr>
<td>Daejeon City</td>
<td>20% discount for Daejeon O World</td>
</tr>
<tr>
<td>Gwangju City</td>
<td>20% discount for the plays of municipal performing arts company, 50% discount for the Uchi Park, 20% discount for the municipal museum, 40% for the municipal traditional culture museum, 20% for Dekivill, KRW500 discount for G-Cinema</td>
</tr>
<tr>
<td>Gyeonggi province</td>
<td>20% discount for plays and exhibitions at the Art Center, Free entrance to the Gyeonggi Art Center and the Museum, 10% discount for facility use at the Jangahn citizen’s center</td>
</tr>
<tr>
<td>[Bucheon] Free entrance to the Bucheon Botanical Garden and Bucheon Eco Museum</td>
<td></td>
</tr>
<tr>
<td>Gangwon province</td>
<td>[Gangneung] 10% discount for the Chajoon Municipal Museum, 10% discount for the Alpensia Resort Ocean 700 and Alpine coaster</td>
</tr>
<tr>
<td>South Chungcheong</td>
<td>[Boryeong] Free entrance to Mt. Seongju’s recreation forest and coal museum, Free entrance to the Chajoon Municipal Museum and the Chajoon Botanical Garden</td>
</tr>
<tr>
<td>[Secheon] KRW500 discount for the bird ecosystem museum</td>
<td></td>
</tr>
<tr>
<td>South Gyeongsang</td>
<td>[Sinyang] 10% discount for the Clayarch Gimhae Museum, Free entrance to the Chajoon Municipal Museum and the Chajoon Botanical Garden</td>
</tr>
<tr>
<td>province</td>
<td>[Haenam] Free entrance to the Haenam Botanical Garden, Free entrance to the Gyeonggi Art Center and the Museum, 10% discount for facility use at the Jangahn citizen’s center</td>
</tr>
<tr>
<td>North Jeolla province</td>
<td>[Jeonju] Free entrance to zoos, 10% discount for the performances directed by the Sori Arts Center</td>
</tr>
<tr>
<td>South Jeolla province</td>
<td>[Suncheon] Free entrance to the Suncheon Bay Ecological Park and drama sets, Free entrance to the Natural History Museum, Literature Museum and Namhong Memorial Museum</td>
</tr>
<tr>
<td>[Cheonan] 10% discount for the Taebaek Mountain Literature Museum, Yulpo Sea Water Bath and Tea Museum</td>
<td></td>
</tr>
<tr>
<td>North Gyeongsang</td>
<td>[Pohang] 10% discount for Mt. Gidcheong’s botanical garden, Free entrance to the Gyeonggi Art Center and the Museum, 10% discount for facility use at the Jangahn citizen’s center</td>
</tr>
<tr>
<td>province</td>
<td>Free entrance to various tourist destinations including museums, caves, etc.</td>
</tr>
</tbody>
</table>

Finally, the card company issuing the Green Card provides 10-20% of points for the amount used for public transportation (bus and subway) as part of the specialized services.

The government is focusing on the compensation for the public transportation and green life activities to provide services meeting the intent of the Green Card program. The point accumulation rate and maximum limit are commensurate with the amount of previous month usage.

Citizens who practice green life with the Green Card can enjoy all the benefits and also can donate a portion of accumulated points to a social community or environmental activity.

3. Status and achievements

BC Card was selected as the management company for the Green Card System through a public competition in April 2011 prior to the implementation of the Green Card System. Then, KB Card was also chosen as the participating card along with BC brand banks. In May, manufacturers and distributors who wanted to participate in the Green Card System were invited and MOUs were established between those firms and the Ministry of Environment.

On July 22, 2011, the Green Card System became effective and President Lee Myeong-bak visited the issuance bank to obtain the first card, which attracted much attention from the beginning. By May 2012, 20 months after the initiation of the system, 2.6 million members joined the system and more than 10% of the economically active population (24.66 million people as of February 2012) is participating in the green life program.

- In fact, the results of the survey conducted in May 2012 for 1,445 Green Card holders showed that the green activity index of the citizens has improved 50% for public transportation, 46.6% for green product purchase, and 66% for energy saving at homes. It is anticipated that the number of Green Card members will increase to 4 million by the end of 2012.

![Figure 4: Status of Green Card members](image-url)
By the way, Green Corporate Card\(^1\), which was introduced in December 2011, exceeded 10,000 accounts and help Green Card settle as the steady brand from million brand. In the mean time, by extending participating bodies from individuals to firms and public organizations, the system is being stabilized as the icon for green life consumption in which citizens, firms and government participate in. It worked as a motivation for an extended basis of green consumption and green finance revitalization, and contributed to enhance the recognition that the green life and green consumption is "easy to practice in every day life and economically beneficial". It was selected as Best Credit Card of the Year award by the Financial Supervisory Service, Credit Card Best Seller top 10, and the outstanding example of green growth policy evaluated by the Prime Minister’s Office.

4. Anticipated effects

The Ministry of Environment expects that 3% of greenhouse gases generated from households, or 2.08 million tons per year will be reduced if 3 million Green Card holders achieve 10% of energy saving and green product purchase, which is equivalent to planting 749 million pine trees each year.

- To see obvious and realistic results, we need to expand the number of participating firms and products in the green consumption sector of the Green Card, and to improve the convenience by increasing the number of stores to offer points.

4. Future plans

In June 2012, the government evaluated green consumption revitalization and green life action plans. Results showed that there has been a quantitative expansion but the effect of green product purchase is limited due to insufficient products and distributors participating in the program.

Currently most of the participating products are bikes, wall papers, sheets and detergents, and the most frequently purchased products (food, toilet papers, appliances) are still not participating enough. Therefore, to secure a substantial purchasing power, it is necessary to extensively increase the products for Green Card points and the number of distributors such as convenience stores where Green Cards can be used.

Government is planing to increase the number of Green Card participants to more than 100 and point reward products to more than 850 by the end of 2012 to extend the benefits for Green Card users. The scope of point earning products is also expected to expand from existing Eco Labelling and Carbon Footprint Labeling products to highly energy efficient products and organic farm produces.

To improve the convenience of the Green Card, green POS will be developed at small & medium markets. Another plan is in the progress to return the environmental fund raised by the paperless credit card (no printing of paper receipts).

In addition, government is making effort to raise funds for the management of the Green Card and Carbon Point System. An income tax deduction is also being reviewed to increase the satisfaction of consumers and their participation in the green life activities.

Besides, continuous improvement measures will be prepared by gathering consumer opinion, and globalization of the brand will be planed through advertisement using new media, international patent application, and international events.