

# **Survey on Green Purchasing Activities in Korea**

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**Korea Environmental Labelling Association**

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## **1. Introduction**

A workshop was held at the Korea Chamber of Commerce and Industry in Korea on February 10, 2003, aiming to promote the manufacturing and consumption of environment-friendly products. The meeting attracted more people than expected and the participants sat through the sessions in their entirety, reflecting the heightened interest in environment-friendly products in Korea.

The current system of mass production, consumption, and disposal, has provided material abundance to many parts of the world. However, it has simultaneously brought on global environmental problems such as resources and energy depletion, air and water pollution, global warming, ozone layer destruction, and desertification.

Aiming to resolve these problems, the Korean government is pushing ahead with various environmental policies. Notably, environmental policies, which focus on developing and maintaining sustainable production and consumption systems, are designed to reduce environmental loads without restraining production and consumption activities. Past environmental policies that addressed production-related processes were unable to combat current environment problems, so some have advocated implementing a system that enables continued production and consumption.

Taking into consideration the entire product processing mechanism, ranging from raw material collection to production to consumption and eventual disposal, a product is labelled an environment-friendly product or a green product if it produces less loading to the environment than other products with the same usage. A green purchasing scheme, which embraces environment-friendly products has emerged as a positive solution in addressing environmental problems caused by mass production and consumption, enabling the structuring of a solid sustainable production and consumption system. The green purchasing scheme not only lowers environmental loading by incorporating environment-friendly products, but also encourages corporations to pursue environment-friendly management, thus greatly helping to structure a sustainable production and consumption system.

Given its significance, various sectors including the public and industrial sectors in Korea have recently been implementing numerous systems aimed at promoting green purchasing. This report aims to highlight some of those systems.

## **2. Green Purchasing in the Public Sector**

Given the nature of environmental problems, efforts made by the public sector as opposed to those made by other sectors will prove crucial for the success of green purchasing in the early stage. The role that the public sector plays is a vital one, and in that capacity Korea has implemented several systems to invigorate green purchasing in the public sector.

Such systems endorse the preferable purchase of accredited products with environmental labels and the purchase of recycled products.

Legislation for Environmental Technology Support and Development and Promotion of Resources Saving and Reutilization, provide for preferable purchase systems that encourage the purchase of recycled products and accredited products with environmental labels.<sup>1</sup> In accordance with these laws, the Minister of Environment requests the heads of public agencies to take necessary steps to promote such purchases, and those public agencies in turn should take steps to implement such laws.<sup>2</sup> The key public agencies include national and local governmental agencies, their-invested institutions, and special corporations that are mandated by law to undertake and assist national agencies' in their work. These agencies should purchase accredited products with environmental labels and recycled products, and submit performance reports to the Minister of Environment. The Minister of Environment is then required to publish the results of the agencies in governmental journals.

This principle holds true to the planning and carrying out of construction and civil engineering projects. Relevant public agencies are required to make reasonable efforts to use more environment-label accredited and recycled products in the design of relevant projects if this does not have a detrimental effect on the product.

With respect to the government's procurement of goods and services, Articles 23 and 26 of the Ordinances of Act relating to contracts to which the state is a party provide that agencies concerned are required to seek environment-label accredited products or recycled products through Selective tendering or limited tendering. This effort attempts to promote green purchasing in the public sector. Under the arrangements with the Public Procurement Service, supply goods sent to public agencies must have their suitability deliberated. Environment-friendly products are given more points so as to encourage green purchasing by public agencies.

In the same manner, the Public Procurement Service includes a technologically-superior factor in its criteria for designating Excellent Quality Products<sup>3</sup>, aiming to encourage their purchase.

Korea also maintains similar policies regarding energy-conservation products in addition to environmental-label products and recycled products.

Regulation for diffusion of energy-efficient goods (as notified by the Ministry of Commerce, Industry and Energy(MOCIE)) states that the Minister of Commerce, Industry and Energy can require the heads of public agencies to purchase energy-efficient goods when new or

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<sup>1</sup> The preferable purchase of accredited products with environmental label and recycled products has been limited to accredited products with type environmental label (hereinafter referred as environmental label). In the case of recycled products, the preferable purchase is limited to the recycled products the Minister of Environment publishes.

<sup>2</sup> The law relating to Environmental Technology Support and Development provides that the Environment Minister may request to heads of public agencies to take necessary steps for preferable green purchasing, and the head of a public agency so requested shall comply with the request without special reasons. This is seen not as an obligation but a recommendation unlike the law relating to Promotion of Resources Saving and Reutilization. However, the Environment Ministry is pushing to revise the law concerned to be upgraded to the level of the law relating to Resources Saving and Reutilization, thus paving the way to encourage the green purchasing.

<sup>3</sup> As the main purpose of the Excellent Quality Products System lies in supporting the sales for promising small- and medium-sized companies and venture companies, the following products are highly likely to be designated as Excellent Quality Products. -Advanced technology products (KT, NT, EM, IT, GR, GQ, new technologies related to electricity and construction) -Products under patent and practical new design manufactured by small- and medium-sized companies or venture companies.

replacement demand occur. The public agencies include national and local governmental agencies, their-invested institutions, their-reinvested institutions and national and public research institutions.

Similarly, the Energy Consumption Products Purchase Operation Criteria (as decreed by the Public Procurement Service) states that when a relevant agency requests the procurement of energy-efficient goods, electricity-saving office equipment or home appliances, the manager in charge of the purchase and contract must immediately confirm their accreditation as energy-efficient products with the Minister of Commerce, Industry and Energy (head of Korea Energy Management Corporation). The manager must then report confirmation of accreditation to the relevant agency, and if affirmative, encourage its usage. However, if an accredited product cannot be found competitive because only a single company manufactures it, the use of such a product may not be encouraged.

In addition to these green purchasing systems established by national laws and the central government, local administrations and public agencies are voluntarily making strides towards green purchasing.

For instance, the Seoul Metropolitan Government has decided to enact its own green purchasing criteria and implement it starting January 1, 2004. It aims to cut down on costs incurred by the consumption of resources from using environmentally harmful products as well as social costs from environmental pollution.

Public agencies are unable to consider the environmental factors in finalizing purchase contracts because existing national contract-related laws only provide for lowest price bidding systems and a set national standard for determining successful contracting parties. However, Seoul City's green purchasing criteria requires a supplier to prove the environmental benefits of the product concerned through objective data, thus reinforcing the importance of environmental factors.

As such, green purchasing is complicated and comprehensive. Seoul City officials must consider all product factors (ranging from manufacturing, distribution, consumption, to disposal), then establish environment-related criteria for each product, and ultimately reflect all this in contract terms and conditions. Seoul City has previously established environmental criteria for six items (roads, gas boilers, street lamp ballasts, tap water meters, tires, and laser printers), which are likely to bring about a greater effect of environmental improvement. The city will further continue to set such detailed criteria. The city will also request relevant agencies to revise standards and special construction specifications to promote the use of more environment-friendly materials in its ordered projects.

The city's green purchasing criteria is expected to bring about the effect of preventing the waste of resources and environmental pollutants generated by using environment-hostile products. Also, these efforts will expand demands for environment-friendly products, promote their production and development by businesses, and help disseminate the green purchasing culture to other local administrations and citizens.

### **3. Green Purchasing in Industrial Sectors**

As a growing number of people are starting to acknowledge the importance of a healthy environment, the Korean industrial sector is striving to enhance their corporate image by addressing the industrial environmental problem through the use of environment-friendly green purchasing from the early stage of gathering raw materials, as well as by realizing that environmental problems can be trade barriers thus shedding the past attitude of treating environmental problems passively only after the fact.

Corporations only observe existing relevant domestic and foreign regulations when they conduct green purchasing. As mentioned earlier, it can serve as a countermeasure to forthcoming environmental regulations to take environment into account from the stage of purchasing raw materials. This approach is all the more important for Korea because the country sees a higher share of its exports, notably electrical and electronic goods, becoming the focus of environmental regulations aimed at reducing wastes in advanced nations such as EU, the U.S.A., and Japan. In addition, green purchasing enables reductions in cost for treating wastes, improves overall environmental performance, and enhances the image of corporations that practice it.

Mindful of the significance of green purchasing and environment-friendly management by corporations, the Act relating to the Promotion of the Transfer to Environment-friendly Social Structure provides that policies and steps that aim to promote and disseminate environment-friendly management, support corporations that develop and utilize environment-friendly management techniques as well as corporations that manufacture and purchase environment-friendly products shall be implemented.

Given such necessity and the movement of the times, large businesses have bought into green purchasing, and have recently diversified efforts to disseminate this trend to small and medium sized businesses.

In March 2003, the Ministry of Commerce, Industry and Energy announced that it will push a business model using the Supply Chain Management tenet, aiming to nurture the ability to conduct clean production and environment-friendly management. Thus, if large businesses present a program on clean production and environment-friendly management together with its supplier companies, the government will support 50 to 75% of the costs involved. This project pursued by the ministry primarily focuses on helping small and medium businesses foster the ability to conduct clean production and environment-friendly management. It simultaneously enables large businesses to be supplied with quality environment-friendly parts. Also, the government can maximize its support by allowing large businesses to serve as intermediary managers against small and medium businesses, instead of providing direct support to the latter.

This report highlights Korea's large businesses such as Samsung Electronics Co. Ltd., LG electronics, the Hanwha group and Korea Water Resources Corporation among Korea's representative public enterprise, and introduces the condition of green purchasing respectively.

At first, Samsung Electronics Co. Ltd. is one of the top-ten electronics manufacturers in the world. Since its inception in 1969, Samsung has successfully transitioned from an analog driven product line to a cutting-edge and award-winning digital innovator that is currently the world's number one manufacturer of CDMA cell phones, LCD and CRT monitors, DRAM memory chips and microwave ovens. With worldwide electronic product sales of \$27 billion, over 64,000 employees in 89 facilities, and a global network in 47 countries, Samsung is truly a global giant and has been recognized as one of the world's Top 100 Brands by BusinessWeek magazine.

LG Electronics is a major global player in electronics & telecommunications, operating 72 subsidiaries around the world with over 55,000 employees worldwide, which was established in 1958. LG Electronics focuses on Digital TV, CD-RW, DVD, CD-ROM, DVD-ROM Drives, PCs, Monitors, Mobile Handsets, CRTs and PDPs.

Since its inception in 1952, the Hanwha Group focused on development in the petrochemical and machinery businesses. The Hanwha also considerably expanded its scope of business activities through engaging in the areas of trade, construction, foodstuffs and distribution.

And recently Hanwha has set its course to solidify its third industrial sector of finance, electronics, distribution, leisure and social welfare.

Finally, since its foundation in 1967, Korea Water Resources Corporation (KOWACO) is one of representative Korea's public enterprises, which provides sufficient water through a constant development of water resources nationwide and control water quality. Its revenue and capital are up to 1,280.2 billion won and 4,992 billion won in 2001 respectively.

### ***1) Samsung Electronics Co. Ltd.***

Samsung Electronics, mindful of entering the European market where strict environmental regulations are implemented, conducts green purchasing whereby it considers designs aimed at achieving environmental-friendly disposal when manufacturing parts using hazardous substances.

As demonstrated by Sony's green partnership program, a growing number of clients require environment-friendly products as they conduct the green purchasing system. Together with these requirements, ROHS directives, which will be implemented in July 2006, aims to ban the importing into EU of products that contain six hazardous substances including Cd, Pb, Hg, Cr6+, PBB, and PBDEs, and environmental regulations will surely emerge as a powerful trade barrier. Thus, Samsung Electronics conducted surveys of its suppliers in 2002 to find out whether products contained the hazardous substances. Twenty-two percent of its suppliers were found to have contained hazardous substances in their products which were supplied to Samsung.

Through these efforts, Samsung Electronics has pushed ahead with the green purchasing system whereby it purchases environment-friendly raw materials from its suppliers to respond to customers' desire for environment-friendly products.

In its first stage, the company will structure a green purchasing system by 2003. In its next stage, it will settle down green purchasing and ban hazardous substances by 2004. In the third stage, the company will structure a green supply network in 2005 aiming at bolstering its competitiveness.

Samsung Electronics conducted a benchmarking survey of advanced businesses in September 2002 to structure the first-stage green purchasing system, surveyed the status of hazardous substances contained in products in October 2002, and established green purchasing regulations in December 2002.

Starting January 2003, the company implemented the green purchasing system targeting raw and semi-raw materials, parts and all packaging materials. In February 2003, it organized a Green Purchasing Team and held sessions on the system.

To activate green purchasing, Samsung Electronics is pushing to survey supplied products in the first half of 2003, audit its suppliers in the second half, complete a green purchasing computerization system by September 2003, and structure database on environmental information of raw and semi-raw materials by December 2003.

To successfully push ahead with its green purchasing system, Samsung Electronics must first and foremost carry out an audit on its suppliers and their products. Starting January 1, 2005, the company plans to avert those suppliers that use hazardous substances beyond the permissible density level.

So, the company will classify its suppliers into eco-partners and non-eco-partners so as to apply different purchasing procedures to them. In the survey forms, the company will feature an

assurance statement related to information on hazardous substances, a list of hazardous substances showing their presence or absence and their contents, analysis results showing analytic agencies, techniques, contents, and analyzers, and a disposal plan until 2004. The company requires its eco-partners to complete and submit survey forms only one time and whenever components are changed. On the other hand, the company requires its regular partners to complete and submit survey forms at the initial supply time, when components are changed, and whenever they supply products. Also, the company allows firms that don't use hazardous substances in their products to submit only assurance statements at the initial supply time.

With respect to new purchases, the company conducts prior audits for green purchasing, and performs surveys on hazardous substances so as to ascertain whether the firm involved is an eco-partner or a regular partner. With respect to suppliers providing hazardous substance products, the company conducts on-the-scene audits, and conducts a written audit on those suppliers who do not reveal products with banned substances contained. Banned hazardous substances include the six chemicals as outlined in the RoHS directives, and substances banned in manufacturing include five k ozone-destroying substances (CFC, HCFC, Methyl bromide, 1,1,1-T.C.E., and Carbon tetrachloride). If a firm with its products containing hazardous substances intends to be designated as an eco-partner of Samsung Electronics, it must earn 130 points out of the total of 150 with the condition that it must have plans to completely dispose of its products with hazardous substances contained. However, if a firm with its products containing hazardous substances has no plan to completely dispose of its hazardous substance products, it cannot become an eco-partner of Samsung Electronics. If a firm does not contain hazardous substances in its supply products, it must obtain 45 points out of the total of 50 to become an eco-partner of Samsung Electronics.

Also, the company operates its eco-product web site to provide relevant information. This aims to supply environment-friendly products, create green markets, and publicize the campaign to customers and interested parties, thereby enhancing its business competitiveness. The site features EP strategies, development history, environmental reports, and quality test results.

In addition, the company is developing an environment-friendly products-related program called the Samsung Eco-Product System or SEPS, targeting all its domestic and overseas DS-overseen workplaces. SEPS consists of five modules including LCA, Eco-design, green purchasing, environmental accounting, and environment-related customer treatment. SEPS, when completed, will provide LCA data to the general public and experts. The system will likewise provide data for environmental label accreditation and a database on environment-friendly suitability of raw and semi-raw materials. It will further be used to provide information on work processes, environmental loadings of substance, environmental costs of products, environmental evaluation of suppliers, and accreditation of eco-partners.

## **2) *LG Electronics***

At the end of 2002, LG Electronics established an environment-friendly supply chain management system in response to European product-related environmental regulations, namely the EU WEE/RoHS directives, as well as the company's own initiatives to develop and purchase environment-friendly parts. This environment-friendly supply chain management system was initiated after the company conducted surveys on available data, benchmarked techniques of advanced businesses, and reviewed environmental regulations and laws. Through green purchasing, this system aims to control hazardous substances early on in the manufacturing process, starting from the use of environment-friendly parts that are then used to manufacture environment-friendly products.

The company initially applied the system to assess its TV products in order to set up relevant regulations for its parts suppliers to systematically monitor hazardous substances. First, the company investigated environment-regulated substances related to TV products and then reviewed relevant international agreements, laws regulating substances in other nations, and benchmarked techniques of advanced businesses. The company then established guidelines on the selection of hazardous substances. In accordance with these guidelines, the company initially identified 45 substances in its TV products that needed to be eliminated, with the intention to modify the number of substances based on later review. The company then performed on-site inspections of their TV products for hazardous substances. In addition, the company required its parts suppliers to submit information on parts components, their environmental management activities, and environmental policies. The data collected from the on-site inspection along with the information submitted by parts suppliers were then reviewed by a group of experts. Based on the review, the company determined what measures needed to be taken and then categorized them into projects that were to be handled internally, together with other businesses, or by parts suppliers. In addition, the company updated the list of hazardous substances to be eliminated from 45 to 27 substances after review.

In pinpointing these hazardous substances, LG Electronics referred to the U.S. Environmental Protection Agency's Cancer Risk Scores because it had yet to determine its own evaluation method. The company is now pushing to create an internal database with the 27 hazardous substances determined in its own studies, which includes six EU-banned hazardous substances.

The environment-friendly supply chain management system employed by LG Electronics also has the capacity to address other environmental regulations. For example, the system can be used to pinpoint mercury content in order to report mercury levels of products being sold in the states of Maine, New Hampshire, and Rhode Island in the U.S.A., as required by the U.S. Electronic Industries Alliance. Also, the company could use ESCM results in its efforts to draw up an agreement with the Swedish government on product-related environmental regulations.

LG Electronics has also applied its environment-friendly supply chain management system and environment risk assessment of parts suppliers to LG media products, in addition to its line of LG digital appliances.

### **3) *Hanwha Group***

Spearheading the purchasing of environment-friendly goods and services is the Hanwha Group which has embraced the tenets behind green purchasing so as to help uphold environmentalism in production and distribution systems across social sectors. Green purchasing will also be used as a means to continue the reinforcement of the organization's environmental management system.

Hanwha Group practices green purchasing focused on end-use consumption goods rather than on raw and semi-raw materials, thus intensively disseminating the campaign's ripple effect to the whole processes of relevant products' production and distribution. The business group even published and distributed Green Life magazine in 1996. The magazine featured articles on how to practice green purchasing in using paper in the workplace, equipment and parts, energy, product design, packaging paper, and raw materials. The group structured an e-purchasing system aimed at efficiently pursuing green purchasing across its affiliates. Through an integrated purchasing headquarters established in 2000, the group also endeavours to ensure economical mass production and efficient logistics aimed at establishing a green distribution system.

Hanwha Group focuses its green purchasing on efficient energy use, resources conservation, and energy-saving and recycled end-use products aimed at maximizing the ripple effect. Likewise, the group converted its buildings into energy-saving buildings in 1999, by mass-purchasing high energy-efficient lamps and ballasts as well as by replacing personal computers and monitors with energy-saving versions. As for recycled products, the group practices green purchasing by focusing on printers, and is considering green purchasing of printing and office paper items. It posted 9.9 billion won and 4.2 billion won in green purchasing of these energy-saving and recycled products in 2000 and 2001, respectively.

Furthermore, the Hanwha Group reflected green purchasing performance in evaluating its affiliates for 2002, and considered environmental factors in selecting its partners, thus practicing green purchasing.

Also, as part of the Environment-friendly Supply Chain Management (ESCM), the group supports its business partners in improving work processes. For instance, it helped Samyoung Ink improve its work processes by improving work environment measures by 50%, thus saving 220 million won. Likewise, Hanwha assisted Three Tech in improving its wallpaper process, thus coming up with a 30% wastes reduction measure and helping Three Tech save 390 million won annually.

To activate the use of green products, it is crucial to address distribution networks in Korea. Hanwha will thus cooperate with Hanwha Stores and the Eco-Procurement Association so as to operate exclusive booths focused on selling excellent environmental products. It is now selecting relevant products. Joining the Green Purchasing Network (GPN) in 2002, the group is also hoping to reinforce green purchasing. In addition, realizing that what is crucial for green purchasing includes scientific marketing methods that involve surveys on consumers purchasing trends and analysis, the group is planning for it accordingly.

#### **4) *Korea Water Resources Corporation (KOWACO)***

KOWACO once faced resistance from civic groups and environmental groups in connection with its dam projects. However, in order to perform its social obligations and meet the diverse desires of the people as a public corporation, KOWACO came up with an environmental management plan and held an advisory conference in March 2002. KOWACO, now upholds environmental management and green purchasing.

KOWACO practices green purchasing as one of its environmental management tasks, so as to disseminate sustainable a green purchasing-oriented consumption culture, and to encourage its business partners towards environment-friendly product manufacturing and use. Thus, KOWACO is amending relevant regulations and criteria so as to reflect both quality and environmentalism in purchasing products, and it will likewise purchase government accredited green accredited products.

The purchasing contract guideline will specify a requirement for purchasing of environment-friendly products and green products, and require justifications for purchasing regular products in connection with environmental products, thus hoping to reinforce the green purchasing system.

To stress the purchasing of environment-friendly products, each department is required to set a certain goal of green purchasing of environmental products, and towards this end, KOWACO will feature environment-friendly products through its homepage.

Also, KOWACO will structure an environmental information management system designed to manage its green purchasing performance and use it to evaluate its environmental performance and environmentalism. To effectively activate green purchasing, the public corporation will include plan vs. performance in environment-friendly purchasing and purchasing ratio of environment-friendly products in its in-house evaluation indexes.

The corporation will require the use of quality products of environment-friendly accredited products in connection with contracted works, and specify environmental criteria where no accredited products are available in connection with environment-friendly products. It will further require a specification of design unit prices by requiring the purchases of quality products out of environment-friendly products in connection with ordering of facilities design and services.

#### **4. Product-related Information Utilized in Green Purchasing**

In connection with activating green purchasing, various environmental labels are crucial for providing the most significant information on environmental products.

Environmental labels in Korea include Environmental labels, Good Recycled Mark, Energy Saving Mark, and the Environmental Declaration of Products (EDP) system.

In accordance with Article 20 of the Act on Environmental Technology Support and Development, Environmental labels aim to highlight products that create less pollution in the course of production and consumption compared to other products of the same use, and help save resources, to provide accurate information on products to consumers, and to encourage corporations to develop and manufacture products in response to consumers' preferences.

In Korea, the environmental label system has been in place since April 1992. Likewise, the Ministry of Environment oversees an overall environmental label system including the enactment and amendment of the system-related regulations and provides technical and administrative support. The Korea Environmental Labelling Association undertakes to select environmental label-target products, enact and amend accreditation criteria, accredit environmental labels and follow up on accredited products, as well as publicize environmental label system and accredited products.

In accordance with Act on Promotion of Resources Saving and Reutilization, through the Good Recycled Mark system, the government accredits the quality of recycled goods by improving the quality of consumers-averted recycled goods, diffusing consumers' lack of confidence in them, and expanding the demands. The Korean Agency for Technology and Standards under the Ministry of Commerce, Industry and Energy, accredits excellent recycled marks.

Starting in April 1999, the Energy Saving Mark was implemented to encourage energy saving in regards to electronic goods. This mark indicates that a product affixed with it is an energy saving product and a firm affixed with it is a firm that endeavours to conserve energy.

The Energy Saving Mark system was implemented to make the people aware of the significance of saving energy in overcoming national economic difficulties. This mark enables people to recognize a high energy-efficient product or a superior energy-saving workplace.

The Energy Saving Mark is provided on the basis of accreditation. The category includes accredited high-efficient energy equipment, first-rank energy consumption-efficient products, energy saving firms, energy use businesses and organizations in agreement with Green Energy Family Movement Headquarters, voluntary energy saving bodies, superior firms rated by five-year energy

saving plans, and occasions deemed necessary by the head of the corporation in connection with energy use rationalization.

Lastly, the EDP system quantifies environmental impacts from natural resources used in the whole product process involving raw materials collection, product manufacturing, and product consumption and disposal -- necessary for manufacturing products --, as well as from discharged pollutants. It is a Type III Environmental Label system that has been implemented since April 2002. The EDP system likewise provides objective and differentiated information on products to encourage consumers towards green purchasing.

The EDP system was implemented in accordance with Article 20 of the Act on Environmental Technology Support and Development. As for the EDP system, while its operation and accreditation work are undertaken by the Ministry of Environment and Environmental Management Corporation, respectively, the Korea Environmental Labelling Association operates the LCI information network, and the Korea Environmental Preservation Association offers education to examiners.

**<Certification Systems for Environmental-friendly Goods in Korea>**

	<b>Environmental Label System</b>	<b>GR Mark System</b>	<b>Energy Saving Mark</b>	<b>Environmental Declarations of Products system</b>
Starting year	1992	1997	1998	2002
Regulatory Framework	Article 20 of Act Relating to Environmental Technology Support and Development	Article 31 of Act Relating to Promotion of Resources Saving and Reutilization	Act on Energy use rationalization	Article 21 of Act Relating to Environmental Technology Support and Development
Lead Government Agency	Ministry of Environment	Ministry of Environment	Ministry of Commerce, Industry and Energy	Ministry of Environment
Operating body	Korea Environmental Labelling Association	Korean Agency for Technology Standards	Korea Energy Management Corporation	Ministry of Environment
Targeted products	<b>84 items</b> Office items, construction materials, living goods, industrial goods, etc.	<b>224 items</b> waste paper, waste plastic products, waste fibers, waste rubber products, etc.	<b>48 items</b> Electricity-saving office and home appliances (15) High-efficient energy equipment and materials (23) Energy consumption efficiency mark-required products (11)	<b>11 items</b> Refrigerator, freezer, etc.
Certification costs	100,000 Korean won Use fee: 1 mil. to 5 mil. won annually	None (shouldered by the government)	480,000 Korean won	More than 7.8mil. Korean won
Government procurement policy	Selective tendering (For one supplier, limited tendering)	Limited tendering	Preferably purchased by Public Procurement Service	-
Measures of implementation	Preferable purchase by public agencies Mandatory use of tap water-related goods by public agencies Financial support warranty (pending)	Obligatory purchase by public agencies Price differentiating system (10%) Financial support: -Work to support technology development -Industrial base funds, industrial base technology development finances -Restructuring funds for medium businesses -Energy use rationalization funds -Funds for fostering recycling industries -Technology trust guarantee funds -Business incubation funds	Obligatory use by public agencies Obligatory use of high-efficient lighting equipment for construction Support funds for installation and manufacturing firms Taxes reduction for investing in energy saving facilities (10%) Support accreditation test fees for medium businesses (up to twice annually)	-
Logo				

Each accreditation agency provides detailed information for the various products with an environmental label. The Korea Resources Recovery and Reutilization Corporation (KORECO) provides information on recycled goods, and the Korea Environmental Labelling Association offers information on products with an environmental label. Also, the Environmental Management Corporation provides information on accredited products in connection with the EDP, while the Korea Energy Management Corporation offers information on accredited products in connection with the energy saving mark.

The Korea Environmental Labelling Association ([www.kela.or.kr](http://www.kela.or.kr)) provides information on environmental label-accredited products. The association also provides information on environmental label-accredited products to relevant agencies and organizations, and consumers through the internet and various publicity booklets. In addition, it encourages the eco-procurement or green purchasing with the government, local administrations, and public agencies, providing information on environmental product distribution and supporting the publicity.

In addition, by offering accredited products and relevant publicity materials at various environmental exhibits, the association is endeavouring to publicize environmental label products and broaden the knowledge base. KORECO operates a separate comprehensive information system on product recycling ([www.okrecycle.com](http://www.okrecycle.com)). This site provides information on the recycling movement, foreign recycling firms, and other reutilization information, as well as product sales/purchase information between recycled product firms and their clients, and information on samples and transactions like orders, thus helping public agencies purchase priority recycled products.

As discussed earlier, the Environmental Management Corporation is in charge of high-efficient energy equipment and material as accredited and first-rate energy consumption-efficient products. The corporation focuses on providing lists of accredited products rather than on providing detailed product information.

Also, the Environmental Management Corporation is in charge of providing information on EDP-accredited products. Aiming to disclose transparent environmental information on products, thus activating the accreditation system of EDP and disseminating green consumption, the corporation has structured and started to operate an exclusive EDP accreditation web site (<http://www.edp.or.kr>). The site discloses information on domestically produced home appliances such as refrigerators, PDP TVs, LCD monitors, CRT glass, and tissue rolls as well as other EDP-accredited products. The site features environmental information on 20-plus EDP-accredited products, an introduction to EDP system, accreditation criteria, accreditation consultations, and accreditation procedures and methods.

As such, Korea has no one single agency to provide environmental information on products, and each relevant agency instead provides information on accredited products. In the long term, Korea has yet to establish one single comprehensive information provider. Given that the government and public agencies purchase more through Public Procurement Service (PPS), the Ministry of Environment and Korea Environmental Labelling Association are endeavouring to use the PPS' Government e-Procurement System aimed at activating green purchasing.

The PPS Government e-Procurement System has yet to feature functions designed to classify and search environmental label-displayed products so as to help staff in charge of purchasing. Thus, the government is pushing to require the display of relevant marks on the contracted product mall in Government e-Procurement System to confirm whether a product is an environmental product. It is also pushing to feature a list of environmental label-displayed products only when a user wants so.

To boost the preferable purchasing of environmental label-displayed products, the Ministry of Environment is pushing to receive directly from PPS preferable purchasing performance data by relevant agency, which is currently received through governmental and public agencies.

These efforts will boost the purchasing of environmental products.

## **5. Introduction to Organizations' Green Purchasing Promotion**

The Green Purchasing Network (GPN) is crucial for facilitating green purchasing in Korea.

Established in 1999, GPN, consisting of 38 officers and 99 members from the private sector and NGOs, aims to encourage consumers to purchase environment-friendly products, thus promoting green purchasing and addressing environmental and economic concerns.

GPN's activities can be classified into three categories – research, publicity, publication.

In respect to GPN's research activity, they gathers information on consumers' needs and corporations' production trends, selects relevant products for writing guidelines on environment-friendly products, and formulates guidelines on environmental features and quality of priority products based on survey results. To activate consumption of green products, GPN surveys the status of green purchasing of consumers and the government and corporations, and pinpoints factors obstructing purchasing, thus pursuing purchase expansion. Recently, GPN has been making efforts to cover policy development for promoting green purchasing.

GPN publicizes the purposes of green purchasing, and encourages people to join in as they make tours across the nation. Also, GPN displays various environment-friendly products (environmental label-displayed products, high-efficient energy equipment and green Q products) in comparison with regular products, promoting them, and providing opportunities to select and purchase them. GPN likewise holds competitions aimed at promoting green purchasing and gives awards to model green purchasing cases that boost green purchasing at government, corporation and civic organizations, thus intensively building a consensus across the board in society and boosting participation in the campaign. GPN also offers information on environment-friendly goods and publicizes this through mass-media when necessary.

Also, environment-friendly goods catalogue for green purchasing and for purchasing of energy-saving goods are published by the GPN. At times, they also inform their activities by publishing news magazine.

In addition, other various agencies are making diverse efforts to activate green purchasing.

As mentioned earlier, Seoul City plans to formulate and implement Green Purchasing Criteria starting 2003. Local Agenda 21 Nationwide Consultative Council is pushing ahead with various projects aimed at disseminating Seoul City's green purchasing criteria to other local administrations by setting it as one of its 2003 projects.

Established to improve domestic environmental technology, foster environmental industries, and boost environmental investment efficiency, the National Environmental Technology Information Center, which is organized by the Ministry of Environment and Environmental Management Corporation, is endeavouring to promote the purchasing of environment-friendly products by drawing people into its cyber exhibit hall. The hall displays excellent recycled products, environment mark products, and water-saving facilities and equipment, among other things.

Established to uphold the spirit of helping one other and to enable consumers to voluntarily improve welfare, the Living Cooperatives have interest in green purchasing. They, in accordance with relevant law, may purchase environmental living goods (reutilized goods, recycled goods and environment-friendly goods), and supply or reprocess/supply them. Notably, Living Cooperatives in the Seoul metropolitan area are endeavouring to achieve efficient logistics that involves selection and production area management of living goods, joint production of living goods booklets and order sheets, joint carry-in and storage of living goods, and goods pick-up and delivery by cooperative. Thanks to these efforts, Living Cooperatives have recently been dealing with a growing quantity of environmental living goods instead of organic agricultural products at the initial stage.<sup>4</sup>

Other environmental label accreditation agencies are also endeavouring to promote their respective green purchasing.

## **6. Conclusion**

As specified above, relevant organizations make efforts to promote green purchasing at their own levels including the establishment of legal tools. But due to the lack of knowledge regarding environmental products and the necessary distribution networks, green purchasing has not fully taken off.

In order to solve these problems, all the parties involved including the government, manufacturers, consumers and NGO's need to make more strident efforts. They need to come up with a strategy for establishing roles and proper means of execution.

The enactment of integrated acts such as the Green Purchasing Act in Japan should be considered in the development of an effective strategy. With this in mind, the establishment of an organization can be taken into consideration in order to present necessary information in a systematic fashion including information as to accredited products and their environmental performance records.

It is important for manufacturers to employ an environment-friendly supply-chain management system. Such efforts will bring forth reductions of environmental risk, improvements in the environmental performance of suppliers, and development of environment-friendly products. This may take some time since the environment-friendly supply-chain management system has only just entered the initial stages of development in the large business sector.

In Korea, sufficient data is lacking in regards to hazardous substances which functions as the base for building an environment-friendly supply-chain management system. This problem is prevalent and affects many countries worldwide. For example, Agenda 21 of the Rio Declaration established in 1992, recommended management of hazardous chemical substances. But currently, only powerful international organization such as OECD, EU and highly-developed countries including the United States, Sweden, and Norway have made marked efforts to obtain data on the dangers of hazardous chemical substances.

Taking these factors into account, cooperation between businesses and between nations needs to be encouraged to build an effective environment-friendly supply-chain management system.

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<sup>4</sup> Living Cooperatives saw organic agricultural goods represent 63.4% of its living goods by the end of 2000. However, last year saw the share plummet to a whopping 49.4%. On the other hand, processed foods posted a 36.8% share, and industrial products including environmental living goods accounted for 13.6%, up 40% and 100%, respectively.

The experience of advanced businesses and their data on hazardous substances will be invaluable to other businesses.