4. <u>THE TEN YEAR FRAMEWORK OF PROGRAMMES ON</u> <u>SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS</u> (SCP)

(1) Generic issues relating to the inclusion of SCP in national policies: 3R

Specific Implemented Actions and Implementation Process

The Basic Law for Establishing the Recycling-based Society was promulgated in June 2000 and put into effect in January 2001 to reform the society and the people's lifestyles based on mass production, mass consumption and mass disposal, to secure the material cycle in society and to form a "recycling-based society" where the consumption of natural resources will be restrained to reduce the load on the environment.

The law targets the whole of wastes including valuable and invaluable ones and calls for Japan to realize the "recycling-based society" where "the consumption of natural resources will be restrained and the environmental load will be reduced as far as possible," by restraining products from becoming wastes, by paying attention to the usefulness of wastes and reviewing wastes as recyclable resources, by promoting appropriate recycling (reusing, material recycling and heat recovery) of recyclable wastes, and by securing appropriate disposal of wastes failing to be recycled.

The Basic Law for Establishing the Recycling-based Society provides for the responsibility of waste generators and the extended producer responsibility as the basic concepts for policy measures.

The Basic Law for Establishing the Recycling-based Society also calls for the government to establish the basic plan for establishing the recycling-based society.

The basic plan for establishing the recycling-based society is a central mechanism for the comprehensive and systematic promotion of the policies for establishing the recycling-based society. In March 2003, the government established the "First Basic Plan for Establishing the Recycling-based Society" that indicated the image of the desirable recycling-based society, set quantitative targets for the resource productivity, cyclical use rate, final disposal amount as material flow indicators, and the people's relevant efforts, and gave the directions of measures being taken by the central government and other entities.

In March 2008, the government made a cabinet decision to revise the first plan into the second one. The plan calls for the general public, business organizations, NGOs, NPOs, universities, local governments, the central government and all other actors to cooperate in forming the recycling-based society. Particularly, it urges the central government to comprehensively implement (1) integrated efforts to create a low-carbon society or a natural symbiosis society, (2) the promotion of the formation of regional recycling-based zones, (2) national 3R campaigns, (4) the promotion of recycling-based society businesses through such measures as the thorough diffusion of green purchasing, (5) the expansion of 3R mechanisms to curb waste generation, (6) the advancement of 3R technologies and systems, (7) information collection and human resources development, and (8) the construction of an international recycling-based society.

In order to secure the steady implementation of the basic plan for establishing the recycling-based society, the Central Environment Council is required to check up the progress of measures based on the plan every year and give reports on the future policy direction as necessary. In FY 2008, the council conducted the first check-up of the progress in the second basic plan.

Lessons and Good Practices

The second basic plan for establishing the recycling-based society set tougher quantitative targets for the three indicators regarding the inlet, outlet and cycle of material flow and set up indicators to supplement and monitor the three indicators.

The target year for each indicator is FY 2015. Following are the latest data for the indicators:

i) Resource productivity (= GDP/natural resources input)

The plan sets a target for the resource productivity of about 420,000 yen per ton for FY 2015 (almost double the FY 1990 level of about 210,000 yen per ton and up about 60% from 260,000 yen per ton in FY 2000). In FY 2006, the productivity stood at 348,000 yen per ton.

ii) Cyclical use rate (= cyclical use amount/cyclical use amount plus natural resources input)

The plan sets a target for the cyclical use rate of about 14% to 15% for FY 2015 (up about 80% from about 8% in FY 1990 and up 40% to 50% from about 10% in FY 2000). In FY 2006, the rate stood at about 12.5%. iii) Final disposal amount (= Final disposal amount of wastes)

The plan sets a target for the final disposal amount of about 23 million tons for FY 2015 (down about 80 percent from about 110 million tons in

FY 1990 and down about 60 percent from about 56 million tons in FY 2000). In FY 2006, the amount stood at about 29 million tons.

The plan also sets a per capita daily waste generation target for the general public.

Trends and New Challenges

After the first check-up of the progress in the second basic plan for establishing the recycling-based society, the council indicated such future challenges as the further promotion of efforts to attain the quantitative targets, faster statistics reports, the combination of lowcarbon and natural symbiosis society policies, the development of systems and the enhancement of cooperation for strategic uses of useful resources including rare metals, the further promotion of "reduce and reuse" campaigns, the promotion of local government efforts to develop regional recycling-based zones while invigorating regional economies, and the demonstration of Japan's leadership in building a recyclingbased society in Asia.

Constraints and Difficulties

While steady progress has been found in measures under the second basic plan for establishing the recycling-based society, various challenges including the need for further policy cooperation have been highlighted in regard to specific measures. In future, we should deepen consideration of various challenges specified through the check-up and promote the plan, while grasping the trend of each indicator.

(2) GREEN PUBLIC PROCUREMENT POLICIES, LAWS AND REGULATIONS

(i) Green public procurement policies, laws and regulations

Concrete actions taken and specific progress made in implementation

The Law Concerning the Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities, also known as the "Green Purchasing Law", was enacted on May 31, 2000 and generally implemented on April 1, 2001.

The government, based on this law, created the "Basic Policy Concerning the Promotion of Procurement of Eco-Friendly Goods and Services" in a Cabinet decision in order to promote the procurement of products and services contributing to the reduction of environmental impact, and each institution has created a procurement policy in line with this basic policy, obliging the promotion of such procurement. There were originally 14 categories with 100 specific procurement items regulated by this policy, but 8 years after implementation of the law this has increased to 246 items in 19 categories.

Meanwhile, the law has obliged the efforts of local public entities, and because the systematic green purchasing initiatives established in large-scale municipalities such as prefectures and major cities have been observed to be insufficient in some local municipalities here and there, National public awareness initiatives are being made, such as the "Green Procurement Initiative Guidelines for Local Public Entities" (established in March 2009). Additionally, in a 2009 survey, 85.5% of towns and 64.4% of villages said that they are systematically implementing the initiatives.

Lesson learned

When the amount of reduction in greenhouse gases in the calculable specific items purchased by government agencies was calculated, the resulting reduction in CO_2 gases came to about 125,000 tons.

Recent trends and emerging issues

In the latest "Basic Policy Concerning the Promotion of Procurement of Eco-Friendly Goods and Services", 10 items have been added, 1 item deleted, and the standards for 39 items reviewed, to total 246 items in 19 categories. The Cabinet decision for this was on February 13, 2009, it was publicly announced on March 5 and brought into effect on April 1. Regarding standards for waste paper, since the problem of concealing waste paper was brought to light in January 2008, it is planned to continue giving the highest priority to waste paper, using certified forest material, thinnings and unused material, etc. and also environmentally friendly raw materials.

Additionally, because of the unreliability of specific purchasing products and their environmental labeling, there is an urgent need to restore this reliability through further diffusion / expansion of green purchasing.

Major constraints and challenges

The purchasing of environmentally friendly products, etc. is an obligatory regulation for local municipalities engaging in about 3 times their share of the nation's economic activities. In prefectures, major cities, and local municipalities, green purchasing initiatives have already penetrated, but at the village level they have remained at about a 6% rate of implementation. Diffusion / promotion in these local non-implementing municipalities are becoming a big topic.

(ii) Recycling Promotion Laws

(Container and Packaging Recycling Law)

Specific Implemented Actions and Implementation Process

The Law for Promotion of Sorted Collection and Recycling of Containers and Packaging was established in June 1995 and put into effect in April 1997 to reduce wastes and make effective use of resources by promoting recycling of container and packaging wastes that account for some 20% to 30% of the weight for wastes from households and for about 60% of their cubic content. The law was amended in June 2006 to enhance relevant measures.

Lessons and Good Practices

Sorted collections of PET bottles and plastic containers have increased year by year. Thanks to an increase in the number of municipalities implementing sorted collections, plastic container collections in FY 2007 rose by some 6% from the previous year to 644,000 tons and PET bottle collections by about 6% to 283,000 tons. In the year, the PET bottle collection rate (municipalities' sorted collections/output) for municipal sorted collections came to 49.4%, increasing slightly from 49.3% in the previous year.

Trends and New Challenges

While consumers have grown conscious of recycling year by year, they have not necessarily well informed of products into which these containers are recycled. How sorted collections are treated should be made public to consumers who cooperate in sorted collections. The recycling process should be made transparent.

(iii) Home Appliance Recycling Law

Specific Implemented Actions and Implementation Process

Waste home electric appliances include abundant useful resources including iron, aluminum and glass, while Japan's space for final waste disposal has been limited. The reduction of such wastes has become an urgent challenger. Wastes must be reduced and recycled. Based on such conditions, the Law for Recycling of Specified Kinds of Home Appliances was established in June 1998 and put into effect in April 2001 to provide for a new product recycling mechanism to impose new requirements on manufacturers and retailers of home electric appliances in order to realize a recycling-based society through the reduction of wastes and the sufficient utilization of recycled resources to secure appropriate disposal of wastes and effective utilization of resources.

Lessons and Good Practices

Home appliance manufacturers' recycling rate in FY 2008 stood at 89% conditioners. at 89% for televisions. for air at 74% for refrigerators/freezers and at 84% for washing machines, remaining above statutory levels as seen in the previous year. The recycling rate rose by 2 percentage points for air conditioners, by 3 points for TVs, by 1 point for refrigerators/freezers and by 2 points for washing machines. This may be because recycling technologies have been improved to expand the range of materials for recycling and promote recycling of plastic materials.

(iv) Construction Waste Recycling Law

Specific Implemented Actions and Implementation Process

Concrete blocks, asphalt concrete blocks, wood and other wastes generated from construction accounted for about 20% of industrial waste emissions and their final disposal amount (in FY 2001) and about 60% of their illegal dumping amount (in FY 2002). As buildings constructed in a decade from 1965 end their service lives, construction waste emissions are expected to increase in future. As a solution to the problem, the Law Concerning Recycling of Materials from Construction Work was established in May 2000 to recycle these wastes to secure effective utilization of resources.

(v) Food Recycling Law

Specific Implemented Actions and Implementation Process

The Law Concerning the Promotion of Recycling Food Cyclical Resources was established in May 2000 and put into effect in May 2001 to provide for basic measures for recycling of food cyclical resources and restriction and reduction of food wastes and to promote recycling of food cyclical resources. Amendments to the Food Recycling Law were enacted and promulgated in June 2007 and put into effect on December 1, 2007, to toughen the guidance and controls on food-related businesses and facilitate recycling.

(vi) End-of-life Vehicle Recycling Law

Specific Implemented Actions and Implementation Process

In terms of weight, about 80% of vehicles made from iron and other useful metals have been recycled with the remainder disposed as shredder dusts mainly at landfill sites. But landfill space shortages and rising disposal costs have led to concerns about illegal dumping and inappropriate disposal of end-of-life vehicles over the recent years. Fluorocarbons used as coolants for vehicle air conditioners may deplete the ozone layer and cause global warming unless they are appropriately recovered and disposed. Special skills are required for handling airbags when vehicles are scrapped. Therefore, the Law Concerning Recycling Measures for End-of-life Vehicles has been created as a new vehicle recycling system,

Lessons and Good Practices

Vehicle crushing residues as industrial wastes of vehicle crushers are recycled and disposed while wide-area regulations and coordination are conducted amid the uneven distribution and shortage of recycling and disposal facilities. Under the situation, local governments' regulations on inflow of industrial wastes could affect wide-area regulations and coordination for vehicle crushing residues.

(3) INSTRUMENTS FOR SUSTAINALE CONSUMPTION

(i) Awareness-rising programmes/campaigns on SCP, including water conservation, energy efficiency, waste minimization and recycling

<u>Concrete actions taken and specific progress made in implementation</u> In order to build a sustainable society, it is necessary for each individual citizen to view environmental problems as their own, switching to an environmentally friendly lifestyle while promoting voluntary environmental conservation activities for people of all walks of life.

Main purpose of this "Ministry of the Environment at home" is to improve the awareness of environmental preservation in activities close to home through providing a place / opportunity to disseminate environmental information to families around the country in order to promote an eco-lifestyle, reducing greenhouse gases, etc. emitted s a result of domestic life.

Specifically, the "environmental household account book" provided on the project website provides information on the status of CO_2 reduction that can be browsed in graphs, etc. by having each household record the amounts of their utility usages.

In addition, information on activities and achievements are solicited from households around the country for our family's "eco declaration arrow", giving public recognition to households who have implemented outstanding activities, spreading word of the activities around the country.

Environmental education in corporate activities is being promoted through instruction tools for employees and their families.

Lesson learned

The content of information related to the eco-lifestyle that could be enjoyed while being put into practice was not fully maintained in the case of households.

There were few households who grasped the factors in carbon dioxide (CO2) emissions from the household, emission amounts, etc. and many households were not even aware of the existence of the environmental household account book itself.

Recent trends and emerging issues

"Recent Trends"

Addition of new content to the website, providing information from a one-click survey used on the website, along with an analysis of trends related to heightened awareness and knowledge related to people's ecolifestyle.

A "<u>Green Household Appliances Eco-Point System</u>" was implemented from May 15, 2009, and the application procedures for eco-point registration and product exchange began on July 1 of 2009. With these trends, new content has been added to the website in the form of opinions and impressions of people who have used the eco-point system, with regard to how much energy was saved in the green household appliances purchased, how helpful it was to exchange ecopoints for something and how that helped their eco-lifestyle, ecolifestyle initiatives in households using the eco-point system, etc.

"Various New Problems That Occurred"

In July 2009, due to the unexpected rapid growth of households registering for eco-family, penetrating some 100,000 households, the space on the server hosting the website ran out, causing some system trouble such as some online content becoming unavailable, etc.

Major constraints and challenges

The location of the main activities of this project is on the Web, and so those who don't have IT equipment such as a computer, and those in an environment where Internet access is unavailable, cannot access this project.

It is necessary to have individuals actively make use of the focal content of this project, the "environmental household account book", but the habit of continually making records in it has not yet taken hold.

A strong incentive for individuals to continuously make records in the environmental household account book cannot be introduced.

(ii) Policies and/or infrastructure to support citizen's choices for responsible consumption of products and services, including consumer information tools

<u>Concrete actions taken and specific progress made in implementation</u> An "Eco-Action Point Model Project" has been put in place since 2008 to stimulate choices regarding purchase of energy-saving products, energy-saving actions, etc., using points as a financial incentive when choosing products / services and actions that are connected to the prevention of global warming. It is planned to promote diffusion of this system in the future so that more businesses and individuals will participate.

Furthermore, in 2009, the "Project for Promotion of Green Household Appliances through Eco-Point Activities" was started, giving points that can be exchanged as a financial incentive for various products, such as televisions, air conditioners, and freezers with high energy-saving functionality. As of 8/31, applications worth about 1,500,000 points have been received, showing steady results.

Lesson learned

It is important to make a fair, easy to understand system, where the purpose and awareness of the policy are widely known common knowledge, and which involves both businesses and individuals.

Recent trends and emerging issues

The number of applications for the "Project for Promotion of Green Household Appliances through Eco-Point Activities" has been steadily increasing and it can be said that the level of familiarity of individuals with the project has been heightened through obtaining points as a financial incentive for sustainable consumption and for household appliances labeled as energy-saving. In the future, the task will be to establish this familiarity even further.

Major constraints and challenges

The implication of the "Project for Promotion of Green Household Appliances Through Eco-Point Activities" is also that of an emergency economic package, with the source of the points being covered by government expenditure, but through promotion of an eco-action point model project where points are paid for by the private sector, an independent business model is established and it becomes necessary to establish an eco-point system.

(4) SCP IN NATIONAL PRIOPRITY AREA

(i) Promotion of Corporate Social Responsibility in the sector

<u>Concrete actions taken and specific progress made in implementation</u> Looking at the progress of corporate initiatives for independent societal responsibility, efforts are being made to publish environmental report guidelines and environmental accounting guidelines, and to spread environmental reports and environmental accounting. In basic plans to promote the model of a recycling society, about 50% of listed companies and about 30% of non-listed companies are aiming to publish environmental reports by fiscal 2010, and to implement environmental accounting. In a survey in fiscal 2007, about 48.9% of listed companies and about 26.9% of non-listed companies published environmental reports, with 37.2% of listed companies and about 20% of non-listed companies implementing environmental accounting, but the steady increase in previous years has slightly reduced and in the future it is desirable to spread these practices to a much greater extent.

(ii) R&D incentive or support provided

Concrete actions taken and specific progress made in implementation

With the "Third Basic Environmental Plan" and the "Third Basic Program for Science and Technology"(both Cabinet decisions) established in 2006, the promotion and establishment of nationally important investments in environment research / technology development have come about with regard to each of 4 important areas (low carbon, recycling, harmony between people and nature, peace / safety) mentioned in "Promotional Strategies for Environment Research / Environment Technology Development" (Central Environment Council Report).

The general evaluation for these plans is that there has been a steady increase in implementation.

Specifically, both policy-based research /technology development and implementation of proposals from researchers have been realized through the allocation of competitive research investment chosen from research institutions, universities and business.

In addition, in order to disseminate environment technology developed especially by small and medium sized companies, an "Environmental Technology Verification (ETV) Project" has been implemented, to verify objectively the performance of the advanced environmental technologies by third parties.

Regarding specific progress in important set areas, there is the example in the area of low carbon of the launch of the "IBUKI" (GOSAT) greenhouse gas monitoring satellite, the data of which has strengthened core functions in global warming research and other national global warming research achievements are reflected in IPCC Report No. 4, etc.

Lesson learned

It will be even more necessary to clarify priority tasks meeting the environmental policy demand, to enrich cross-disciplinary research / technical development and policy research, and to work together with other government agencies.

Recent trends and emerging issues

In the last few years, attention has been focused on initiatives for the realization of a low-carbon society worldwide, which has largely affected policy decisions including science and technology policy. Also looking toward the construction of a sustainable society, the promotion of integrated research / technical development (for example, research / technical development that will give concrete shape to mitigation and adaptation strategies for climate change, etc.) that has been imperative.