Initiatives to stimulate Eco-Innovations concerning Households

- Experience in Japan -

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Ministry of the Environment
Measures to stimulate Eco-Innovations concerning Households

- Team minus 6%
- Top Runner Program
- Energy Saving Labeling
- Eco-Mark
- Eco-Action Points
- Diffusion of Low Emission Vehicles
- Diffusion of Photovoltaic Systems

... and so on
Team minus 6% -Nation-wide Campaign against Climate Change-

> Japan’s commitment to the global community is the reduction of GHGs by 6%
> “Team Minus 6%” is a project aiming to cut CO2 emissions through collaboration among citizens, businesses, civil groups, NPOs and government
> “COOL BIZ” is a business style of light dressing with no tie and jacket, which enables us to feel cool and comfortable with the air conditioning set at 28 degrees centigrade in summer.

**Six actions for CO2 reduction called for by the Team Minus 6%**

<table>
<thead>
<tr>
<th>Action</th>
<th>Illustration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set air conditioners to 28°C in summer and to 20°C in winter</td>
<td>![air conditioner]</td>
</tr>
<tr>
<td>Turn off a faucet every time you use it</td>
<td>![faucet]</td>
</tr>
<tr>
<td>Unplug electric appliances when not using</td>
<td>![electric appliances]</td>
</tr>
<tr>
<td>Choose eco-friendly products</td>
<td>![eco-friendly products]</td>
</tr>
<tr>
<td>Say no to excessive packaging</td>
<td>![excessive packaging]</td>
</tr>
<tr>
<td>Keep on energy efficient driving</td>
<td>![energy efficient driving]</td>
</tr>
</tbody>
</table>

**Cool•Biz Effect (2007)**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of those who knows COOL BIZ</td>
<td>Know 96%</td>
</tr>
<tr>
<td>Ratio of air conditioners set to higher</td>
<td>48.1%</td>
</tr>
<tr>
<td>temperature than previous year</td>
<td></td>
</tr>
<tr>
<td>Estimated amount of CO2 reduction</td>
<td>1,400,000 tons</td>
</tr>
</tbody>
</table>

**Logos**

![Cool Asia 2006](image)

“Cool Asia 2006” on May 31 2006 in Tokyo.
Many ambassadors of Asian countries and Cabinet members of Japanese government attended this eminent fashion show.

**Member**

Team member (As of April 27, 2009)
Individual ・・・・・・・・・・・Approx 3,063,828
Businesses/civil groups ・・Approx29,040
On Top Runner Program, energy consumption efficiency standards are established on each target machinery and equipment.

Manufacturers are required (obliged to make efforts) to improve the energy consumption efficiency of the machinery and equipment, so that they meet the standards.

By setting the current highest level as the standard in the future, we aim that the current highest level will be the common level.

> The Program is composed of
  / Targeted machinery and equipment ranges
  / Target fiscal years
  / Energy consumption efficiency standards
  / Methods to evaluate energy consumption efficiency, and so on.

> More than 20 kinds of machinery and equipment we covered.
e.g. Automobile, Truck, Air Conditioner, Refrigerator, Freezer, Cooking Stove.
Energy Saving Labeling

> Energy Saving Label on each product provides
  / Energy consumption efficiency
  / Comparison with energy consumption efficiency standard of Top Runner Program.

> 16 kinds of machinery and equipment have been targeted.
  e.g. Air Conditioner, Fridge, Freezer, Light, Heater, TV, Cooking Stove.

Manufacturers are expected to affix either of these labels on each product.

- **Green mark**: The efficiency of the product is higher than the Top Runner Standard.
- **Orange mark**: The efficiency of the product is lower than the Top Runner Standard.
Eco-Mark
--- Eco Mark Project started in 1989. ---

> Eco-Mark provides **environmentally friendly characteristics** of the products.

> **47 kinds of categories** of products have been set up.
e.g. Bag, Clothes, Paper, Ink, lubricating Oil, Writing Materials, Glassware.

> **Standards** are established on **each category**.
e.g. Level of recycle of material in the product, Returnable structure and strength.

> Eco-Mark program is operated by **Japan Environment Association (JEA: nonprofit organization)**.

/ Standards are set up by “Eco-mark Committee for Establishing Category and Criteria” in JEA.

/ “Committee for Product Certification “ in JEA decides whether one corresponding product meets the standard or not (namely, certify whether the product is eligible for Eco-Mark).

>> **Both committees are consisted of neutral experts.**
Eco-Mark is displayed on 4,544 products.

1,631 manufacturers make contracts with JEA to display Eco-Mark on the products.

It is required to make a contract with JEA to display Eco-Mark on each product after certification.

Basic Procedure

1) Manufacturer, aiming to display Eco-Mark on its product, has to apply to “Eco-Mark Products Certification Examination”.
2) Committee decides whether the product meets the standards of the category. After that, certificate of the Eco-Mark product is issued.
3) The manufacturer makes a contract with JEA to display Eco-Mark on the product.
4) The manufacturer pays fee for displaying Eco-Mark.

>>> The manufacturer is allowed to display Eco-Mark.

( In the case that there is no category which the product is placed into, manufacturers can propose that new category should be set up. )
Eco-Action Points

Issued when consumers purchase highly energy-saving appliances or take energy-saving actions.

Consumers can exchange eco-action points for energy-saving goods and others.

Exchanging eco-action points for energy-saving goods and etc. will further promote environmental awareness and eco-action of consumers.

Ministry of the Environment is promoting Eco-Action Point model projects managed by private sectors.

Highly energy-saving home appliances and equipments

- A/C
- Heat pump
- Double Windowpane
- Fridge
- TV

Saving Electricity and Gas

Saving Eco-Action Points

Issuing eco-action points

Purchase, Take actions

Donation to Global Warming Countermeasures

Energy-saving goods

Utilization of Trains

Reduction of CO2 Emissions from Household Sector
Aiming to promote revitalization of economy and CO2 emissions reduction, we accelerate purchase of energy-saving home electronic appliance by Eco-Action Point Scheme.

- Eco-Points will be issued to consumers, when they purchase refrigerators, air conditioners or TV sets that meet certain standards of energy consumption efficiency within 1 year.
- Consumers can exchange Eco-Points for energy-saving goods and others within 3 years.
- The Government sets up a fund in order to manage capital for procurement of goods for exchange. In the 2009 FY supplementary budget, 300 billion yen has been appropriated for the fund.

1) Main cause of GHG emission in Household sector

- GHG Emissions from the household sector increased by 41% compared to FY1990, a drastic increase (FY2007)

2) Sharp drop of sales due to economic depression

- Shares of consumption of electricity by types of home electronic appliances (FY2003)
  - A/C: 25%
  - Refrigerator: 16%
  - TV: 10%
  - Lighting: 16%
  - Others: 33%

- Total Turnover of major Japanese home electronics makers (FY):
  - 2004: 40
  - 2005: 45
  - 2006: 50
  - 2007: 55
  - 2008: 12%

3) Reduction of CO2 emissions resulting from replacement of A/C.

- ※Compiled by MOE based on information from major 8 electric appliance makers
Diffusion of Low Emission Vehicles

Current LEVs in Japan

Natural gas vehicles (CNG)

Hybrid vehicles (HV)

Electric vehicles (EV)

Low-emission & high fuel-efficient vehicles (LE&HFE)

Fuel cell vehicles (FCV)

*Methanol vehicles is also classified as LEV in Japan.
Measures to promote diffusion of LEVs
: Reduction of Tax, Subsidies, Financing (low-interest)

**Reduction of Tax**

- **Vehicle Weight Tax**: Vehicles are due to be checked every 2 years for securing safety. Through this checking procedure, Owners have to pay this tax.
  - EV, FCV, a part of CNG, a part of HV > Exemption
  - a part of LE&HFE > 50% off or 75% off

- **Vehicle Tax**: Owners of the vehicles have to pay this tax every year. The tax rates are set according to the amount of the displacement. [Greening of Vehicle Tax]
  - Reduction: EV, FCV, a part of CNG > approximately 50% off
    - a part of LE&HFE (containing HV) > approximately 25% off or 50% off
  - Addition: Gasoline car (more than 13 years old) > approximately 10% add
    - Diesel car (more than 11 years old) > approximately 10% add

- **Vehicle Acquisition Tax**: Anyone who acquires a vehicle has to pay this tax.
  - New Car: EV, FCV, a part of CNG, a part of HV > Exemption
    - a part of LE&HFE > 50% off or 75% off
  - Used Car: EV, FCV, a part of CNG > 2.7% deduction (tax rate)
    - a part of HV > 1.6% or 2.7% deduction (tax rate)
    - a part of LE&HFE > 150,000 yen deduction or 300,000 yen deduction

Japan is thus aiming to become once again the world leader in photovoltaic system, and is promoting a huge increase in the installation of photovoltaic systems with the target of increasing the amount of installations 10-fold by 2020 and 40-fold by 2030.

Measures to increase the installation

> Planning / Setting up more concrete target, in order to attain the aim above.
> Subsidies/ Subsidizing installation of photovoltaic system (household ...etc)
> Reduction of Tax
  / Reduction of income tax (1% of the balance of home (including photovoltaic system) loan)
  / Reduction of tax income (10% of the cost of the installation of photovoltaic system)
> Feed-in Tariff / A mechanism under which power companies buy power at a fixed rate for a certain period, with the costs incorporated in electric charges, aiming at securing short-term investment recoveries.

The Government is developing a bill to establish a Feed-in Tariff Program.