2012 Environment Minister's Award for Global Warming Prevention Activity

December 12, 2012

Sponsor: Ministry of the Environment
Secretariat: Japan Center for Climate Change Action
Bees, Inc.

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Overview of the 2012 Environment Minister's Award for Global Warming Prevention Activity

1. Purpose and objective

The Ministry of Environment has been giving the Environment Minister's Award for Global Warming Prevention Activity since 1998 to honor individuals or groups that have made significant contributions towards preventing global warming yearly in December, designated as Global Warming Prevention Month, as part of efforts for promoting countermeasures against global warming.

2. Award categories

(1) Technological Development and Commercialization

(2) Countermeasure Technology Introduction and Dissemination

(3) Implementation of Countermeasures

(4) Environmental Education/Dissemination and Enlightenment

(5) International Contribution

3. Target of application

Individuals or groups that have made a significant contribution to global warming prevention in each category (local governments, companies, NGOs, schools, etc., including joint implementation; the same shall apply hereinafter) and individuals and groups that cooperate in and support the aforementioned activity. The award is limited to individuals who live in Japan or groups whose organizational bases are located in Japan.
Note, however, that individuals or groups that received the Environment Minister's Award in the past for the same activity or achievement for which they have applied for nomination this year are excluded from the target of application.

4. Selection criteria

Target category	Award target achievements
(1) Technological Development and Commercialization	Achievements in development and commercialization of technologies for reducing greenhouse gas emissions such as energy-saving technology, new energy technology, energy-saving products, and energy-saving construction designs
(2) Countermeasure Technology Introduction and Dissemination	Achievements for large-scale introduction and pioneering introduction, or dissemination and enlightenment, of technologies and products for reducing greenhouse gas emissions such as cogeneration, heat pumps, new energy products, energy-saving products, energy-saving new transportation systems, and energy-saving buildings
(3) Implementation of Countermeasures	Achievements for implementing activities for preventing global warming, such as activity for practicing lifestyles that will help prevent global warming, activity for conserving energy effectively in the local community, and tree-planting activity
(4) Environmental Education/Dissemination and Enlightenment	Achievements for development of educational materials, provision of information, educational activities, as well as dissemination and enlightenment about global warming at school, by citizens or within the company
(5) International Contribution	Achievements for international activity for global warming measures such as technology transfer that will help prevent global warming, tree planting overseas, and implementation of or activity towards implementation of the Kyoto mechanisms

5. Status of application

The Ministry of Environment sought applications from the public from August 1 to September 14, 2012.
As a result, there was a total of 160 applications for 2012, with the following breakdown in each category.

	Target category					Total	Percentage of applicants
	Technological Development and Commercialization	Countermeasure Technology Introduction and Dissemination	Implementation of Countermeasures	Environmental Education/Dissemination and Enlightenment	International Contribution		
Self-recommendation	28	14	28	36	2	108	67.5%
Recommendation from others	4	4	11	33	0	52	32.5%
Total	32	18	39	69	2	160	100.0%
Percentage of applicants	20%	11.3%	24.4%	43.1%	1.3%	100.0%	

Change in the number of applicants

	Target category					Total
	Technological Development and Commercialization	Countermeasure Technology Introduction and Dissemination	Implementation of Countermeasures	Environmental Education/Dissemination and Enlightenment	International Contribution	
2007	19	23	38	64	6	150
2008	22	23	33	63	7	148
2009	16	29	38	77	3	163
2010	27	22	31	60	2	142
2011	18	32	13	41	1	105
2012	32	18	39	69	2	160

6. Examination method and decision of award winners

The Selection Committee of the 2012 Environment Minister's Award for Global Warming Prevention Activity (chairman: Norihiro Mitsuhashi, Professor Emeritus at Chiba University of Commerce) examined the applications and selected nominations. Based on the result, the Environment Minister determined a total of 30 award winners (5 in the category of technological development and commercialization, 4 in the category of countermeasure technology introduction and dissemination, 11 in the category of implementation of countermeasures, and 10 in the category of environmental education/dissemination and enlightenment; there was no award winner in the category of international contribution).

Change in the number of award winners

	Target category					Total
	Technological Development and Commercialization	Countermeasure Technology Introduction and Dissemination	Implementation of Countermeasures	Environmental Education/Dissemination and Enlightenment	International Contribution	
2007	7	7	7	14	3	38
2008	7	11	5	11	2	36
2009	3	5	4	17	1	30
2010	5	5	7	8	1	26
2011	4	6	3	8	0	21
2012	5	4	11	10	0	30

7. The list of award winners for 2012

(1) Technological Development and Commercialization (5 award winners)			
	Name of group, etc.	**Details of activity**	**Page**
1	Shiseido Co., Ltd.	Development of a low-energy skin-care emulsion manufacturing process	5
2	Kobelco Eco-Solutions Co., Ltd.	Development of a greenhouse gas reduction-type sewage sludge incineration system	6
3	JX Nippon Oil & Energy Corporation	Development and launch of a household fuel cell system “ENEFARM Type S”	7
4	Nippon Yusen Kabushiki Kaisha (NYK Line)/ Monohakobi Technology Institute	Permanent operation of an air lubrication system, the world’s first shipping energy-saving technology	8
5	Fukushima Industries Corp.	Development of a DC inverter compressor-equipped flat showcase with a built-in refrigerator	9

(2) Countermeasure Technology Introduction and Dissemination (4 award winners)			
	Name of group, etc.	**Details of activity**	**Page**
1	Amino Up Chemical Co., Ltd.	CO_2 reduction through the implementation of environmental load-reducing measures by taking advantage of the characteristics of cold regions and employees’ operational improvement	10
2	Seven-Eleven Japan Co., Ltd.	Promoting energy saving through combined introduction of LED lighting system, solar panels, smart sensors, etc.	11
3	Toyota Industries Corporation, Naniwa Roki Co., Ltd., Kinki University, Osaka Pref. Forest Owners Association	Reduction of CO_2 emissions through the introduction of alternative coke products	12
4	Lawson, Inc.	Adoption of environment-friendly materials for containers and packaging	13

(3) Implementation of Countermeasures (11 award winners)			
	Name of group, etc.	**Details of activity**	**Page**
1	Ehime Prefectural Tambara High School	Maintenance of bamboo forests and manufacturing of bamboo blinds	14
2	Kumamoto Branch of Ecoworks Co., Ltd.	Creation of sustainable homes and way of life beginning with the implementation of “home eco diagnosis” by housing professionals	15
3	En-tec Research Institute	Energy-saving diagnosis and guidance for small- and medium-sized enterprises	16
4	Ohisama Shinpo Energy Co., Ltd.	“Energy-creation” and “energy-saving” business funded by purposeful investments by citizens, which is aimed at establishing a recycling-oriented society	17
5	Kakogawa Works of Kobe Steel, Ltd.	Eco commuting	18
6	Fukushima Tanagura Plant of KYOCERA Corporation	Implementation of energy-saving measures with a focus on solar power generation systems and regional contribution activities	19
7	Nipponkoa Insurance Co., Ltd	Nipponkoa’s efforts for conserving forests in Japan	20
8	NPO Enemira: Energy no Mirai wo Kangaeru kai (Caring for the future of energy) in Okayama	Promotion of global warming prevention by establishing communal power generation stations, etc.	21

	Name of group, etc.	Details of activity	Page
9	Miai-Onsen Village-Miaikan	Challenge to create eco-friendly onsen (hot spring)	22
10	Yamato Transport Co., Ltd.	Promotion of environment conservation activity with Necology as the key word	23
11	Yashio Mill of Rengo Co., Ltd.	A global warming measures project conducted by the "fuel economy Yashio" team—global warming prevention activity by changing the awareness of employees and establishing a global warming prevention system	24

(4) Environmental Education/Dissemination and Enlightenment (10 award winners)			
	Name of group, etc	**Details of activity**	**Page**
1	UNESCO school team of Akita Municipal Akita Commercial High School	Enlightenment activity by offering classes targeting elementary and junior high school students and citizens and by publishing books	25
2	Kiyotaka Okada	Global warming prevention activity with a focus on the Awaji Nanohana Eco Project	26
3	Takasaki Municipal Maniwa Elementary School	Maniwa Elementary School's project for global warming prevention	27
4	NPO Environment Conservation Association Aizu	Experimental environmental education for global warming prevention and raising the awareness toward introduction of natural energy	28
5	NPO Kyushu Biomass Forum	Project for creating graduation certifications from Japanese pampas grass growing on the grasslands in Aso	29
6	Hye-suk Pak	"Practical environmental education," learning from Yokkaichi Pollution and helping prevent global warming, and "Mie zero grocery bag campaign," a low carbon society demonstration activity developed by the people of Mie Prefecture	30
7	Hadano Municipal Higashi Junior High School	Energy environmental education for cultivating children who value the earth and take action at their own initiative	31
8	Kurashi Working Group, Citizen's Environmental Council of Higashi Kurume City	Global warming prevention through the development of a low-carbon emission town	32
9	Fukuyama Municipal Asahi Elementary School	Energy-saving project of Asahi Eco Challenge Squad	33
10	Tatsuo Yamamoto	Dissemination and public awareness activity for assimilating advanced technologies that help prevent global warming into life	34

1. Technological Development and Commercialization

Shiseido Co., Ltd.
5-5, Ginza 7-chome, Chuo-ku, Tokyo 104-0061
Tel: +81-3-3572-5111 (pilot number)
URL: http://www.shiseido.co.jp/

Development of a low-energy skin-care emulsion manufacturing process

The common manufacturing process of skin-care emulsion is to temporarily heat all of the raw materials to emulsify and subsequently cool them down. Shiseido has revised the conventional method by developing a new manufacturing method: heating part of the raw materials to produce highly concentrated skin-care emulsion and then cooling it down naturally by diluting it with water at room temperature. This new method enables the reduction of energy for heating and eliminates the need for the cooling process itself.
By adopting this method, Shiseido was able to significantly reduce the energy used in heating and cooling-about 65% cut in CO_2 compared with the conventional method without changing formula or degrading quality. This new low-energy skin-care emulsion manufacturing process was introduced first for “Rose Garden Rose Body Milk RX,” followed by other products.

Kobelco Eco-Solutions Co., Ltd.
4-78, Wakinohama-cho 1-chome, Chuo-ku, Kobe, 651-0072
Tel: +81-78-232-8018
URL: http://www.kobelco-eco.co.jp

Development of a greenhouse gas reduction-type sewage sludge incineration system

It is known that greenhouse gas generated from sewage treatment facilities contains a high percentage of nitrogen monoxide (N_2O) discharged from sewage sludge incineration systems. N_2O has 310 times as much greenhouse effect as CO_2, and it is important to cut down emissions of sewage sludge incineration systems as a measure for greenhouse gas reduction. N_2O generated in sewage sludge incineration systems can be reduced by raising the incineration temperature. With conventional incinerators, however, it requires heating the inside to a high temperature by charging additional supplementary fuel into the system, which poses a problem of increased running cost.
The "High-efficiency two-stage incinerator," a greenhouse gas reduction-type sewage sludge incineration system that Kobelco Eco-Solutions has developed, gasifies sludge through suppressed combustion at low air ratio and burns it instantly in the secondary combustion chamber to make areas hot locally and accelerate the decomposition of N_2O. That is to say, the newly developed incinerator enables a significant reduction of N_2O emissions (by up to 80%) without the need for additional supplementary fuel because it raises the combustion temperature by using the energy that sewage sludge has naturally and will therefore contribute to the reduction of greenhouse gas discharged from sewage treatment plants.

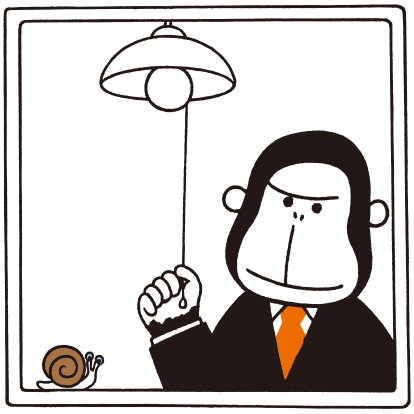
High-efficiency two-stage incinerator

JX Nippon Oil & Energy Corporation
6-3, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-8162
Tel: +0120-56-8704 (toll-free in Japan)
URL: http://www.noe.jx-group.co.jp

Development and launch of household fuel cell system “ENEFARM Type S”

JX Nippon Oil & Energy has developed ENEFARM Type S, the world’s first SOFC*-type household fuel cell system. (*SOFC: Solid Oxide Fuel Cell)
The newly developed SOFC-type system is about 40% smaller in volume compared with the company’s conventional PEFC-type system (PEFC: Polymer Electrolyte Fuel Cell) and has achieved the world’s highest-level rated power generation efficiency of 45% (LHV). By running the system to generate electricity round the clock in accordance with the household demand for electricity, nearly 70% of electric consumption of ordinary households can be covered.
In addition, ENEFARM Type S is a cogeneration system that uses exhaust heat from power generation for making hot water, and has high energy-saving feature with the total energy efficiency of 87% (LHV). Therefore, introduction of the system into ordinary households will enable a 26% cut in primary energy consumption and a reduction of CO_2 emissions by about 1,300 kg/y.

Generating electricity at home and making hot water available anytime



Nippon Yusen Kabushiki Kaisha (NYK Line)/Monohakobi Technology Institute
NYK Line: 3-2, Marunouchi 2-chome, Chiyoda-ku, Tokyo, 100-0005
Tel: +81-3-3284-6195
URL: http://www.nyk.com/

Monohakoi Technology Institute: 3-2, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-0005
Tel: +81-3-5222-7650
URL: http://www.monohakobi.com/ja/inde.html

Permanent operation of an air lubrication system, the world's first shipping energy-saving technology

Amid the increasing need for counteracting global warming, the NYK group has been proactively working on the reduction of CO_2 in the overall maritime transportation. Ships are the most environment-friendly mode of transportation. Considering that maritime freight movement is expected to continue expanding with economic globalization, however, there are concerns about increase in CO_2 emissions. The NYK Group is actively promoting the introduction of energy-saving technologies in order to ensure that ships will remain an environment-friendly mode of transportation that will continue to contribute to the development of the global economy.
As one of the energy-saving technologies, the NYK Group has installed an air lubrication system that pumps air underneath a ship's hull to reduce the frictional resistance between the ship and seawater with the power of foam, which will enable a cut in CO_2, in the Group's three ships under operation and succeeded in permanent operation of the system for the first time in the world. With the system, the NYK Group has achieved about 4–8% CO_2 reduction on average depending on oceanographic phenomena and conditions of ships.
The NYK Group will continue to make active group-wide efforts for controlling global warming.

Image of pumping air into ship's bottom

Fukushima Industries Corp.
16-11, Mitejima 3-chome, Nishi Yodogawa-ku, Osaka, Japan
Tel: +81-6-6477-2011
URL: http://www.fukushima.co.jp

Development of a DC inverter compressor-equipped flat showcase with a built-in refrigerator

Fukushima Industries has developed the industry's first energy-saving DC inverter compressor-equipped model for the typical flat showcase with a built-in refrigerator for retail stores.
The company has adopted its proprietary duty-cycle electronic expansion valve and control microcomputer in refrigerant control to bring about speedy response and precise flow control to enable cooling of various food items from ice creams to ready-made dishes. The company has also developed a three-foot-wide ice cream showcase and five-foot- and six-foot-wide frozen-food showcases with a 100-v power source, which were impossible with conventional technologies.
As for the energy-saving performance of the newly developed products, the comparison of electricity consumption of JIS B8631 built-in showcases has indicated that energy consumption of new products is smaller by 35–54% than that of conventional models. In addition, downsizing of energy exchangers has enabled a cut in refrigerants by up to 70%. The company has also reviewed the air curtain and reduced the volume of refrigerating machines, which has enabled it to absorb increased cost from introduction of energy-saving technology such as inverter compressor with prices unchanged, which in turn allowed the company to promote sales, driven by demand for new installation and replacement, etc.

2. Countermeasure Technology Introduction and Dissemination

Amino Up Chemical Co., Ltd.
363-32, Shin-ei, Kiyota-ku, Sapporo City, Hokkaido 004-0839
Tel: +81-11-889-2277
URL: http://www.aminoup.co.jp

CO_2 reduction through the implementation of environmental load-reducing measures by taking advantage of the characteristics of cold regions and employees' operational improvement

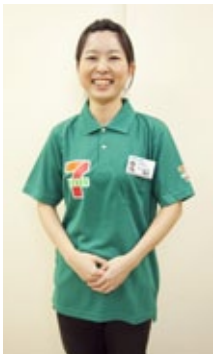
In building its office building, Amino Up Chemical practiced the following: "taking energy-saving measures," "using natural energy specific to cold areas," "implementing resource recycling and local production for local consumption," and "giving consideration to biodiversity." It also implemented environmental load reduction measures by using natural energy through the following means: natural ventilation by adopting a double-skin exterior, thermal load control by solar radiation heat gain, introducing an LED lighting system, introducing energy-saving technologies such as various high-efficiency equipment, well-water air-conditioning system, solar power generation, snow air-conditioning system, earth thermal heat pump system, and cool and heat trench (cooling and warming of introduced outer air by geothermal heat extraction). In addition, the company works on reduction of environmental load by carrying out various improvements in employees' operations. The company selects local contractors and uses materials and electric furnace steel, etc., produced in Hokkaido to strengthen relationships with the local community and implement resources recycling and local production for local consumption, sticking with "processing Hokkaido-made materials in Hokkaido." On the company's premises, trees are planted to link with the natural environment in Hokkaido and the rich natural forest surrounding the company, and a trail for small animals to pass through is established, creating an environment that harmonizes with the local ecological system and is comfortable for small animals to live in.



Seven-Eleven Japan Co., Ltd.
8-8, Niban-cho, Chiyoda-ku, Tokyo 102-8455
Tel: +81-3-6238-3711 (pilot number)
URL: http://www.sej.co.jp/index.html

Promoting energy saving through combined introduction of LED lighting system, solar panels, smart sensors, etc.

Seven-Eleven Japan introduced environment-friendly facilities such as LED lighting systems and solar panels for environment-conscious-type convenience stores, which were opened starting in FY2009 with the themes of “energy-saving” and “energy-creation,” first in stores within Tokyo Electric Power Company’s scope of power supply, which were facing an urgent need for energy conservation after the Great East Japan Earthquake. Subsequently, the company successively installed the facilities in its convenience stores nationwide.
Major energy-saving measures implemented were as follows: (1) conversion of lighting system (used in sales floors, illuminated store signs, etc.) to LED lighting system, (2) installation of solar panels, etc., (3) replacement of facilities and changing specifications (to enhance energy conservation), and (4) introduction of “smart sensors” to the main facilities of stores with the aim of “visualization of electricity consumption.” In addition, the company sent a notification, “10 important points for energy conservation,” to all its convenience stores to help individual stores implement energy-saving measures. Seven-Eleven stores are taking continuous energy-saving measures such as the introduction of a summer uniform to reduce air-conditioning load by wearing light clothing.
As a result of such energy-saving measures, Seven-Eleven stores within TEPCO’s scope of power supply achieved a cut in CO_2 of 16,336 t, or 4.2%, in FY2011 compared with a year earlier. Looking at Seven-Eleven stores nationwide, the number of stores increased by 5.8%, or 773 stores, while CO_2 emissions rose only 1.5%. The company will continue to implement energy-saving measures.


Toyota Industries Corporation, Naniwa Roki Co., Ltd., Kinki University, Osaka Pref. Forest Owners Association

Toyota Industries Corporation: 2-1, Toyoda-cho, Kariya City, Aichi 448-8671
Tel: +81-566-22-2511 (pilot number)
URL: http://www.toyota-shokki.co.jp/

Naniwa Roki Co., Ltd.: 12-34, Shinmachi, Higashiosaka City, Osaka 579-8037
Tel: +81-72-986-2578
URL: http://www.naniwaroki.co.jp/

Kinki University: 4-1, Kowakae 3-chome, Higashiosaka City, Osaka 577-8502
Tel: +81-6-6721-2332
URL: http://www.kindai.ac.jp/

Osaka Pref. Forest Owners Association: 1-8, Minamihonmachi 2-chome, Chuo-ku, Osaka City, Osaka 541-0054
Tel: +81-6-4964-0950
URL: http://www.o-forest.org/

Reduction of CO_2 emissions through the introduction of alternative coke products

In the process of melting cast iron (cupola), cokes have the following two roles: (1) carburizing molten metal and (2) molten fuel of cast iron. While coal cokes serve both of the above roles, Toyota Industries made efforts for reducing CO_2 emissions by using alternative coke products with a lower CO_2 emission coefficient than coal cokes to serve as molten fuel of cast iron as listed above in (2).
The list of alternative coke products includes oil coke, briquette coal, and bio-coke. Bio-coke, in particular, is a carbon-neutral solid fuel produced by heating and applying pressure to woodchips from timber from forest thinning, etc., and used tea leaves discarded by beverage makers, and will contribute significantly to cutback in CO_2 emissions.
Toyota Industries has joined the joint effort for development of bio-coke, conducted by Kinki University, Naniwa Roki, and the Osaka Pref. Forest Owners Association, from the stage of demonstration experiment. In addition, the company examined and blended the optimal combination of the alternative coke products to achieve a cut in CO_2 emissions by about 2,600 t/y. Toyota Industries introduced bio-coke to a real furnace for the first time in the world.

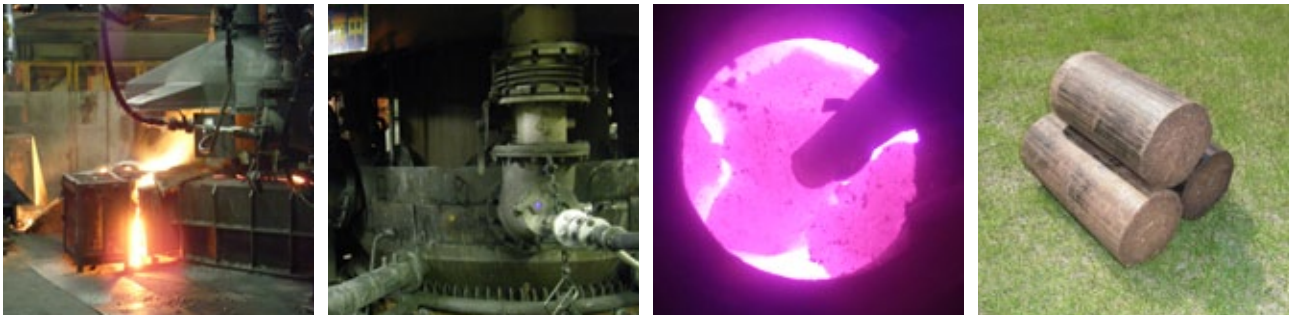


Image of melting cast iron and bio-coke

Lawson, Inc.

East Tower, Gate City Ohsaki, 11-2, Osaki 1-chome, Shinagawa-ku, Tokyo 141-8643

Tel: +81-3-5435-1350

URL: http://www.lawson.co.jp/

Adoption of environment-friendly materials for containers and packaging

Lawson has adopted polylactic acid (PLA), derived from corn, and Bio-PET resin, derived from sugar cane, etc., for use in containers and packages of packed lunches and ready-made dishes sold at its convenience stores. Use of plant-derived biodegradable resins reduces CO_2 emissions, as plants absorb CO_2 when growing. The company started using PLA in containers of sweets and salad in March 2007, and has since sold about 80,000 containers of sweets and salad over five years. Bio-PET resins have been used in the container of cold noodles since May 2012.

In addition, Lawson has implemented measures to cut CO_2 emissions, such as adopting foamed materials, reducing the thickness of containers and packaging, and changing the shapes of containers. As a result, it achieved cutback on CO_2 emissions generated during incineration of containers and packaging by about 10,000 t, or 25.8%, in FY2011 compared with those in FY2006.

Image of Bio-PET

PLA salad containers

3. Implementation of Countermeasures

Ehime Prefectural Tambara High School
163, Ganrenji, Tambaracho, Saijo City, Ehime 791-0502
Tel: +81-898-68-7325
URL: http://tambara-h.esnet.ed.jp/cms/

Maintenance of bamboo forests and manufacturing of bamboo blinds

With the increase of abandoned bamboo forests nationwide, bamboos are growing in groves of miscellaneous trees, which are expected to help reduce CO_2, raising concerns that the environment of satoyama (managed woodlands or grasslands near human settlements) is deteriorating. Students of Tambara High School, therefore, conducted maintenance of bamboo forests with the aim of conserving the environment in the local community, made bamboo blinds to save energy as a global warming prevention measure, and designed their original workbenches for weaving bamboos to create bamboo blinds. They put up the bamboo blinds around the school building and tested their heat-shielding effect as a measure to keep out the heat during summer. As a result, they were able to confirm that the temperature of areas shaded under the bamboo blinds was 7% lower than that of areas without bamboo blinds, and they created a manual for making bamboo blinds.
In addition, Tambara High School offers environmental education through exchange studies with junior high schools in Saijo City, and provides explanations about the status of environmental deterioration in satoyama and about the energy-saving effect of bamboo blinds, as well as instructions on how to make bamboo blinds. Tambara High School also holds presentation for and conducts joint work with local residents. Moreover, the school carries out enlightenment activity through information dissemination on its school website.



Kumamoto Branch of Ecoworks Co., Ltd.
3-25, Mawatari 2-chome, Minami-ku, Kumamoto City, Kumamoto 862-0968
Tel: +81-96-370-9100
URL: www.eco-works.jp

Creation of sustainable homes and way of life beginning with the implementation of “home eco diagnosis” by housing professionals

Ecoworks has been conducting pioneering efforts for energy saving at home and in the house, not only from the viewpoint of making buildings energy-conserving but also from the viewpoint of continuously increasing the effectiveness of energy-saving ways of living by means such as conducting home eco diagnosis and using its original environment-friendly household accounts. In addition, the company is working to disseminate their efforts to local builders across the country.
Houses built by Ecoworks are exemplary models of energy-saving housing: Ecoworks is the only local builder that has been adopted as a pioneering business for CO_2 reduction of housing and buildings by the Ministry of Land, Infrastructure, Transport and Tourism, for three years in a row since FY2009. The company provides unique employee training: it actively cultivates employees with expert knowledge by encouraging its employees to take the environment certificate examination, home energy-saving expert certificate examination, etc.
In the “Home-Eco Diagnosis Pilot Implementation by Private-sector Businesses, etc.,” launched by Ministry of the Environment in FY2011, Ecoworks in the first year conducted pioneering activities as one of the two companies selected as private-sector diagnosis implementation business operators. In the second year, the company expanded the activity to 33 regional builders across the country from Hokkaido in the north to Kagoshima in the south, contributing to nationwide dissemination of the activity.

En-tec Research Institute

3-9, Zendana-cho, Mizuho-ku, Nagoya City, Aichi 467-0013
Tel: +81-52-841-6471
URL: http://hp.nagoya-cci-or.jp/en-tec/

Energy-saving diagnosis and guidance for small- and medium-sized enterprises

En-tec conducted energy-saving diagnosis and gave guidance to about 1,700 companies, with the aim of helping energy-saving and CO_2 emissions reduction efforts mainly of small- and medium-size enterprises, as technology advisor of each prefecture and energy-saving dissemination advisor of Energy Conservation Center, Japan. In addition, the research institute gave more than 80 lectures on energy conservation. It also gave a lecture on energy conservation of combustion management using the zirconia-type oxygen analyzer, which it had developed, in various places in Japan.
Moreover, En-tec conducted energy conservation diagnosis and guidance on energy-saving measures in six foreign countries (Thailand, Malaysia, China, Argentina, Iran, and Poland) for a total of 52 weeks. En-tec also conducts power generation experiments and holds workshop in energy conservation classes of elementary schools, and disseminates and provides enlightening on energy conservation and global warming prevention at municipality events.

A lecture on energy conservation measures for plant managers

A lecture on energy conservation measures for all the employees of the company

An experiment with thermal power generation for elementary school pupils

Ohisama Shinpo Energy Co., Ltd.
2-15, Honcho, Iida City, Nagano 395-0044
Tel: +81-265-56-3711
URL: http://www.ohisama-energy.co.jp/

"Energy-creation" and "energy-saving" business, funded by purposeful investments by citizens, which is aimed at establishing a recycling-oriented society

Nagano Prefecture has a rich natural environment and is endowed with solar light and heat, energy from forests and water resources. Ohisama Shinpo Energy, jointly with the local government and local companies, etc., conducts various environment businesses that make the most of regional characteristics in the south Shinshu area in southern Nagano Prefecture by using investment capital that is raised from citizens nationwide.
In the "energy-creation business" using solar light and wood-based biomass, the company has installed solar photovoltaic power generation systems with a total electricity generation capacity of 1,604 kW, with a CO_2 reduction effect of 836 t/y, in 253 locations (public facilities, private-sector business offices, residential houses, etc.) Ohisama Shinpo Energya also conducts green heat supply business using wood-based biomass etc. in 13 locations, with a CO_2 reduction effect of 261 t/y. In addition, the company conducts energy-saving business by introducing energy-saving equipment to lighting systems and air-conditioning systems in 21 locations (public facilities, spa facilities, welfare facilities, private-sector business offices, etc.) with a CO_2 reduction effect of 632 t/y.
It provides environment education at daycare centers, which have set solar PV power generation systems.
Through such activities, Ohisama Shinpo Energy aims to realize local energy production for local consumption and development of recycle-based society.

Kakogawa Works of Kobe Steel, Ltd.
1, Kanazawa-cho, Kakogawa City, Hyogo 675-0137
Tel: +81-79-436-1111
URL: http://www.kobelco.co.jp/

Eco commuting

In order to contribute to the prevention of global warming, Kakogawa Works of Kobe Steel has switched the means of commuting from privately owned cars to public transportation systems, bus, bicycles, etc., that have lower environmental load.
The company targeted about 10,000 employees working inside and outside Kakogowa Works, and held explanatory meetings and conducted PR activities on a continual basis to obtain their understanding about the project. Subsequently, it prohibited employees under certain conditions from driving to the office in principle.
As alternative means of transportation for employees who used to drive to the office, the company has significantly increased bus services. It also introduced hybrid busses to further reduce environmental load. In addition, the company added a bicycle lane and pedestrian walkway to the road on the premises for employees commuting by bicycle and on foot. As a result of such efforts, the number of privately owned cars used for commuting, which was 8,000 cars per day before the project started, has been almost cut by 50%.
The cumulative reduction of CO_2 from June 2009 to March 2012 amounted to about 7,500 t.

Fukushima Tanagura Plant of KYOCERA Corporation

88, Nakatoyo, Nagare, Tanagura-cho, Higashishirakawa-gun, Fukushima 963-5662

Tel: +81-247-33-3185

URL: http://www.kyocera.co.jp

Implementation of energy-saving measures with a focus on solar power generation systems and regional contribution activities

The Fukushima Tanagura Plant of KYOCERA has been working on reduction of CO_2 as a measure for preventing global warming. Since the government set a summertime power-saving goal in the wake of the Great East Japan Earthquake in 2011, it has been taking more wide-ranging action for energy conservation. Extensive expansion of proprietary solar power generation systems, in particular, has contributed significantly to the reduction of electricity consumption and CO_2. In addition, it is cutting down on greenhouse gas by setting up green curtains, blinds, and awnings; conserving water by economizing water used in toilets and at washstands; as well as reusing drain wastewater and promoting the introduction of hybrid cars.

In order to raise employees' environmental awareness, the Fukushima Tanagura Plant takes measures such as soliciting energy-saving ideas under the Eco Challenge 2012 project, soliciting essays on environment conservation from children, organizing a photo contest for home green curtains, and reducing auto fuel usage by encouraging employees to join commuter car sharing and setting no-driving-to-the-office days. As regional contribution activities, the plant holds a CSR briefing meeting, participates in regional exhibitions, and visits elementary schools to give lectures on environment conservation. As activities to preserve forests, employees actively volunteer to conduct maintenance of satoyama (managed woodlands) on the premises of the plant.

Reducing electricity consumption by expanding solar power generation systems

Visiting elementary schools to give lectures on environment conservation

Setting up green curtains of 4.5 m in height and 53 m in length with bitter melon around the west side of the office building

Nipponkoa Insurance Co., Ltd.

7-3, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo 100-8965

Tel: +81-3-3593-3111 (pilot number)

URL: http://www.nipponkoa.co.jp/

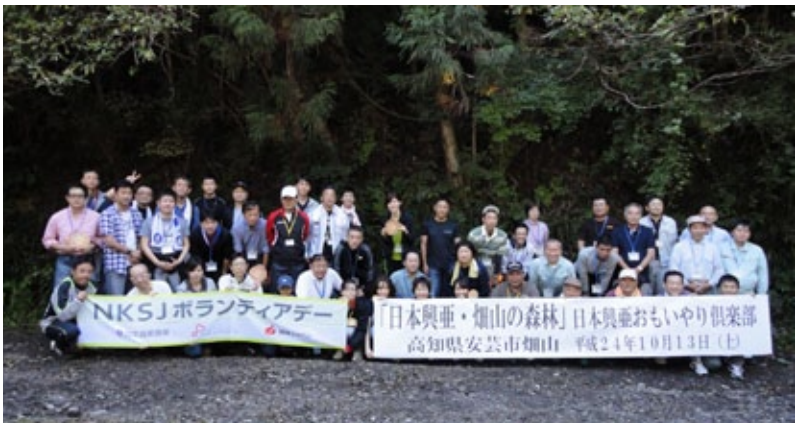
Nipponkoa's efforts for conserving forests in Japan

With the aim of contributing to the swift recovery of disaster-stricken areas and the creation of environment-friendly regions, Nipponkoa Insurance supports the maintenance of forests in afflicted areas and purchases offset credit (J-VER) from these areas.

In selecting support target projects, the company performed evaluation from the viewpoints of "degree of damage," "job creation effect and revitalization of regional economy through promotion of the project," and "synergistic effect of greenhouse gas reduction, biodiversity conservation, preservation of national land and watershed protection, etc." The company selected eight projects, of which seven were projects to increase the absorption of CO_2 by conducting maintenance of forests, and the remaining one was a wide-area project to sort out rubble to use it as wood-based biomass fuel.

The company's planned amounts of absorption and reduction of CO_2 through these projects is estimated to be about 5,000 t, which is the largest in Japan.

In addition, Nipponkoa Insurance manages forests as a sustainable resource and conducts forest management activities by establishing "Nipponkoa's forest" with the aim of cultivating people who care about nature.



NPO Enemira: Energy no Mirai wo Kangaeru kai (Caring for the future of energy) in Okayama

6-7, Minamigata 1-chome, Kita-ku, Okayama City, Okayama 700-0807

Tel: +81-86-232-0363

URL: http://enemira.milkcafe.jp

Promotion of global warming prevention by establishing communal power generation stations, etc.

Enemira has been conducting activities for preventing global warming from the citizens' standpoint since 2000, and has pursued the expansion of the introduction of natural energy sources by supporting the establishment of communal solar PV power generation stations and the introduction of pellet stoves and solar-powered water heaters, and conducting research on small hydroelectric generation. In addition, Enemira conducts dissemination and education activities such as supporting the shift of security lighting set up by neighborhood associations and store lighting to energy-saving ones; visiting lectures at elementary schools; dispatching instructors to visiting lectures; and planning natural energy schools, eco-tours, lectures, and environment events.

As for communal power generation stations, Enemira and Okayama City have jointly been installing solar PV power generation systems and solar-powered water heaters to municipal nursery schools successively since 2002 (the fifth system is scheduled to be set up this year) by utilizing donations etc. raised widely from citizens. These power generation systems and solar-powered water heaters are also used for dissemination and education activities for children, etc.

Enemira will strive to expand these pioneering activities for setting up communal power generation stations to public facilities in cooperation with municipalities.

Miai-Onsen Village-Miaikan

1, Katsuura, Manno-cho, Nakatado-gun, Kagawa 766-0204
Tel: +81-877-84-2001
URL: http://www.miaikan.co.jp/

Challenge to create eco-friendly onsen (hot spring)

Village-Miaikan has developed and introduced boilers that can use timber from forest thinning, generated by thinning of regional mountain forests, without processing it. In addition, it has established a system of using waste heat of thinned wood boilers after conducting study of drying techniques, which has enabled a significant reduction in CO_2 compared with the use of heavy fuel oil boilers.
Village-Miaikan is expanding circles of activities to regions and actively working on the effective use of unused timber from forest thinning, development of resources recycling system, recovery of waste edible oil to turn it into bio diesel fuel, and dissemination and education through events. In addition, it is collaborating with the Manno-cho Biomass Town Initiative.
Moreover, Village-Miaikan now has the capacity to provide work-study programs such as making firewood and doing woodwork by using thinned wood, and new environment study programs mainly for kids.



Yamato Transport Co., Ltd.
16-10, Ginza 2-chome, Chuo-ku, Tokyo 104-8125
Tel: +81-3-3541-3411
URL: eco@kuronekoyamato.co.jp

Promotion of environment conservation activity with Necology as the keyword

Yamato Transport operates business using about 44,000 vehicles nationwide and considers it one of its important tasks to work on environment protection. Therefore, it has been promoting various environment protection activities. Seeing the rise of environmental awareness among citizens, the company thought that it should hereafter work in cooperation with those citizens to pursue activities that it had been conducting individually. The company termed the philosophical guidelines as “Necology.”
With “Necology” as the keyword, Yamato Transport is striving to make various transportation-related efforts mainly for packing, carrying, and delivery to establish eco-friendly logistics system. In order to realize the wishes of customers for environment protection every time they use Yamato Transport, it will continue to create environment-friendly services.

Yashio Mill of Rengo Co., Ltd.
330, Nishibukuro, Yashio City, Saitama 340-0833
Tel: +81-48-922-1131
URL: http://www.rengo.co.jp

A global warming measures project conducted by the "fuel economy Yashio" team—global warming prevention activity by changing the awareness of employees and establishing a global warming prevention system

With "Less Weight, Less Carbon" as its slogan, Rengo is making company-wide efforts for promoting the "Less Weight, Less Carbon project" that will contribute to global warming prevention and the formation of a recycle-based society by developing and disseminating packages with less weight and less CO_2 emissions.
As part of efforts for this project, Yashio Plant has promoted global warming prevention measures through the introduction of large energy-saving facilities. Concurrently with this, the plant has established "Fuel Efficient Yashio," a small group activity team that actively promotes global warming prevention measures by setting up a system for changing the employees' awareness and combating global warming and by aiming to reduce CO_2 further through the implementation of finely tuned energy-saving measures.
In addition, the plant has developed a system for regularizing proposals for and assessment of global warming prevention measures and soliciting various ideas about themes of efforts against global warming from all divisions and employees to be evaluated and implemented.
As a result of the abovementioned activities, Rengo's Yashio Plant has cut down on CO_2 emissions by 1,347 t/y and achieved energy saving, which has led to cost reduction of 35.56 million yen/y.

4. Category of Implementation of Countermeasures

UNESCO school team of Akita Municipal Akita Commercial High School
1-1, Araya Katsuhiradai Akita City, Akita 010-1603
Tel: +81-18-823-4308
URL: http://akisho.ed.jp/

Enlightenment activity by offering classes targeting elementary and junior high school students and citizens and by publishing books

UNESCO school team of Akita Municipal Akita Commercial High School is conducting various activities as an attempt to use plants and recycle resources for global warming protection, and the team continuously holds lectures and workshops on global warming issues targeting elementary and junior high school students, as well as general citizens, with members of the UNESCO school team serving as lecturers.
The UNESCO school team has also published “Introduction to Global Warming Issues for High School Students” (ARTE), a book summarizing activities of the team. This book contains “the overview of global environmental issues,” which is a partial translation of “the fourth Global Environment Outlook Report,” published by the United Nations Environment Programme (UNEP). It also includes articles on global warming prevention efforts of UN agencies and environmentalists, the Earth Charter, and students’ opinions, and is made available at many public libraries. In this way, the UNESCO School team has realized enlightenment activities with ripple effects to prevent global warming.

Kiyotaka Okada (Director of NPO, Nanohana Project Network)

Section in charge of Nanohana at the Secretariat of “Awaji Nanohana Eco Project Promotion Council” serves as contact for requesting inspection, etc.

Environment Division of Hyogo Prefectural Government Awaji Administration Office

Tel: +81-799-26-2072

URL: http://web.pref.hyogo.jp/area/awaji/cate1_1.html

Global warming prevention activity with a focus on the Awaji Nanohana Eco Project

Kiyotaka Okada plays the central role in dissemination and education on global warming prevention and environmental education for citizens as chairman of Awaji Nanohana Eco Project Promotion Council, environment counselor for Ministry of the Environment, representative of the Awaji Region Global Warming Prevention Activities Promotion Liaison Committee, national organizer and director of Kansai bureau of Recycle Soap Association, recycle soap technical advisor, and member of Hyogo Prefecture Awaji Regional Vision Committee (Prefectural Citizens’ Sports and Environment Division: 2003-2006). Mr. Okada gives guidance, proposals, and information not only to the general citizens but also to the prefectural and municipal governments, in an effort to prevent global warming. In particular, Mr. Okada is aiming to establish independence of food and energy with a focus on nanohana (field mustard), and is working to develop a regional model of a resource recycle-based society across Awaji Island.

In the “Eco Inspection Tour 2012 in Germany,” Mr. Okada conducted a study of the community, which received the Bio Energy Grand Prize, which is given to advanced regions that have achieved 100% self-sufficiency in renewable energy. Based on what he has learned from the community, he is considering implementing a renewable energy strategy in hilly and mountainous areas in Japan including areas afflicted by the nuclear power plant accident in Fukushima in the wake of the March 2011 earthquake and tsunami.

Natane Go-cart
The first go-cart that runs on 100% BDF made from waste edible oil
Event that includes global warming prevention activity

Scything of rapeseed,
part of the environmental study for elementary school students

Mowing rapeseed with a 100 percent biodiesel-fuelled combine

Takasaki Municipal Maniwa Elementary School

1033-1, Maniwa, Yoshii-machi, Takasaki City, Gunma 370-2104

Tel: +81-27-388-3201

URL: http://swa.city.takasaki.gunma.jp/maniwa_sho/

Maniwa Elementary School's project for global warming prevention

With the aim of encouraging students to acquire abilities to consider from various perspectives, make decisions on, and implement environment-friendly lifestyles, Maniwa Elementary School provides education on three themes: greening, energy conservation, and new energy. In the study of greening, students in each grade level and committee members grow vegetables and flowers, as well as make green curtains. In the study of energy conservation, students consider eco activities for each class and practice them, and all the students in the school and their parents work cooperatively in the "global warming prevention brigade," an energy-saving initiative. In addition, they have created and implemented energy-saving catchphrases and the Energy Conservation Declaration of Maniwa Elementary School. They also collect PET bottle caps and aluminum cans. Through such efforts, the school is raising energy-saving awareness and enhancing abilities to practice energy conservation. In the study of new energy, students have created a model of a future town using photovoltaic cells, conducted power generation experiments by using difference in temperature, and invited a lecturer to study radioactivity. In addition, the students grow flowers to give them to local nursing-care facilities, nursery schools, community centers, etc., as part of efforts for establishing ties with the local community and the school makes a presentation at the municipal environmental activities reporting meeting to transmit information on the school's global warming prevention activities.

NPO Environment Conservation Association Aizu
6-18, Nanokamachi Aizuwakamatsu City, Fukushima 965-0044
Tel: +81-242-22-4664
URL: http://eca-npo.org

Experimental environmental education for global warming prevention and raising awareness toward introduction of natural energy

Environment Conservation Association Aizu conducts visiting experiential classes for schools, community centers, groups and companies, etc., by using training lectures, provided by experienced environmental education instructors, and original education materials, and continuously works on environmental education and dissemination and enlightenment by holding lectures, environmental tours, and exhibition events. The organization also cooperates and collaborates with administrative agencies and other organizations and groups to further promote environmental education and enlightenment activities.
The organization takes the needs of local communities and conducts activities such as field surveys and workshops of small hydroelectric generation to introduce natural energy aimed at development of the region.
The organization has also published “Reader for Helping Children and their Families Learn about the Environment” and “Collection of Know-how of Environmental Education based on Experiences,” and it will distribute “Let’s join in and make Aizu Eco Karuta,” which will be completed soon, in an effort to promote eco-friendly practices, disseminate information, and enlighten people.


Family natural energy tour


Visiting class at an elementary school

NPO Kyushu Biomass Forum
5816, Miyaji, Ichinomiyamachi, Aso City, Kumamoto 869-2612
Tel: +81-967-22-1013
URL: http://kbf.sub.jp/

Project for creating graduation certifications from Japanese pampas grass growing on the grasslands in Aso

While the grasslands in Aso have gained attention as carbon sink, their maintenance and management on a continual basis has become a problem. Given this, the Kyushu Biomass Forum is providing experiential activities for children in the region for playing in the grasslands, studying about grassland, and obtaining techniques to use and manage grassland, with the aim of cultivating people in the region to conduct maintenance and management activities for the grasslands.
In addition, the Kyushu Biomass Forum conducts a project for creating graduation certifications from Japanese pampas grass growing in the grasslands in Aso, mainly targeting elementary school and junior high school students and kindergarteners. In this project, the forum and participating children produce pulp from Japanese silver grass reaped from the Aso grasslands and make handmade wild-grass paper to create a memorable graduation certificate. The purpose of the project is to have the grasslands firmly imprinted on one page of children's lives. These activities have not only contributed to the revitalization of the connection between children and the grasslands but also created connections between teachers, administrative staff, and local people including the staff of Makino Association, which takes charge of conservation of grasslands in the region, which has led to the development of a loose network in the region.

Hye-suk Pak (Director and Executive Vice President of Mie University)
Mie University, 1577, Kurimamachiya-cho, Tsu City, Mie 514-8507

"Practical environmental education," learning from Yokkaichi Pollution and helping prevent global warming and "Mie zero grocery bag campaign," a low carbon society demonstration activity developed by the people of Mie Prefecture

Since she took the position at Mie University in April 1995, Hye-suk Pak has established "Yokkaichigaku" for cultivating environment-minded human resources who will contribute to global warming prevention and environment improvement in Asian countries on the theme of "learning from Yokkaichi Pollution." For 17 years since then, Ms. Pak has continuously been conducting practical environmental education and environmental activities. In particular, Ms. Pak has been engaged in "Mie zero grocery bag campaign," a low-carbon society experimental activity, which was driven by the movement among people in Mie Prefecture. Through cooperative efforts of prefectural citizens, business operators, and administrative offices in all the 29 cities and towns in Mie, the campaign has significantly contributed to the reduction of grocery bags by 85–90% and a cut in annual CO_2 by about 0.5% in the prefecture. This "Mie-method" activity for reducing grocery bags has been spread to Tokai, Kyushu, and Shikoku regions. Ms. Pak has also been cultivating environmentally and internationally minded human resources by offering practical environmental education through international environmental networks with other Asian nations, and making efforts for environmental improvement of Asian countries, where environmental problems have become the foremost concern with economic growth. In addition, Ms. Pak serves as the Director of Mie Global Warming Prevention Activity Promotion Center and the Ministry of Environment's 3R Promotion Meister.

Lecture on "Mie zero grocery bag campaign"
Date: Tuesday, December 2, 2008
Place: Kumamoto City
"Symposium on recycle-based community development starting with environment-friendly shopping"

"International environmental education" (COP10 in Mie) Asia-Pacific International Environmental Forum
Date: Monday, October 18, 2010

Hadano Municipal Higashi Junior High School

509, Terayama, Hadano City, Kanagawa 257-0011

Tel: +81-463-81-0082

URL: http://www.city.hadano.kanagawa.jp/hig-chu/index.html

Energy environmental education for cultivating children who value the earth and take action at their own initiative

With the aim of cultivating students who can take energy-saving action and environment-preventive action at their own initiative, Higashi Junior High School is encouraging its students to acquire correct knowledge and views about energy and global warming through study of subjects, notably of science, with a focus on energy and global warming issues, and through visiting lectures by outside lecturers and visits to relevant facilities.
Based on the knowledge acquired through such activities, the school, under the leadership of the students' council, collects resources and PET bottle caps, as well as conducting other activities such as calling for energy conservation, collecting milk cartons, collecting waste paper, and sending information through articles in the school newspaper. In addition, students actively conduct activities by each grade level.
The school also participates in the satochi satoyama (rural landscapes) conservation project of the Hadano municipal government aimed at greening the region, and conducts management of bamboo forests and planting and harvesting rice.

Resource recovery

Satochi satoyama conservation project
(rice planting)

Energy education (device efficiency)

Energy education
(measuring standby electricity)

Kurashi Working Group, Citizen's Environmental Council of Higashi Kurume City
3-1, Hon-cho 3-chome, Higashikurume City, Tokyo 203-8555
Tel: +81-42-470-7753
URL: http://www.city.higashikurume.lg.jp/

Global warming prevention through development of a low-carbon emission town

Higashi-Kurume City has set "conserving the environment of our community by ourselves" as the basic philosophy for creating a low-carbon community. To help create a "community with clean air, water, and greenery," which is enshrined in the Higashikurume City Charter, the Kurashi Working Group of Citizen's Environmental Council of Higashikurume City has been working to prevent global warming through the following energy-saving and resource-saving activities: promoting local production for local consumption and developing a food mileage map, introducing an "environment calendar" that helps individual households convert their energy conservation efforts into number to stimulate energy saving in the household and conducting a test run of small hydroelectric generation system that generates power from spring water.
In conducting such energy-saving and resource-saving activities, the working group has had people from three generations engage in activities to ensure sustainability and the possibility of development of activities and has cooperated with regional action groups and schools and agricultural associations to conduct social and regional activities. The working group has made efforts for widely educating and enlightening citizens through cooperative activities with important environment improvement projects of the local government. It will expand the circle of activities from neighboring cities to the Tama area in Tokyo to conduct activities to help prevent global warming and conserve energy and resources, as well as cultivate human resources who will become leaders in the future.

Natural spring water small hydroelectric power generation

Fukuyama Municipal Asahi Elementary School

2-1, Irifune-cho 1-chome, Fukuyama City, Hiroshima 720-0801
Tel: +81-84-923-0742
URL: http://www.edu.city.fukuyama.hiroshima.jp/shou-asahi/

Energy-saving project of the Asahi Eco Challenge Squad

In order to help children, who will be leaders in the next generation, develop abilities for conducting activities relating to responsible choice and conservation and creation of the environment, Asahi Elementary School is cultivating students' ability to discover and solve problems, and learn the knowledge and skills, through environmental study, which only school can offer. The school is also developing students' ability to examine from various perspectives, create a comfortable living environment, and take the leadership in a region in the future. Asahi Elementary School is trying to foster adults who notice changes in their immediate environment, understand the finite nature of resources and natural environmental changes, and have minds for working together to bring harmony between people and nature.
The school mainly works to increase understanding and encourage the practice of energy-saving activities at school, and has set up energy-saving navigation, which is a power monitoring system, to record and transmit energy-saving data. In addition, the school has held visiting lectures by inviting global warming prevention activity promoting members, creating green curtains around school buildings, which are exposed to direct sunlight; placing "energy-saving" and "water-saving" stickers; and using eco-challenge diaries. Through such measures, Asahi Elementary School is actively promoting sustainable environmental education with a focus on cutting CO_2 emissions and energy education.

Turn off the lights when not in use to save valuable electricity

Tatsuo Yamamoto
19-10, Tokukura 2-chome, Mishima City, Shizuoka 411-0044
Tel: +81-55-986-8200

Dissemination and public awareness activity for assimilating advanced technologies that help prevent global warming into life

While in school, Tatsuo Yamamoto studied about a “heat pump that increases one unit of energy by many times (refrigerating engineering),” and worked in a company where he was able to use the technology. After retiring from the company, Yamamoto, in 1999, started to work actively using cutting-edge technologies and experiences acquired at work for preventing global warming.
In the lectures he gives for companies and business people, Yamamoto explains the importance of environmental education and energy-saving products and the necessity to expand environmentally conscious products. In addition, Yamamoto devotes his efforts to environmental education for children, who will be leaders in the next generation, and he energetically offers courses and lecturers, experiential study, workshops, etc., to realize CO_2 reduction and a low-carbon society.
With the motto, “You cannot make eco activities last long by quota, obligation, reprimand, and patience. Rather, let’s achieve energy-saving cheerfully, happily, and with family communication,” he is working to increase supporters who sympathize with the motto. He also works to advertise and promote administrative measures for global warming prevention by serving as Shizuoka Prefecture Global Warming Prevention Activity Promotion Officer, Shizuoka Prefecture Environmental Study Advisor, Mishima City Stop Global Warming Promotion Officer and regional eco leader, etc.

Reference

The List of Past Award Winners

1998	
Low-emission Vehicle	Tokyo Gas Co, Ltd.
	Co-op Kobe
	Odawara City, Kanagawa Prefecture
	Osaka Gas Co., Ltd.
Recycling	Meiko Shokai Co., Ltd.
	Fuji Xerox Co., Ltd.
	Tokushima Consumer Association
	Yono City, Saitama Prefecture
	Exterior Building Materials Business Group of Panasonic Electric Works Co., Ltd.
	Port Transportation Business Association of Port of Tokyo
	Sumida Recycling Group
	Crystalclay Co., Ltd.
Practice of Global Warming Prevention Activity	Odawara Business Office of Konica Corporation
	Nishi-Nippon Railroad Co., Ltd.
	TOHO GAS Co., Ltd.
	Kitakyushu Citizens' Association for Combating Global Warming
	Kumamoto City, Kumamoto Prefecture
Environmental Education/ Dissemination and Enlightenment	Itabashi-ku, Tokyo
	Toyonaka Citizens' Environmental Council
	Kyoto Prefectural Tanabe High School
	Hiratsuka City, Kanagawa Prefecture
	Tokyo Metropolitan Engei High School
International Contribution	The General Environmental Technos Co., Ltd.
	Yokohama Municipal Urashimaoka Junior High School
	Well Company
Academic Research	Taisei Corporation's Civil Engineering Research Institute
1999	
Low-emission Vehicle	Hokuriku Electric Power Company Engineering Research & Development Center
	Takeoka Jidosha Kogei
	TOHO GAS Co., Ltd.
Recycling	Panasonic Kibi Co., Ltd.
	NKK Corporation
	Co-op Miyazaki
	ACT53 Sendai
	Minamata City, Kumamoto Prefecture
Practice of Global Warming Prevention Activity	Mycal Corporation and Logistics Partnership Task Force
	Saitama Prefecture
	CO_2 reduction G Konahama
	Taiheiyo Cement Corporation
	Kawagoe City
Environmental Education/ Dissemination and Enlightenment	Japanese Consumers' Cooperative Union
	Sendai Municipal Ashiguchi Elementary School
	Hyogo Environmental Advancement Association
	Kanagawa eco-life activity group
	EFF21
	Kodomo eco club nijikko kankyo chosa tai
International Contribution	Hamada City International Exchange Association
	Love Green Association
	International Mangrove Ecosystem Association

2000	
Low-emission Vehicle	Kobe Eco Car
Recycling	Kawaguchi City, Saitama Prefecture
	Sapporo Breweries Ltd. Saitama Plant
	Fujifilm Corporation Ashikaga Plant
	Kanagawa gyunyu pack no sairiyou wo susumeru rennrakukai
	Environment-friendly Product Evaluation Committee
	Aitocho, Shiga Prefecture
Practice of Global Warming Prevention Activity	Ehokucho Commerce and Industry Association of Saga Prefecture and Zero Emission Promotion Plan Business Committee
	Soft Energy Project
	Toyota City My Grocery Bag Campaign (Eco-life) Promotion Council
	Eco Industry Project Study Group
	Tomamae-cho, Hokkaido, Sabae City, Fukui Prefecture
Environmental Education/ Dissemination and Enlightenment	Kumamoto Midori no Zaidan
International Contribution	Tokushima Nepal Friendship Society
	International Kudzu Green Operation Sannan
	Himalayan Green Club
2001	
Low-emission Vehicle	Kita-ku, Tokyo
Recycling	Hachinohe Eco Recycle Council
	NEC Saitama, Ltd.
	Yonago-chiku kankyo mondai wo kangaeru kigyou kondankai
	NPO Chubu Recycle Movement Citizens' Group
Practice of Global Warming Prevention Activity	Ichikawa Earth Citizens' Group
	NPO Hokkaido Green Fund
	Iida City, Nagano Prefecture
	Tachikawa-cho, Yamagata Prefecture
	Hyogo Prefecture
	Wakayama Prefectural Kihoku Technical High School Production Technology Dept.
Environmental Education/ Dissemination and Enlightenment	Kumamoto Prefectural Environmental Conservation Council
International Contribution	Tohoku Electric Power Company Overseas Division Project Team
2002	
Technological Development and Commercialization	Zenkoku Tomo no kai
Countermeasure Technology Introduction and Dissemination	Yatsugatake Environmental Countermeasures Council
	Sapporo City Seafood Product Cooperative Wholesaling Society Sapporo Fruit and Vegetable Cooperative Wholesaling Society
	Tohoku Epson Corp.
	Sagawa Express Co., Ltd.
	Ishii Kazuhiro Kenchiku Kenkyusho
Implementation of Countermeasures	Nagai Municipal Toyota Elementary School
	Katei no kankyo kanri kansa nin kyokai
	Daizawa-chiku eco life jissen katsudo suishin iinkai
	Kyo no Agenda 21 Forum
	Takara Shuzo Co., Ltd.
Environmental Education	Ecotruck Co., Ltd.
	Tochigi Prefectural Utsunomiya Technical High School
	Wakayama Prefectural High School Education Study Group Technical Dept. EV ENJOY TRIAL Executive Committee
Academic	Takakiyo Nakazawa (Graduate School of Science, Tohoku University, Center for Atmospheric and Oceanic Studies)

2003	
Technological Development and Commercialization	Toyota Motor Corporation
	Panasonic Corporation
	DENSO Corporation
	Daikin Industries, Ltd. Air-conditioning Division, Store System Group and Development Confidence Group
	Kaneka Corporation
Countermeasure Technology Introduction and Dissemination	EcoPower Co., Ltd.
	The Hotel New Otani Group
	Tokyo Toshi Service
	Central Japan Railway Company
	Fuji City Fuji Chamber of Commerce and Industry
Implementation of Countermeasures	Aim Services Co., Ltd.
	Kawaguchi City Citizens' Environment Council
	Futami-cho (Mie Prefecture)
	Chiiki gurumi kankyo ISO kenkyukai
	Co-op Osaka Pal Coop
Environmental Education	Bisai Kindergarten
	Nagano Prefectural Nagano Technical High School Environmental System Group
	Sompo Japan Insurance Inc., Sompo Japan Environmental Foundation
International Contribution	Chugoku Dojinkan
2004	
Technological Development and Commercialization	Misawa Environment Technology Co., Ltd.
	Mazda Motor Corporation
	Prince Electronics Co., Ltd. and Iwasa Prince Electronics Co., Ltd.
	Canon Inc.
	Teijin Fibers Limited
	Nakajima Jidosha Denso K.K.
	Tateyama Aluminium Industry Co., Ltd.
Countermeasure Technology Introduction and Dissemination	Kyoto City Bio Diesel Fuel Conversion Business Technology Study Group
	YUKIDARUMA Foundation
	GEO Power System Co., Ltd.
	Takaaki Ikeda
	Nissan Shatai Co., Ltd.
	Sweden House Co., Ltd.
	Mitsubishi Estate Co., Ltd.
	Numata-cho Town Office
	Sayo Automobile Service Factory
Implementation of Countermeasures	Water Sprinkling Operations Headquarters
	Shinoyama City Global Warming Prevention Activity Promotion Network
	Tachikawa-cho kankyo machizukuri suishin network (Tachikawa-cho Global Warming Measures Regional Council)
	Tottori Prefectural Yonago Minami High School
	Kesennuma-chiku Energy kondankai
	Asahi Kasei Homes Co., Ltd. Eco Elephant Club Project
	Lawson, Inc. and National Land Afforestation Promotion Organization
	Tokyo Electric Power Company
	NPO Car Sharing Network
	Mijika na shoku de chikyu wo samase! Campaign
	Tokyo Gas Co., Ltd.
	NPO Environment Counselor Group Hyogo
	Tokyo Itabashi-ku Dainana Elementary School
	Tatsuro Nakajima

Environmental Education	Nerima-ku Takamatsu Elementary School
	Asaba Junior High School Association Asaba Junior High School
	Shiino Gakuen Yonezawa-Chuo High School
	NPO Clean Energy Alliance
	NPO Weather Caster Network
	Shizuoka Prefectural Iwata Prefecture Agricultural High School
	Nagoya Municipal Tatsuta Hikari Junior High School
	Shizuoka Prefectural Shizuoka Prefecture Agricultural High School
2005	
Technological Development and Commercialization	Osaka Gas Co., Ltd., Toho Gas Co., Ltd., Seibu Gas Co., Ltd., Honda Motor Co., Ltd., Noritz Corporation, CHOFU SEISAKUSHO Co., Ltd.
	Izawa Electronics Industry Inc.
	The Nippon Oil Corporation
	Asahi Kasei Homes Co., Ltd.
Countermeasure Technology Introduction and Dissemination	Healthcare Corporation Keijinkai Kaigo Rojin Hoken Shisetsu At-home Kuzumaki
	Sekisui Chemical Co., Ltd.
	Kansai Electric Power Company, Kanden Real Estate Co., Ltd., Kanden Energy Development Co., Inc.
	Tokyo Gas Co., Ltd.
	Ichijo Co., Ltd.
Implementation of Countermeasures	NPO Chiiki Zukuri Kobo
	NASL Global Environmental Forum
	Panasonic Denko Kagawa
	Kansai Koiki Renkei Kyogikai
	Hitoyoshi/Kuma Nature Protection Association
	Hachijuni Bank, Ltd.
	NPO Shirakami Sanchi wo mamoru kai
	Otsu Environmental Forum
Environmental Education	Shiga Prefectural Hachiman Technical High School
	Sagawa Express Co., Ltd.
	Kawasaki Municipal Masukata Junior High School
	NPO Watt Kobe
	Matsushita Group “Chikyu wo Aisuru Shimin Katsudo” Promotion Committee
	Masaru Shiono
International Contribution	Asia no mori wo sodateru kai
2006	
Technological Development and Commercialization	Asahi Kasei Corporation, Asahi Chemical Co., Ltd., Asahi Kasei Engineering Corp.
	ITO EN, Ltd.
	Kimitsu Joint Thermal Power Co., Ltd.
	Nippon Steel Corporation Hirohata Works
	Tokyo Electric Power Company, Fuji Heavy Industries Ltd., NEC Lamillion Energy Co., Ltd.
	Thomas Gijutsu Kenkyusho Co., Ltd., Ryukyu Douryoku, Taiseidenki Seisakusho
	Hitachi Appliances, Inc.
	Hitachi, Ltd. Power Group Hitachi Business Office
Countermeasure Technology Introduction and Dissemination	Kahoku Area Eco Drive promotion Study Group
	Kansai Electric Power Company
	Kirin Brewery Company, Limited, Kobe Plant
	Kobe City
	Sekisui House Ltd.
	Tokyu Homes Corporation
	East Japan Railway Company
	Hitachi Planning and Development Systems Company Group

Implementation of Countermeasures	Osaka tomono kai
	Kanagawa Truck Association
	Tokyo Electric Power Company
	East Japan Railway Company
	Biwako Bank, Ltd.
	Motosumi Bremen-street Shopping District Promotion Association, Kawasaki Global Warming Measures Promotion Council
Environmental Education	Aichi Prefecture Takarameshi-gun Kosakai-cho Kosakai-Nishi Elementary School
	Chiemi Asano
	Aichi Prefectural Iyo Agricultural High School
	Omuta Municipal Meiji Elementary School
	C Kids Network
	Shimadzu Corporation E-co club
	Joso Municipal Kensei Elementary School
	Tokyo Gas Co., Ltd.
	Haruo Fujimoto
	Mie Prefectural Yokkaichi Nogei High School
	Miyazu Municipal Yura Elementary School
International Contribution	JBECK
2007	
Technological Development and Commercialization	NKK Co., Ltd.
	Osaka Gas Co., Ltd.
	Central Japan Railway Company, West Japan Railway Company
	Tokyo Electric Power Company, Hino Motors, Ltd., DENSO Corporation, Osaki Electric Co., Ltd.,
	TOSHIBA Lighting & Technology Corporation
	East Japan Railway Company
	Matsushita Electric Industrial Co., Ltd. Semiconductor Company, General-purpose Business Division, Discreet Business Unit
Countermeasure Technology Introduction and Dissemination	EARTH KAKEN Corporation
	Flat Glass Association of Japan
	Sharp Corporation AVC Liquid Crystal Business Division (Kameyama Plant)
	Sekisui House Ltd.
	Daiwa House Industry Co., Ltd.
	Nara Prefecture Waterworks Bureau
	Hoshino Resorts, Japan
Implementation of Countermeasures	NPO Eco Partner Tottori
	Seven-Eleven Green Fund
	Daichi wo mamoru kai
	NPO Tango no shizen wo mamoru kai
	Tokyo Metropolitan Truck Association
	Tono hinoki Product Distribution Cooperative Association
	Yamaman Co., Ltd., Yukarigaoka oyakono-hi Planning Committee

Environmental Education	Ishikawa Prefectural Daiseiji High School
	NPO Econet Joetsu
	Eco Messe in Chiba Planning Committee
	Koichi Kagami
	Yukiko Kobayashi
	Kyoto Municipal Sagano Elementary School
	Koshigaya Municipal Obukuro-Higashi Elementary School
	Kunihiko Sudo
	Tokyo Metropolitan Suginami Technical High School
	Tokyo Metropolitan Tsubasa Sogo Senior High School
	Nagoya Municipal Higashi-Sakura Elementary School
	Higashiomi Municipal Notogawa-Minami Elementary School
	Naoki Miyake
	Yamanashi Municipal Fuekgawa Junior High School
International Contribution	Kansai Electric Power Company
	Japan for Sustainability
	NPO Fukushima Midori no Kyoryoku-tai
2008	
Technological Development and Commercialization	Asahi Breweries, Ltd.
	Ushio Lighting, Inc.
	Takenaka Corporation
	Maekawa Mfg. Co., Ltd.
	Softbank IDC Corp.
	Hitachi Appliances, Inc.
	NEC Corporation
Countermeasure Technology Introduction and Dissemination	Kanagawa Electric Vehicle Dissemination Promotion Council
	Kanazawa City Central Wholesale Market
	Shiga Bank, Ltd.
	Himawari Co., Ltd.
	Yoshinoya Co., Ltd.
	Kirin Brewery Company, Limited, Fukuoka Plant
	Sugamo Ekimae Shopping District Promotion Association
	Co-op Net
	Nara Prefecture Waterworks Bureau
	Yamakin Industry Corporate Morita Plant
	Saku saku himawari, LLP
Implementation of Countermeasures	Okinawa Electric Power Company
	Kudo Construction Corporation
	Shinshu Energy-saving Patrol Brigade
	NPO Environmental Relations
	Industrial Network for Fluorocarbon Recovery Promotion
Environmental Education	Aichi Prefectural Matsuyama Technical High School
	School ISO “Sakuranbo Environmental ISO”
	Natural Farm City Farm Hotel
	Konan Municipal Noichi Elementary School
	The Seishin Shinkin Bank
	Isao Takeshige
	NPO Kishu-Econavito
	NPO Weather Caster Network
	Kanji Fujino
	Minoh Agenda 21
	Yoshie Yaguchi
International Contribution	NPO Tree Planting in Deserts Nagoya Japan
	NPO Japan-China Tree-planting for Environmental Conservation

2009	
Technological Development and Commercialization	Kawasaki Heavy Industries, Ltd.
	Kansai Electric Power Company
	Fujitsu Limited
Countermeasure Technology Introduction and Dissemination	SRI-Hybrid Co., Ltd. Kakogawa Plant
	Elpida Memory, Inc. Hiroshima Plant
	Sanyo Homes Corporation
	Daiwa House Industry Co., Ltd.
	Nasunogahara Tochi Kairyoku Rengo
Implementation of Countermeasures	Lawson, Inc.
	The University of Shiga Prefecture Environment Management Office
	Shibaura Tokki
	Sho Unyu, Inc.
Environmental Education	Akio Ishida
	Kurukuru kenkyukai
	Shizuka Kurotani
	Shinjo Municipal Numata Elementary School
	Sendai Municipal Kita-Rokubancho Elementary School, Taito Environment Promotion Net Environment Study Group
	Tamura Municipal Yamane Elementary School
	Tokyo Electric Power Company
	Tokushima Prefectural Sadamitsu Technical High School
	NPO Ecology Action Sakuragaoka no Kai
	Nerima-ku Fujimidai Elementary School
	Hadano Municipal Shibusawa Elementary School
	Hikona-chiku Chibikko Environment Patrol Brigade
	Hiroshima Prefecture Fukuyama Municipal Ekiya Nishi Elementary School
	Fukui City Environment Partnership Council
	Hokkaido Sapporo Moiwa High School
	Wakkanai Alternative and Renewable Energy Group
International Contribution	International Center for Environmental Technology Transfer
2010	
Technological Development and Commercialization	Bridgestone New Business Development Division
	KYOCERA Corporation
	Kobelco Construction Machinery Co., Ltd.
	Taisei Corporation, TOKO Inc.
	Nihon Funen Co., Ltd.
Countermeasure Technology Introduction and Dissemination	Osaka Prefecture Waterworks Bureau
	Komatsu Ltd. Oyama Plant
	Miyakoda Kensetsu
	Japan Advanced Institute of Science and Technology, Fujitsu Limited.
	Fujitsu Limited
Implementation of Countermeasures	Earth Conscious Matsudo
	SUPER HOTEL, Inc.
	MARUHAN Corporation
	Seino Transportation NPO Network, Gifu Eco Life Promotion Project Planning Committee
	Tokyo Electric Power Company, Kawasaki Steam Net Ltd.
	NPO Sorabear Fund
	Yugawara-cho Greenhouse Gas Reduction Project Team

Environmental Education	Ecozzeria
	Koriyama Kaisei Gakuen
	Kanagawa Prefectural Aihara High School Agriculture Club Livestock Science Group
	S-Pulse
	Kumamoto Municipal Shimizu Elementary School
	Amagasaki Municipal Seiryo Junior High School
	Fukuyama Municipal Utsumi Elementary School
	Satoko Fujimoto
International Contribution	Kyoto Prefectural Kitakuwada High School
2011	
Technological Development and Commercialization	Suntory Business Expert Limited
	Toshiba Tec Corporation
	Kobe Steel, Ltd.
	Fuji Xerox Co., Ltd. Ebina Business Office
Countermeasure Technology Introduction and Dissemination	Ajinomoto Co., Inc. Kawasaki Business Office Jun Kobo
	EV Honda
	Iida City, Ii-chiiki jiba sangyo shinko center, Iida Business Network Support Center
	Kumamoto Prefectural Aso Seiho High School Biological Science Department
	Hokuto City, Yamanashi Prefecture
Implementation of Countermeasures	Nipponkoa Insurance Co., Ltd.
	Shiomichi Community Association “Shiomichi Eco Movement Promotion Group”
	KYOCERA Corporation Shiga Gamo Plant/Yokamachi Plant
Environmental Education	Yuichi Watanabe
	Hyogo Prefectural Sasayama Shinonome High School
	Shizuoka Prefectural Fugakukan High School
	Omaezaki Municipal Hospital
	Daisen Municipal Omagari Minami Junior High School
	Mine Kindergarten
	Teruo Shimizu
	Fukuyama Municipal Asahigaoka Elementary School