Results of the Fiscal 2006 Follow-up
to the Keidanren Voluntary Action Plan on the Environment (Summary)
—Section on Global Warming Measures—
< Performance in Fiscal 2005 >

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Nippon Keidanren (Japan Business Federation)

Contents

1. CO_2 emissions in fiscal 2005 by industry as a whole (comprising the industrial and energy-conversion sectors)

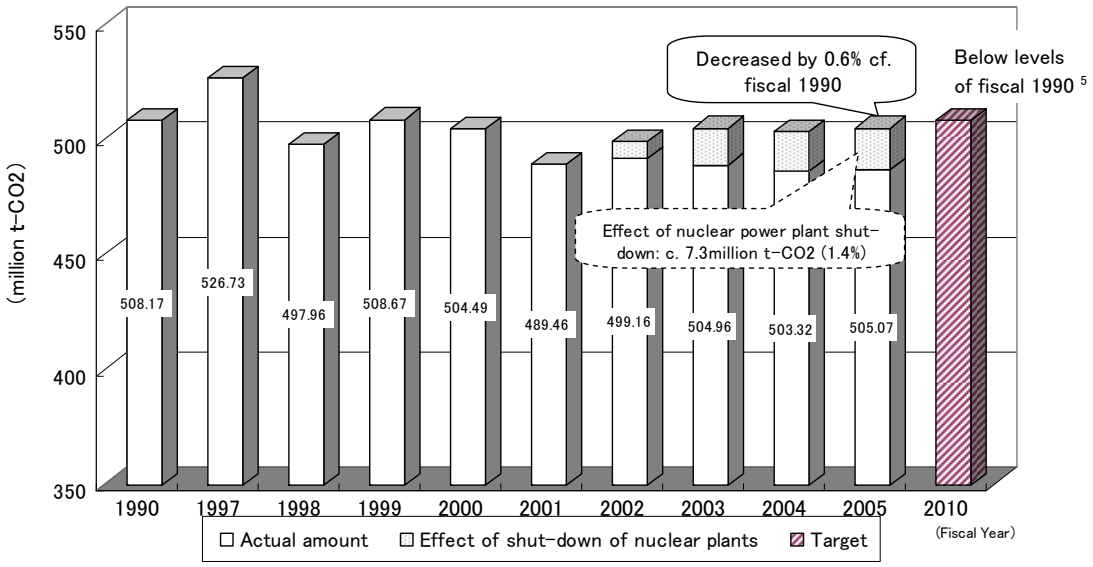
Under the philosophy that "positive involvement in environmental issues is essential to the survival of companies as well as their activities," Nippon Keidanren declared prior to the adoption of the Kyoto Protocol that it will "endeavor to reduce CO_2 emissions from the industrial and energy-conversion sectors in fiscal 2010 to below the levels of fiscal 1990." Since then, participating industries and companies have continued to strive to achieve this target.

The 35 industries[1] in the industrial and energy-conversion sectors that participated in the Fiscal 2006 Follow-up together emitted 508.17 million t-CO_2[2] in fiscal 1990, the base year. This accounts for approximately 44.0% of Japan's total emissions of 1,144.13 million t-CO_2 for that year. Moreover, the emissions of the 35 industries represented approximately 83% of the total amount of CO_2 emitted by the country's industrial and energy-conversion sectors in fiscal 1990 (612.70 million t-CO_2[3]).

Results of the Fiscal 2006 Follow-up indicate that CO_2 emissions in fiscal 2005 were 505.07 million t-CO_2, representing a 0.6% decrease compared to fiscal 1990 and a 0.3% increase compared to fiscal 2004, making this the sixth consecutive year since fiscal 2000 that the target has been achieved.

If the effect of the worsening of the CO_2 emission intensity of electricity resulting from the long-term shut-down of some nuclear power plants is excluded, CO_2 emissions in fiscal 2005 can be estimated at approximately 497.80 million t-CO_2, a decrease of around 2.0% compared to fiscal 1990.

CO_2 Emissions by 35 Industries in the Industrial and Energy-Conversion Sectors[4]



2. Trends by industry

Of the 35 industries in the industrial and energy-conversion sectors that participated in the Fiscal 2006 Follow-up, 17 reported declines in CO_2 emissions compared to fiscal 1990, while 16 reported declines compared to fiscal 2004.

Of the 13 industries that defined their goals in terms of reductions of CO_2 emissions, 8 reported reductions compared to fiscal 1990 and 8 reported reductions compared to fiscal 2004[6].

Four of the 5 industries that defined their goals in terms of reduction of energy consumption reported reductions compared to fiscal 1990; 3 industries reported reductions compared to fiscal 2004[6].

Of the 20 industries that defined their goals in terms of either CO_2 emission intensity or energy consumption intensity, 14 reported improvements in their indices compared to fiscal 1990, and 12 of these industries also showed improvements in these indices compared to fiscal 2004 (see Attachment 1)[6].

3. Evaluation of Voluntary Action Plan measures

(1) Reasons for the variations in CO_2 emissions in the industrial and energy-conversion sectors

An analysis of the reasons for the 0.6% decrease in CO_2 emissions by the 35 industries in fiscal 2005 compared to fiscal 1990 is provided in the table below. Production activities increased by 10.1% and the CO_2 emission coefficient increased by 0.2%. However, the effect of the 10.9% reduction in emissions per unit of production more than compensated for the upward pressure on emissions. This indicates that due to the success of energy-saving and other CO_2 emission reduction measures by the industries and companies the Voluntary Action Plan is producing steady results.

An analysis of factors compared to fiscal 2004 shows that the participating industries and companies further reduced CO_2 emissions per unit of production in fiscal 2005, but overall CO_2 emissions in the industrial and energy-conversion sectors increased by 0.3% over the previous year due to an increase in production resulting from Japan's economic recovery.

	Cf. fiscal 1990	Cf. fiscal 2004
Change in production*[1]	+10.1%	+1.7%
Change in CO_2 emissions per production	- 10.9%	-1.5%
Change in CO_2 coefficient*[2]	+0.2%	+0.1%
Total	-0.6%	+0.3%

*[1] For change in production, the indices with the closest relation to energy consumption in each industry were selected. The changes in production of the 35 participating industries in the industrial and energy-conversion sectors are weighted averages applying the indices of each industry to CO_2 emissions.

*[2] CO_2/MJ for fuel use; CO_2/kWh for electricity consumption

<The effect of the shut-down of some nuclear power plants>

In fiscal 2005 some nuclear power plants remained shut down, and through the effect of using thermal power generation to compensate for the amount of electricity generation lost as a result and maintain a stable supply of electricity, the CO_2 emission intensity worsened.

If calculations were made using the CO_2 emission intensity for electricity premised on there being no effect of long-term nuclear power shutdowns, based on estimates of the Federation of Electric Power Companies (3.53 t-CO_2/10,000 kWh for all electricity sources at electricity generating ends), CO_2 emissions of the 35 participating industries would decrease by about 7.30 million t-CO_2 (approximately 1.4%).

(2) Calculations for the achievement of targets in fiscal 2010

Calculations based on estimates by 7 industry groups (Federation of Electricity Power Companies, Petroleum Association of Japan, Japan Iron and Steel Federation, Japan Chemical Industry Association, Japan Paper Association, Japan Cement Association, 4 electrical/electronics-related groups), which account for 90% of the total CO_2 emissions by the industries in the industrial and energy-conversion sectors, found the forecasted CO_2 emissions in 2010 of the 35 industries in the industrial and energy-conversion sectors to be 2.2% below the fiscal 1990 level.

By continuing to strengthen the measures based on the Voluntary Action Plan, the common goal set for all industries in the Voluntary Action Plan of reducing CO_2 emissions to below the 1990 level can be achieved.

	Fiscal 1990 actual	Fiscal 2010 estimate
7 major industries	446.20 million t-CO_2	442.76 million t-CO_2
(Percentage of total fiscal 2004 emissions)	—	(89.1%)
35 industries' total	508.17 million t-CO_2	496.92 million t-CO_2
Cf. to fiscal 1990	—	2.2% decrease from fiscal 1990
Production amount*	—	7.0% increase from fiscal 1990

* The amount of change in the total production amount is the weighted average in relation to the size of the CO_2 emissions based on estimates by each industry for production amount in fiscal 2010.

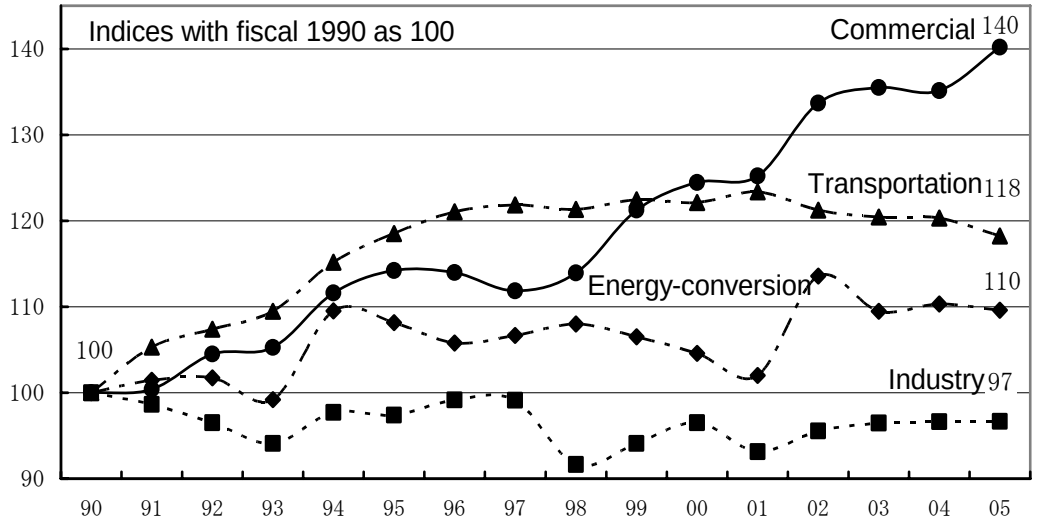
4. Efforts by industries in the commercial and transportation sectors to reduce CO_2 emissions

An examination of the trends in Japan's total CO_2 emissions reveals that based on the preliminary figures for fiscal 2005, emissions from energy consumption increased by

13.9% compared to fiscal 1990. A breakdown of CO_2 emissions by sector shows that emissions from the industrial sector was reduced by 2.3%; and while emissions from the energy-conversion sector increased by 9.7%, the overall change was kept below 10%. On the other hand, emissions from the commercial and other sectors increased by 20–40% compared to fiscal 1990. Going forward, it will become increasingly important for industry to liaise and cooperate with administrative agencies, local authorities, labor unions, non-governmental organizations, and other entities to conduct various activities in unison.

Japanese industry has supported the efforts of the commercial and transportation sectors to fight global warming by developing and providing various services and disseminating energy-saving products that meet "Top Runner" standards. Nippon Keidanren is determined to continue contributing to Japan's achievement of its commitments under the Kyoto Protocol by stepping up efforts in both of these sectors taking advantage of the technological capabilities and creative ingenuity of Japanese companies in carrying out its Voluntary Action Plan on the Environment.

Reference: Japan's CO_2 Emissions from Energy Consumption by Sector (Reallocated by power and heat consumed)



Source: Ministry of Environment documents

In the Fiscal 2006 Follow-up, two new industry groups (The Life Insurance Association of Japan and Japan Franchise Association) participated in addition to the 10 associations and companies from the commercial sector that took part in the previous year. Along

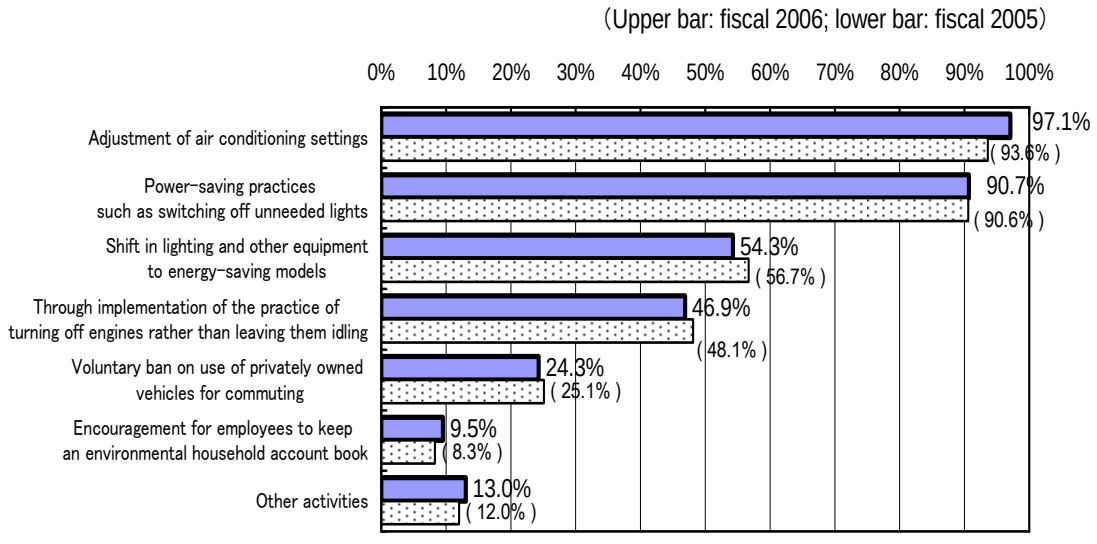
with 13 industrial associations and companies from the transportation sector, they have formulated their own voluntary action plans and have taken steps to deal with global warming (see Attachment 2). Some of the participating industries and companies have set specific quantitative targets for fiscal 2010, such as those for CO_2 emissions or CO_2 emission intensity. Moreover, the participating industrial and energy-conversion industries are taking various measures in their own commercial and transportation operations to reduce CO_2 emissions, such as by promoting energy conservation in offices and modal shifts in transportation.

Reference: Examples of Participating Industries' Measures to Fight Global Warming in Offices and Distribution Operations

[Examples of office measures]

- Strict management of air conditioning temperatures, efficient operation of air conditioning, frequent adjustments of temperature settings
- Switching off lights during lunch breaks or using only every other light, splitting up of lighting circuits, using elevators less
- Introduction of energy-saving equipment (co-generation, thermal storage HVAC systems, solar power generation systems, etc.)
- Shift in OA equipment, lighting fixtures, etc. to energy-saving models
- Introduction of insulated glass and light-filtering glass, adhesion of light-filtering film to glass
- Use of services provided by Energy Service Companies (ESCO), etc.

(*) Survey by Nippon Keidanren (Conducted in August 2006; responses from 514 member companies)



[Examples of distribution measures]

- Use of joint shipping by all group companies, joint shipping to the same destination
- Consolidation and centralization of distribution bases, storage facilities of raw materials and products, and other relevant sites
- Collaboration between distribution companies and their clients
- Mutual supply of products
- Introduction of fuel-efficient cars, electric cars, natural gas cars, energy-saving vehicles, etc.
- Use of larger ships and vehicles
- Modal shift to transportation by railroad and ship
- Encouragement of fuel-efficient driving, such as the practice of turning off engines rather than leaving them idling, reduction of fast take-offs and accelerations, etc.
- Direct delivery to customers
- Reduction in the weight and volume of cargo for transport by reducing product weight and reviewing packaging

Companies are also contributing indirectly to the reduction of greenhouse gas emissions by providing energy-saving products and services. And it is noteworthy that multifaceted efforts are being made, including the following: 1) promotion of energy-saving measures based on evaluations from a life-cycle assessment (LCA) perspective; 2) expanded use, as raw materials and sources of heat energy, of wastes that were considered to be worthless; and 3) steady progress in ESCO operations that make comprehensive use of the energy-saving know-how and technologies that companies possess.

Meanwhile, at present Japanese consumers are not making maximum use of energy-saving products and services.[9] It is essential that each individual acts with a keen awareness of the problem of global warming on a daily basis and changes his or her lifestyle in an effort to solve it. To this end, it is necessary to change people's attitudes and behavior so that they will use more energy-saving products and environment-friendly goods and services by stepping up nationwide efforts, introducing daylight savings time in Japan, and other means. Many companies are making active efforts that would lead to nationwide efforts, such as providing information on energy conservation to customers through their websites and the hosting of events, as well as offering environment education to their employees.

Nippon Keidanren has encouraged member organizations and companies to promote energy conservation and take part in such nationwide energy conservation efforts as "Team Minus 6%," a government-led project to achieve Japan's greenhouse gas reduction target of 6% from 1990 levels by 2012, and "Cool Biz," a summertime casual-dress campaign to reduce the use of air conditioning.[10] The percentage of companies that implemented "Cool Biz" increased to 93% in 2006 from 85% in the previous year. The percentage of companies that supported the "Team Minus 6%" project rose to 74% in 2006 from 53% in the previous year.[11] It is hoped that these efforts will take root.

In addition, an increasing number of initiatives to protect forests and secure absorbers of CO_2 are being reported. These include the expansion of the use of domestic lumber, such as timber from thinning, improvement in the conditions of company-owned forests, and the promotion of afforestation projects in Japan and abroad. In such ways, industry's voluntary efforts to prevent global warming are spreading to various sectors.

It is hoped that more companies will expand their activities aimed at preventing global warming by sharing and effectively using the experiences and results of the efforts made to date to fight global warming. From this perspective, Nippon Keidanren compiled the *Fiscal 2005 Report on Global Warming Prevention Measures: 600 Hints on Reducing CO_2 Emissions** in October 2005 and is now making efforts to disseminate the information to member companies. A revision of the report is planned in the near future.

* For detailed information on efforts by member companies, please refer to the *Fiscal 2005 Report on Global Warming Prevention Measures: 600 Hints on Reducing CO_2 Emissions*, which is available at the following URL (in Japanese):
http://www.keidanren.or.jp/japanese/policy/2005/076.html.

[Examples of measures from the LCA perspective, such as contributions made through products and services, etc.]

Products	Overview	CO_2 reduction
Home appliances	Products with energy-saving features that exceed the target standard values set based on the Top Runner standards were launched.	

	Items	Target standard value for improvement of energy efficiency	Improvement achieved
	Color TVs	16.4% (fiscal 1997 to fiscal 2003)	25.7%
	Video recorders	58.7% (fiscal 1997 to fiscal 2003)	73.6%
	Air conditioners	66.1% (refrigeration year 1997 to 2004 [October 1996 to September 2004])	67.8%
	Electric refrigerators	30.5% (fiscal 1998 to fiscal 2004)	55.2%
	Electric freezers	22.9% (fiscal 1998 to fiscal 2004)	29.6%
High-performance steel products	Even though more energy is consumed during the manufacturing of high-performance steel products compared with conventional steel products, transformers and heat-resistant boilers made with high-performance steel are more energy efficient.		About 7.33 million t-CO_2 per year in fiscal 2004
Fuel-efficient vehicles	Efforts were made for an early market launch of vehicles (gasoline-fueled passenger cars) that met the fuel efficiency target for fiscal 2010, based on the Top Runner standards. In fiscal 2005, about 86% of the cars shipped in Japan met the fuel efficiency target, and the percentage is expected to reach 100% in fiscal 2007.		About 21.00 million t-CO_2 in fiscal 2010
Sulfur-free gasoline and diesel fuel	Sulfur-free auto fuel containing less than 10 ppm of sulfur, released ahead of the schedule set out in government regulations, improves fuel efficiency when used in cars with newly developed engines.		About 1.20 million t-CO_2 in fiscal 2010
Biomass fuel for vehicles	In fiscal 2010, 20% of Japan's domestic demand for gasoline will be met with fuel containing a specified amount of bioethanol in the form of ETBE (ethyl tertiary butyl ether).		Reduction of about 210,000 kl per year (crude oil equivalent) in fiscal 2010

High-efficiency water heaters (“Eco Cute”)	These water heaters are based on a heat-pump system that uses CO_2 as a cooling medium and heat recovered from the atmosphere as heat energy. The cumulative number of units sold by the end of fiscal 2005 was 480,000 units and the target for fiscal 2010 is 5,200,000 units.	Cumulative CO_2 reductions by fiscal 2005: about 0.39 million t-CO_2. Target for fiscal 2010: about 4.00 million t-CO_2
Double glazed windows and plastic sashes	The combined use of plastic window frames and double-glazed glass, with air space between two glass panes, improves the thermal insulation capacity of windows. (This type of product can help reduce air conditioning costs by about 40% compared with conventional products.)	If the product is used in about 30 million homes, CO_2 emissions will be reduced by 28.00 million t-CO_2
High-performance residential heat insulation material	Thermal insulation is improved by using foamed plastic insulation materials made by creating tiny air bubbles in plastic. (This type of product can help reduce air conditioning costs by about 30% compared with conventional products.)	If the product is used in about 30 million homes, CO_2 emissions will be reduced by 21.00 million t-CO_2

[Examples of initiatives intended to lead to nationwide efforts]

- Provision of information on energy saving to customers through company websites and the hosting of events
- Environmental education for employees by supplying environmental household account books and providing other programs
- Implementation of “Cool Biz” and “Warm Biz” campaigns
- Participation in the “Team Minus 6%” project (not only at the company level but also at the individual employee level)
- Implementation of environment education in schools and other institutions
- Encouragement of the use of public transportation for commuting

[Examples of measures to protect forests and CO_2 absorbers]

- Use of domestic timber from thinning for business cards, brochures, CSR reports, etc.
- Active participation in volunteer activities to protect forests hosted by local governments and companies
- Promotion of afforestation projects overseas in countries such as Australia, Brazil, and New Zealand
- Participation in desert greening projects in China
- Participation in experimental rainforest restoration projects in Malaysia, Brazil, and other countries

5. Efforts to make international contributions utilizing the technological capabilities of Japanese industry

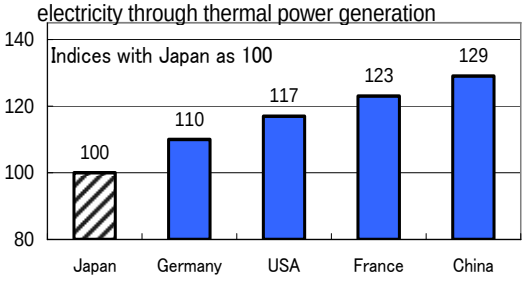
(1) International comparison of energy efficiency

Japanese industry has been a forerunner in promoting energy conservation, launching efforts in the 1970s following the oil shocks. According to the international comparison of energy efficiency conducted by participating industries as part of the Fiscal 2006 Follow-up, world-leading levels of energy efficiency have been achieved in all participating industries that carried out comparisons (see chart below and Attachment 3).

It is vital that Japanese companies proceed with the overseas transfer of their advanced energy-saving and alternative energy technologies and contribute to the reduction of greenhouse gas emissions on a global scale.

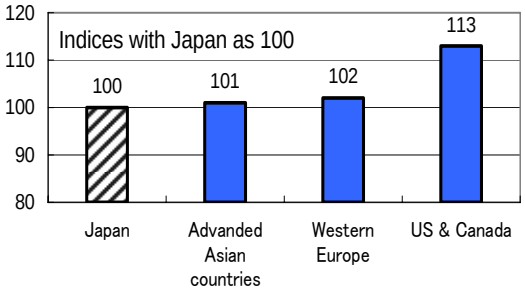
Reference: International Comparison of Energy Efficiency in Industrial and Energy-conversion Sectors

Energy required to produce 1kWh of electricity through thermal power generation



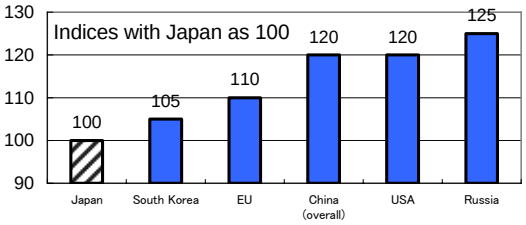
Source: Ecofys

Energy required to produce 1kl of oil products (Fiscal 2002



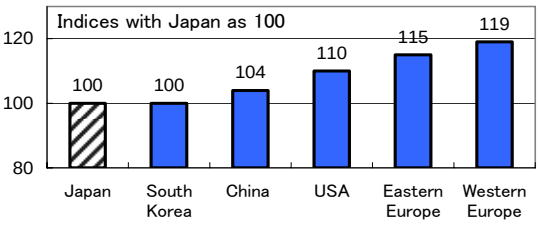
Source: Solomon Associates, Inc

Energy required to produce 1 ton of iron (Fiscal 2003)



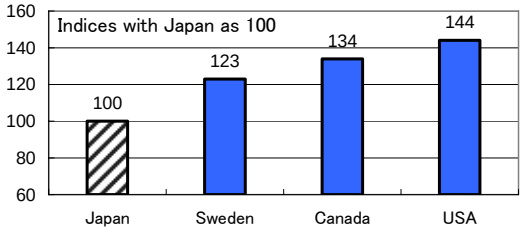
Source: Japan Iron and Steel Federation

Energy required to produce 1 ton of electrolytic caustic soda (Fiscal



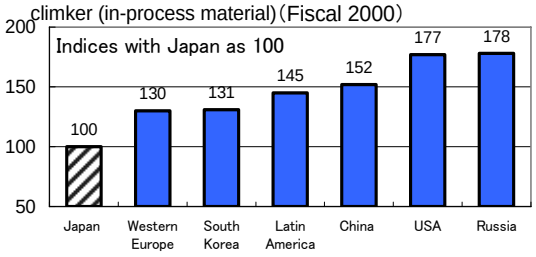
Sources: SRI Chemical Economic Handbook etc.

Energy required to produce 1 ton of paper or paperboard (FY



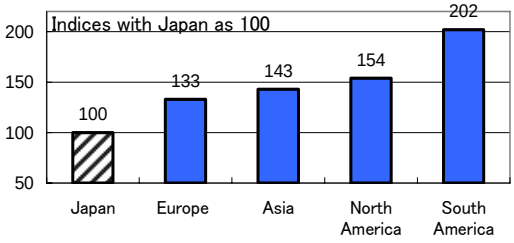
Sources: Agency for Natural Resources and Energy, annual statistics
Environmental Report (Canada) etc.

Energy required to produce 1 ton of cement climker (in-process material) (Fiscal 2000)



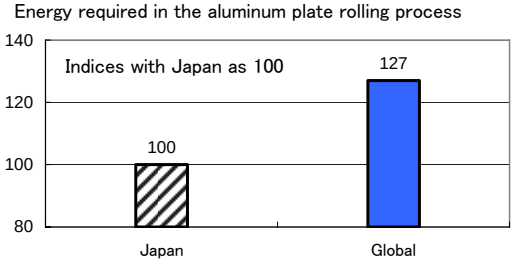
Source: Battelle

Energy required to refine copper



Source: Japan Mining Industry Association

Energy required in the aluminum plate rolling process



Source: International Aluminium Institute, etc.

(2) Operations to reduce greenhouse gases overseas based on the Kyoto Mechanisms

The Clean Development Mechanism (CDM) and Joint Implementation (JI), which can be used to achieve Japan's commitment under the Kyoto Protocol through reductions of greenhouse gases overseas, are positioned as important supplementary means of achieving the objectives of the Voluntary Action Plan.

In the Fiscal 2006 Follow-up, many cases of specific voluntary operations such as fossil fuel alternative energy projects and methane gas recovery in various regions of the world were reported along with the number of carbon credits expected to be generated from Kyoto Mechanisms-based projects. Furthermore, many industrial associations and corporations are making financial contributions to domestic and international funds such as the Japan GHG Reduction Fund and the World Bank. Some industries are also preparing to utilize the Kyoto Mechanisms, and it is expected that utilization will expand further in the future.

Reference: Examples of Projects Reported by Participating Industries Aimed at International Contributions Utilizing the Kyoto Mechanisms

Industry	Project outline	Credits earned (estimate)
Federation of Electric Power Companies of Japan	• Small-scale hydroelectric CDM project in the Kingdom of Bhutan • Fuel switching project in Chile • Participation in various carbon funds (The total amount of contributions to funds is forecast to be about ¥13 billion) • Other projects	For the industry overall, around 20.00 million t-CO_2 by 2010
Japan Iron and Steel Federation	• Project in China's Shandong Province to construct a processing plant for the decomposition of HFC23 gas generated as a byproduct during CFC gas production • Participation in various carbon funds • Other projects	• 10.00 million t-CO_2 per year (total amount acquired jointly with a trading company) • 1.30 million t-CO_2 over five years (fiscal

		2008- fiscal 2012)
Petroleum Association of Japan	- Operations in Vietnam to capture and utilize the oil-field gas released during oil drilling • Operations in Brazil to capture methane gas from landfill disposal sites • Participation in various carbon funds • Other projects	• 0.68 million t-CO_2 per year • 0.66 million t-CO_2 per year
Japan Petroleum Development Association	• Project in China's Zhejiang Province to construct a processing plant for the decomposition of HFC23 gas generated as a byproduct during CFC gas production • Participation in various carbon funds • Other projects	• About 40.00 million t-CO_2 over 7 years (total amount acquired jointly with a trading company) • 2.32 million t-CO_2
Japan Foreign Trade Council, Inc.	• Project to carry out the thermal destruction of HFC23, a byproduct generated during CFC gas production, at a plant in Gujarat, India • Biomass operations in collaboration with a Brazilian steel company • Wind power generation operations in South Korea • Other projects	• 3.00 million t-CO_2 per year • 1.00 million t-CO_2 per year • 0.21 million t-CO_2 per year
Japan Federation of Construction Contractors	• Promotion mainly by major companies of CDM projects in developing countries, such as those for capturing methane gas at waste disposal sites and for power generation • Other projects	—
Japan Chemical Industry Association	• Participation in various carbon funds • Other projects	• 1.70 million t-CO_2

6. Disclosure of environmental information

In addition to steadily advancing industry's environment-related efforts by representing environmental issues in visual form to the largest extent possible and following that up with quantitative figures, it is important to actively disclose environment-related information to gain the understanding of diverse stakeholders. As Nippon Keidanren believes that the Voluntary Action Plan should go hand in hand with the promotion of the voluntary disclosure of information on environmental activities, it encourages its members to further disclose information on their environmental activities through such means as the publication of environmental reports.

According to a survey conducted by Nippon Keidanren of its member companies in August 2006, 338 companies, or about 66% of the 514 responding companies, had already released environmental reports or other relevant documents, and 67 companies, or about 13%, were planning to issue such a report within two years. About 64% of the companies that had issued environmental reports had done so on a consolidated basis, and about 51% had issued them in at least one foreign language. This illustrates that companies are taking a proactive approach to providing information both domestically and internationally.

Looking at the areas covered in the environmental reports, most companies issuing reports included the following topics: "Measures to fight global warming" (93%), "Waste management and recycling" (96%), and "Philanthropy programs" (89%). After these topics, the next two most common were "Chemical substance management" (74%) and "Environmental accounting" (71%). With respect to the measures to fight global warming in particular, many companies made efforts to disclose information on their activities by reporting on the following items: "Company-wide emissions of greenhouse gases (or CO_2)" (81%); "Voluntary reduction targets for greenhouse gas emissions" (73%); "Efforts to reduce greenhouse gas emissions from distribution and commercial operations" (66%); "Environmental education for employees and other activities" (65%); and "Introduction of energy-saving products" (61%).

7. Future policies

In February 2005 the Kyoto Protocol came into force, and in April that year the Cabinet

approved the Kyoto Protocol Target Achievement Plan. This plan states that the advantages of these voluntary methods include the fact that they enable each entity to use its originality and ingenuity to select outstanding countermeasures, and that they involve no procedural costs. It is hoped that these advantages will be further enhanced in voluntary action plans by businesses. In the plan, the Keidanren Voluntary Action Plan on the Environment is stated to be the action plan that will play a central role in the industrial and energy-conversion sectors' efforts toward the achievement of targets.

While calling on participating industries to remain committed to efforts to achieve their individual goals, Nippon Keidanren will work toward achieving the common goal for all industries, namely "to endeavor to reduce CO_2 emissions from the industrial and energy-conversion sectors in fiscal 2010 to below the level of fiscal 1990" by aiming to keep the five-year average of emissions during the Kyoto Protocol's first commitment period (2008 to 2012) below the fiscal 1990 level.

In fiscal 2002 Nippon Keidanren established the Evaluation Committee for the Voluntary Action Plan on the Environment consisting of outside experts to enhance the transparency and credibility of follow-up surveys. It is receiving evaluations in order to enable the industries to continue their measures within the framework of the Voluntary Action Plan over the medium and long terms (see Attachment 4). For the Fiscal 2006 Follow-up, in light of the points made by the Committee, Nippon Keidanren focused on the following areas: verification of the possibility of achieving the common goal; increased participation by industries in the commercial sector; and enhanced information disclosure on the initiatives taken by each industry in their transport and commercial operations and on the planned utilization of the Kyoto Mechanisms. Nippon Keidanren will maintain its efforts to ensure the achievement of the goal by enhancing its Voluntary Action Plan as well as by addressing the matters pointed out by the Evaluation Committee.

Nippon Keidanren will also continue to pursue the following specific initiatives in the commercial and transportation sectors: 1) development and diffusion of energy-saving products and services; 2) deployment of CO_2 emissions reduction efforts in the commercial and transportation sectors; 3) improvement in distribution efficiency through affiliation between cargo owners and transport companies; 4) support for energy-saving activities by employees in their homes; and 5) promotion of forestry maintenance activities.

Global warming is a problem that must be addressed on a global scale, and long-term efforts are critical for its solution. Discussions on a new international framework beyond 2012 are getting underway in earnest, and the participation of all countries, including the major emitting countries currently not obliged to reduce CO_2 emissions, such as the United States, China, and India, is essential if a truly effective framework is to be developed.

Nippon Keidanren will continue to be actively involved in making overseas contributions employing Japan's advanced technology and in promoting technological development, which is the key to solving the problem of global warming. At the same time, it will be an active participant in the discussions on a new international framework in cooperation and collaboration with the business communities around the world.

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[1] The following are the 35 participating industry groups in the industrial and energy-conversion sectors: Flat Glass Manufacturers Association of Japan; Japan Federation of Housing Organizations; The Communications and Information Network Association of Japan; The Japan Electronics and Information Technology Industries Association, The Japan Electrical Manufacturers' Association and The Japan Business Machine and Information System Industries Association; Japan Sugar Refiners' Association; Flour Millers Association; Japan Petroleum Development Association; Petroleum Association of Japan; Limestone Association of Japan; Lime Manufacture Association; Japan Cement Association; The Japan Soft Drinks Association; The Federation of Electric Power Companies of Japan; Japan Aluminum Association; Japan Sanitary Equipment Industry Association; Japan Chemical Industry Association; The Japan Gas Association; Japan Federation of Construction Contractors, Japan Civil Engineering Contractors' Association and Building Contractors Society; Japan Mining Industry Association; Japan Machine Tool Builder's Association; The Japan Rubber Manufacturers Association; The Japan Society of Industrial Machinery Manufacturers; Japan Industrial Vehicles Association; Japan Automobile Manufacturers Association; Japan Auto-body Industries Association; Japan Auto Parts Industries Association; Japan Copper and Brass Association; Japan Paper Association; The Federation of Pharmaceutical Manufacturers' Associations of Japan and Japan Pharmaceutical Manufacturers Association; The Shipbuilders' Association of Japan and the Cooperative Association of Japan Shipbuilders; The Japan Iron and Steel Federation; Japan Association of Rolling Stock Industries; The Japanese Electric Wire & Cable Makers' Association; Japan Dairy Industry Association; The Japan Bearing Industrial

Association; and Brewers Association of Japan.

[2] When electric power input per unit output is used to calculate emissions for industry as a whole, Nippon Keidanren uses the following data (for all power sources at generating ends) provided by the Federation of Electric Power Companies. When not otherwise specified, electric power input per unit output cited by the respective industries is also based on data provided by the Federation of Electric Power Companies.
{For FY 1990: 3.74; FY 1997: 3.26; FY 1998: 3.16; FY 1999: 3.34; FY 2000: 3.38; FY 2001: 3.38; FY 2002: 3.62; FY 2003: 3.89; FY 2004: 3.76; FY 2005: 3.81; FY 2010: 2.99; FY 2010 (BAU): 3.76 (t-CO_2/10,000 kWh)}.

Other conversion coefficients for energy: With respect to caloric value, Keidanren utilizes data from the following: Comprehensive Energy Statistics, the Agency of Natural Resources and Energy's "Caloric Value Table by Energy Source" (dated March 30, 2001), and survey data by the Federation of Electric Power Companies. Due to revisions of the Caloric Value Table, caloric conversion coefficients for periods prior to FY1999 differ from those for after FY2000. For carbon conversion coefficients, Keidanren uses the Environment Agency's "Report on Survey of Carbon Dioxide Emissions (1992)."

[3] The total of emissions from the energy-conversion and industrial sectors, and from industrial processes, as contained in the statistics on total CO_2 emissions for Japan, which are announced by the Ministry of the Environment.

[4] Industries review actual and forecasted figures on CO_2 emissions each year with the aim of improving the accuracy of such figures. Therefore, different numbers may appear from those cited in the previous year.

[5] BAU (Business As Usual): the amount of CO_2 emissions in FY 2010, assuming that the Voluntary Action Plan is not executed from FY 2005 on. This is estimated as an increase of approximately 15.00 million t-CO_2 compared to 1990.

[6] The goals of the Japan Gas Association, which defines its targets in terms of CO_2 emissions and CO_2 emission intensity; the Japan Rubber Manufacturers' Association, which defines its targets in terms of CO_2 emissions and energy consumption intensity; the Japan Soft Drinks Association and Flour Millers Association, which define their targets in terms of CO_2 emission intensity and energy consumption intensity; the Japan Machine Tool Builders' Association and

the Japan Electric Wire and Cable Makers' Association, which define their targets in terms of energy consumption and energy consumption intensity, have been included among industries reporting improvements in each target.

[7] Estimates of production activities in FY 2010 were based on the common economic indicators (source: reference documents dated January 18, 2006, from a meeting of the Council on Economic and Fiscal Policy, the Cabinet Office), but some industries based their forecasts on their own assumptions.

[8] The number of participating industries from the commercial sector increased to 12 with the addition of the Life Insurance Association of Japan and the Japan Franchise Association in FY 2006. The participating industry groups are: Japanese Bankers Association; Japan LP Gas Association; Life Insurance Association of Japan; The General Insurance Association of Japan; Japan Chain Stores Association; Japan Department Stores Association; Japan Franchise Association: Japan Hotel Association; Japan Foreign Trade Council, Inc.; Japan Association of Refrigerated Warehouses; The Real Estate Companies Association of Japan; and NTT Group.

The participating industries from the transportation sector comprise the following 13 associations and companies: All Japan Freight Forwarders Association; Japan Trucking Association; The Scheduled Airlines Association of Japan; The Japanese Shipowners' Association; Japan Federation of Coastal Shipping Associations; The Association of Japanese Private Railways; and JR Freight, JR Kyushu, JR Shikoku, JR Central, JR West, JR East, and JR Hokkaido.

[9] On July 18, 2006, The Keizai Koho Center (Japan Institute for Social and Economic Affairs) released results of a public survey on global warming. According to this survey, 90% of the respondents said they either "evaluate highly" or "evaluate to some degree" the "development and sales of energy-saving products and appliances" by companies. However, only 48% said they "place more emphasis on energy efficiency than price when buying home appliances," and just 38% "try to select products and services of companies that are actively addressing environmental issues."

[10] On June 1, 2006, Fujio Mitarai, Chairman of Nippon Keidanren, issued a statement requiring its member companies to step up their efforts to prevent global warming by supporting nationwide efforts on environmental issues, steadily achieving the goals of their voluntary action plans, participating in the Keidanren Voluntary Action Plan if they have yet to do so, and

actively disclosing environmental information.

[11] The results of the follow-up survey on nationwide efforts to prevent global warming (September 13, 2006; Number of responding companies: 514)

(Attachment 1)

Trends in Industrial and Energy-Conversion Sectors

(10,000t-CO2; 10,000kl, crude oil equivalents)

Industry	(☆: target defined in terms of this index	Fiscal 1990	Fiscal 1997	Fiscal 1998	Fiscal 1999	Fiscal 2000	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Compared to fiscal 1990(%)	Compared to fiscal 2004(%)
Federation of Electric Power Companies	CO2 emissions	27,700	29,200	28,500	30,700	31,700	31,200	34,200	36,300	36,400	37,500	+35.4%	+3.0%
	CO2 emissions intensity ☆	1	0.88	0.85	0.89	0.90	0.90	0.97	1.04	1.00	1.01		
	Energy consumption	10,800	11,200	10,900	11,700	12,000	11,700	12,800	13,500	13,300	13,600	+25.9%	+2.3%
	Energy consumption intensity	1	0.97	0.97	0.96	0.95	0.95	0.94	0.94	0.95	0.95		
	Production activity index	1	1.20	1.21	1.24	1.27	1.25	1.28	1.27	1.31	1.34		
Portion attributed to industry: these figures are used in the calculation of the 35-industry totals	CO2 emissions	3,100	3,380	3,240	3,360	3,430	3,370	3,780	3,880	3,850	3,880	+25.2%	+0.8%
	Energy consumption	1,210	1,300	1,240	1,280	1,300	1,270	1,410	1,440	1,410	1,410	+16.5%	+0.0%
Petroleum Association of Japan	CO2 emissions	3,303	4,384	4,325	4,383	4,368	4,388	4,340	4,385	4,354	4,479	+35.6%	+2.9%
	CO2 emissions intensity	1	0.92	0.92	0.91	0.89	0.90	0.90	0.89	0.88	0.86		
	Energy consumption	1,287	1,705	1,670	1,675	1,661	1,657	1,650	1,675	1,669	1,723	+33.9%	+3.2%
	Energy consumption intensity ☆	1	0.92	0.92	0.89	0.87	0.87	0.87	0.87	0.86	0.85		
	Production activity index	1	1.44	1.42	1.46	1.48	1.48	1.47	1.49	1.50	1.58		
Japan Gas Association	CO2 emissions ☆	116	95	91	89	84	77	84	76	76	71	-38.7%	-6.6%
	CO2 emissions intensity ☆	1	0.57	0.53	0.50	0.45	0.41	0.41	0.36	0.34	0.30		
	Energy consumption	68.2	51.6	49.3	48.8	46.5	43.0	45.3	39.6	40.5	37.8	-44.5%	-6.5%
	Energy consumption intensity	1	0.53	0.50	0.47	0.43	0.39	0.38	0.32	0.31	0.26		
	Production activity index	1	1.43	1.46	1.54	1.60	1.62	1.76	1.82	1.94	2.10		
Japan Iron and Steel Federation	CO2 emissions	19,533	19,340	18,226	18,755	18,090	17,616	18,118	18,296	18,365	18,195	-6.9%	-0.9%
	CO2 emissions intensity	1	0.97	0.96	0.96	0.95	0.95	0.94	0.93	0.93	0.93		
	Energy consumption ☆	6,498	6,445	6,068	6,210	6,036	5,842	5,987	6,032	6,111	6,073	-6.5%	-0.6%
	Energy consumption intensity	1	0.97	0.96	0.96	0.95	0.95	0.94	0.93	0.93	0.93		
	Production activity index	1	0.92	0.81	0.88	0.96	0.91	0.98	0.99	1.01	1.01		
Japan Chemical Industry Association	CO2 emissions	6,832	7,588	7,294	7,630	7,625	7,272	7,402	7,475	7,569	7,516	+10.0%	-0.7%
	CO2 emissions intensity	1	0.93	0.92	0.92	0.91	0.91	0.91	0.90	0.87	0.85		
	Energy consumption	2,712	3,084	2,971	3,075	3,015	2,882	2,916	2,917	2,979	2,976	+9.8%	-0.1%
	Energy consumption intensity ☆	1	0.95	0.94	0.93	0.91	0.91	0.90	0.88	0.86	0.85		
	Production activity index	1	1.20	1.16	1.22	1.22	1.17	1.19	1.22	1.27	1.29		
Japan Paper Association	CO2 emissions	2,542	2,601	2,602	2,638	2,726	2,624	2,649	2,639	2,586	2,507	-1.4%	-3.0%
	CO2 emissions intensity ☆	1	0.96	0.98	0.95	0.96	0.99	0.97	0.97	0.95	0.91		
	Energy consumption	943	953	951	959	980	934	940	928	909	886	-6.1%	-2.5%
	Energy consumption intensity ☆	1	0.94	0.97	0.94	0.93	0.95	0.93	0.92	0.90	0.87		
	Production activity index	1	1.07	1.04	1.09	1.11	1.04	1.07	1.06	1.07	1.09		
Cement Association of Japan	CO2 emissions	2,743	2,781	2,480	2,464	2,474	2,376	2,249	2,186	2,108	2,178	-20.6%	+3.3%
	CO2 emissions intensity	1	1.02	1.02	1.02	1.02	1.02	1.01	1.01	1.00	1.00		
	Energy consumption	861	851	756	747	745	714	674	652	630	652	-24.3%	+3.5%
	Energy consumption intensity ☆	1	0.99	0.99	0.98	0.98	0.98	0.97	0.96	0.95	0.95		
	Production activity index	1	0.99	0.89	0.88	0.88	0.85	0.81	0.79	0.77	0.79		
Japan Electrical Manufacturers' Association, Japan Electronics and INformation Technology Industries Association, Communications and Information network Association of Japan, Japan Business Machine and Information System Industries	CO2 emissions	1,181	1,441	1,314	1,389	1,460	1,398	1,517	1,781	1,819	1,866	+58.0%	+2.6%
	CO2 emissions intensity ☆	1	0.79	0.75	0.76	0.71	0.69	0.69	0.74	0.69	0.68		
	Energy consumption	672	914	836	848	891	853	868	972	1,023	1,037	+54.1%	+1.4%
	Energy consumption intensity	1	0.88	0.84	0.81	0.76	0.74	0.69	0.71	0.68	0.66		
	Production activity index	1	1.55	1.48	1.55	1.75	1.71	1.87	2.05	2.24	2.33		

Industry	(☆: target defined in terms of this index	Fiscal 1990	Fiscal 1997	Fiscal 1998	Fiscal 1999	Fiscal 2000	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Compared to fiscal 1990(%)	Compared to fiscal 2004(%)
Japan Federation of Construction Contractors	CO2 emissions	923	892	876	718	704	660	643	514	493	524	-43.3%	+6.3%
	CO2 emissions intensity ☆	1	0.97	0.95	0.94	0.90	0.92	0.97	0.90	0.86	0.88		
	Energy consumption	429	416	409	336	324	301	286	229	225	225	-47.5%	+0.2%
	Energy consumption intensity	1	0.97	0.95	0.95	0.89	0.90	0.93	0.86	0.85	0.82		
	Production activity index	1	1.00	1.00	0.82	0.85	0.78	0.72	0.62	0.62	0.64		
Japan Automobile Manufacturers Association	CO2 emissions ☆	759	695	662	641	625	585	595	579	586	574	-24.3%	-2.0%
	CO2 emissions intensity	1	0.97	1.00	0.99	0.92	0.83	0.77	0.75	0.74	0.67		
	Energy consumption	410	377	357	343	333	313	316	308	314	315	-23.2%	+0.1%
	Energy consumption intensity	1	0.98	1.00	0.98	0.91	0.83	0.76	0.74	0.73	0.68		
	Production activity index	1	0.94	0.87	0.85	0.90	0.93	1.01	1.01	1.05	1.13		
Japan Auto Parts Industries Association	CO2 emissions ☆	718	691	647	653	641	591	647	671	691	740	+3.1%	+7.1%
	CO2 emissions intensity	1	0.94	0.93	0.91	0.86	0.81	0.83	0.81	0.80	0.79		
	Energy consumption	375	406	390	381	361	335	350	348	365	387	+3.2%	+6.0%
	Energy consumption intensity	1	1.05	1.07	1.02	0.93	0.87	0.86	0.81	0.81	0.79		
	Production activity index	1	1.03	0.97	1.00	1.03	1.02	1.08	1.15	1.21	1.31		
Japan Federation of Housing Organizations	CO2 emissions ☆	538	537	508	519	497	497	487	454	447	439	-18.4%	-1.7%
	CO2 emissions intensity	1	1.08	1.14	1.08	1.06	1.14	1.18	1.08	0.95	0.93		
	Energy consumption	205	204	193	169	164	164	188	175	172	169	-17.4%	-1.7%
	Energy consumption intensity	1	1.08	1.14	0.93	0.92	0.99	1.19	1.10	0.96	0.95		
	Production activity index	1	0.92	0.83	0.89	0.87	0.81	0.77	0.78	0.87	0.87		
Japan Mining Industry Association	CO2 emissions	488	484	482	495	506	503	502	517	510	505	+3.6%	-0.9%
	CO2 emissions intensity	1	0.92	0.93	0.90	0.87	0.88	0.90	0.91	0.91	0.90		
	Energy consumption	205	210	213	218	214	216	215	215	215	213	+3.6%	-1.2%
	Energy consumption intensity ☆	1	0.95	0.97	0.95	0.88	0.91	0.91	0.90	0.92	0.90		
	Production activity index	1	1.07	1.06	1.12	1.18	1.16	1.15	1.16	1.14	1.15		
Lime Manufacture Association	CO2 emissions	354	310	272	293	302	275	292	299	300	313	-11.6%	+4.4%
	CO2 emissions intensity	1	0.94	0.90	0.92	0.93	0.91	0.92	0.90	0.87	0.89		
	Energy consumption ☆	121.8	108.2	95.9	103.0	104.7	95.4	99.9	100.8	101.3	106.9	-12.2%	+5.6%
	Energy consumption intensity	1	0.95	0.92	0.94	0.94	0.92	0.91	0.88	0.85	0.88		
	Production activity index	1	0.93	0.86	0.90	0.91	0.86	0.90	0.94	0.98	1.00		
The Japan Rubber Manufacturers Association	CO2 emissions ☆	192	189	186	191	187	183	196	214	216	215	+11.7%	-0.6%
	CO2 emissions intensity	1	0.97	0.97	0.95	0.93	0.94	0.95	0.99	0.98	0.93		
	Energy consumption	93.8	98.1	97.8	98.9	94.3	92.7	96.9	102.2	103.8	103.3	+10.1%	-0.5%
	Energy consumption intensity ☆	1	1.04	1.05	1.00	0.96	0.97	0.96	0.97	0.96	0.92		
	Production activity index	1	1.01	1.00	1.05	1.05	1.01	1.07	1.13	1.15	1.20		
The Federation of Pharmaceutical Manufacturers' Association of Japan Japan Pharmaceutical Manufacturers Association	CO2 emissions ☆	173	190	208	223	226	224	225	231	239	233	+34.7%	-2.6%
	CO2 emissions intensity	1	1.16	0.93	0.95	0.93	0.86	0.83	0.84	0.84	0.76		
	Energy consumption	81.7	97.3	108.0	113.0	111.8	112.5	110.4	111.5	116.3	113.9	+39.5%	-2.0%
	Energy consumption intensity	1	1.26	1.02	1.02	0.97	0.91	0.87	0.86	0.86	0.79		
	Production activity index	1	0.95	1.29	1.36	1.41	1.51	1.56	1.59	1.65	1.76		
Flat Glass Association	CO2 emissions	178	164	145	138	135	137	133	135	135	133	-25.4%	-1.7%
	CO2 emissions intensity	1	1.15	1.17	1.09	1.10	1.11	1.12	0.99	0.99	1.03		
	Energy consumption ☆	71.4	65.0	58.8	55.4	53.8	55.1	53.3	53.3	53.4	52.4	-26.6%	-1.9%
	Energy consumption intensity	1	1.14	1.18	1.10	1.10	1.11	1.12	0.97	0.97	1.02		
	Production activity index	1	0.80	0.70	0.71	0.69	0.69	0.67	0.77	0.77	0.72		

Industry	(☆:target defined in terms of this index	Fiscal 1990	Fiscal 1997	Fiscal 1998	Fiscal 1999	Fiscal 2000	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Compared to fiscal 1990(%)	Compared to fiscal 2004(%)
Japan Aluminum Association	CO2 emissions	148	162	152	161	163	155	144	166	164	159	+7.2%	-2.9%
	CO2 emissions intensity	1	0.94	0.95	0.94	0.93	0.97	0.96	0.95	0.93	0.96		
	Energy consumption	73.4	84.5	79.8	83.1	80.8	76.8	70.7	78.6	79.1	77.1	+5.1%	-2.5%
	Energy consumption intensity ☆	0.95	0.95	0.96	0.94	0.89	0.92	0.90	0.86	0.87	0.89		
	Production activity index	1	1.16	1.08	1.15	1.18	1.08	1.13	1.18	1.18	1.12		
Brewers Association of Japan	CO2 emissions ☆	112	120	116	113	107	104	98.9	93.5	88.5	86.1	-22.9%	-2.7%
	CO2 emissions intensity	1	0.99	0.95	0.92	0.88	0.85	0.83	0.84	0.80	0.79		
	Energy consumption	53.3	59.4	59.6	57.6	53.6	52.7	48.8	44.4	43.1	41.9	-21.4%	-3.0%
	Energy consumption intensity	1	1.03	1.02	0.99	0.93	0.91	0.86	0.84	0.81	0.81		
	Production activity index	1	1.09	1.09	1.10	1.09	1.09	1.06	0.99	1.00	0.97		
Japan Electric Wire and Cable Makers' Association	CO2 emissions	100	93.3	87.7	88.2	92.4	85.9	85.2	89.2	85.5	85.6	-14.5%	+0.1%
	CO2 emissions intensity (copper/aluminum	1	0.97	1.04	1.11	1.07	1.11	1.10	1.16	1.14	1.09		
	(optical fiber)	1	0.77	0.72	0.58	0.44	0.40	0.44	0.49	0.42	0.27		
	Energy consumption ☆	58.8	61.0	58.4	56.9	57.1	53.2	50.1	49.5	48.8	48.4	-17.6%	-0.6%
	Energy consumption intensity(copper/aluminum	1	1.07	1.17	1.21	1.12	1.16	1.10	1.10	1.10	1.04		
	(optical f ☆	1	0.85	0.81	0.63	0.46	0.40	0.42	0.43	0.39	0.25		
	Production activity index (copper/aluminum)	1	0.89	0.79	0.72	0.76	0.65	0.68	0.68	0.69	0.73		
	(optical fiber)	1	5.38	5.29	8.33	13.82	18.02	13.03	11.75	10.62	14.37		
Japan Auto-body Industries Association, Inc.	CO2 emissions ☆	90.3	82.8	80.9	82.9	87.6	88.7	92.7	94.1	85.2	95.8	+6.0%	+12.4%
	CO2 emissions intensity	1	0.95	0.94	0.91	0.87	0.74	0.71	0.70	0.69	0.64		
	Energy consumption	47.2	46.7	46.7	46.3	47.6	48.1	49.0	48.7	46.0	51.3	+8.7%	+11.5%
	Energy consumption intensity	1	1.02	1.04	0.97	0.90	0.77	0.72	0.70	0.71	0.66		
	Production activity index	1	0.97	0.96	1.01	1.12	1.33	1.45	1.48	1.37	1.66		
Japan Dairy Industry Association	CO2 emissions	85.7	95.8	98.3	102	103	104	108	113	111	109	+27.5%	-2.0%
	CO2 emissions intensity	1.00	0.93	0.95	0.97	1	1.01	1.07	1.08	1.06	1.06		
	Energy consumption	40.2	48.4	50.2	51.2	50.0	50.8	51.1	52.2	51.8	50.4	+25.3%	-2.7%
	Energy consumption intensity ☆	0.97	0.97	0.99	1.00	1	1.01	1.04	1.02	1.01	1.00		
	Production activity index	1	1.20	1.21	1.23	1.20	1.20	1.18	1.23	1.24	1.21		
Japan Brass Makers Association	CO2 emissions	65.8	57.5	50.9	54.4	56.7	48.1	53.9	56.9	57.0	57.8	-12.1%	+1.4%
	CO2 emissions intensity	1	0.88	0.86	0.93	0.85	0.94	0.89	0.97	0.88	0.90		
	Energy consumption	37.0	35.4	31.6	32.7	33.3	28.2	30.3	30.7	31.2	31.7	-14.1%	+1.6%
	Energy consumption intensity ☆	1	0.97	0.95	1.00	0.89	0.98	0.90	0.93	0.86	0.88		
	Production activity index	1	0.99	0.90	0.89	1.02	0.78	0.92	0.89	0.98	0.98		
Japan Society of Industrial Machinery Manufacturers	CO2 emissions ☆	71.3	64.5	58.8	57.0	59.3	57.2	58.5	60.7	60.0	62.4	-12.5%	+4.0%
	CO2 emissions intensity	1	0.92	0.92	1.02	1.02	1.10	1.15	1.22	1.09	1.06		
	Energy consumption	39.5	38.7	36.0	33.7	33.6	32.3	31.8	31.6	31.9	33.1	-16.2%	+3.8%
	Energy consumption intensity	1	1.00	1.02	1.08	1.04	1.12	1.12	1.15	1.04	1.01		
	Production activity index	1	0.98	0.90	0.79	0.82	0.73	0.72	0.70	0.78	0.83		
Japan Bearing Industrial Association	CO2 emissions	61.8	58.8	53.8	55.1	59.9	55.4	61.1	66.2	66.7	69.7	+12.7%	+4.4%
	CO2 emissions intensity ☆		1	0.99	0.98	0.95	1.00	1.02	1.01	0.95	0.95		
	Energy consumption	35.6	36.5	34.4	34.1	35.5	32.9	35.0	36.0	37.7	39.1	+9.8%	+3.6%
	Energy consumption intensity		1	1.02	0.97	0.91	0.96	0.94	0.89	0.86	0.85		
	Production activity index		1	0.93	0.96	1.07	0.95	1.02	1.11	1.20	1.26		

Industry	(☆:target defined in terms of this index	Fiscal 1990	Fiscal 1997	Fiscal 1998	Fiscal 1999	Fiscal 2000	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Compared to fiscal 1990(%)	Compared to fiscal 2004(%)
Japan Sugar Refiners' Association	CO2 emissions ☆	58.0	48.9	47.7	47.5	49.3	48.9	46.0	48.1	44.2	41.8	-28.0%	-5.6%
	CO2 emissions intensity	1	0.94	0.94	0.94	0.95	0.96	0.93	0.95	0.89	0.85		
	Energy consumption	24.3	22.1	21.6	21.5	22.0	21.8	20.1	20.9	19.6	18.9	-22.4%	-3.8%
	Energy consumption intensity	1	1.01	1.02	1.02	1.01	1.03	0.97	0.98	0.95	0.92		
	Production activity index	1	0.90	0.88	0.87	0.90	0.88	0.85	0.87	0.85	0.85		
Japan Sanitary Equipment Industry Association	CO2 emissions ☆	47.9	41.6	34.9	35.5	36.5	37.3	35.4	36.4	36.3	34.6	-27.7%	-4.5%
	CO2 emissions intensity	1	0.81	0.82	0.83	0.80	0.83	0.80	0.78	0.73	0.68		
	Energy consumption	22.4	21.4	18.3	18.4	18.3	18.2	17.0	16.9	16.8	16.5	-26.5%	-2.0%
	Energy consumption intensity	1	0.89	0.91	0.91	0.86	0.86	0.82	0.77	0.73	0.69		
	Production activity index	1	1.08	0.89	0.89	0.95	0.94	0.93	0.98	1.03	1.07		
The Japan Soft Drinks Association	CO2 emissions	46.0	66.1	68.5	74.8	81.0	84.1	87.5	92.2	96.2	97.3	+111.6%	+1.1%
	CO2 emissions intensity ☆	1	0.98	0.99	1.02	1.07	1.05	1.10	1.11	1.08	1.15		
	Energy consumption	20.3	30.9	32.9	35.9	38.4	40.3	41.6	43.2	45.5	46.7	+129.5%	+2.6%
	Energy consumption intensity	1	1.04	1.07	1.10	1.15	1.13	1.18	1.17	1.15	1.25		
	Production activity index	1	1.47	1.51	1.60	1.64	1.75	1.73	1.81	1.94	1.84		
Limestone Association of Japan	CO2 emissions	45.4	42.0	39.9	40.6	41.7	41.3	39.1	36.5	35.6	36.6	-19.5%	+2.7%
	CO2 emissions intensity	1	0.90	0.95	0.97	0.97	0.98	0.94	0.97	0.96	0.96		
	Energy consumption	22.6	22.0	21.1	20.9	20.9	20.6	19.0	17.2	17.1	17.4	-22.7%	+1.9%
	Energy consumption intensity ☆	1	0.96	1.01	1.02	0.99	0.99	0.92	0.92	0.93	0.92		
	Production activity index	1	1.02	0.93	0.91	0.94	0.92	0.91	0.82	0.81	0.84		
Japan Machine Tool Builders' Association	CO2 emissions	23.1	20.9	22.9	20.1	20.7	19.5	18.4	20.4	22.7	24.9	+8.0%	+9.8%
	CO2 emissions intensity		1	1.00	1.14	1.02	1.02	1.27	1.16	1.03	0.90		
	Energy consumption ☆	14.5	14.5	16.3	13.7	14.1	13.3	11.9	12.5	14.2	15.5	+6.7%	+9.3%
	Energy consumption intensity ☆		1	1.03	1.12	1.00	0.99	1.19	1.02	0.92	0.80		
	Production activity index	1	1.00	1.10	0.85	0.98	0.92	0.69	0.85	1.06	1.33		
Flour Millers Association	CO2 emissions	17.0	18.7	18.1	18.7	19.2	19.0	20.4	22.6	21.4	21.3	+25.1%	-0.4%
	CO2 emissions intensity ☆	1	1.00	0.92	0.95	0.97	0.96	1.03	1.12	1.07	1.07		
	Energy consumption	10.8	12.6	12.9	12.7	12.5	12.4	12.5	13.0	12.7	12.6	+16.5%	-0.9%
	Energy consumption intensity	1	1.06	1.04	1.02	0.99	0.98	1.00	1.02	1.00	1.00		
	Production activity index	1	1.10	1.15	1.16	1.17	1.16	1.16	1.19	1.17	1.17		
The Shipbuilders' Association of Japan(A) The Cooperative Association of Japan Shipbuilders(B)	CO2 emissions	15.0	19.2	18.0	18.7	18.3	18.2	24.2	26.0	26.7	28.9	+92.4%	+8.6%
	CO2 emissions intensity (A)	1	0.88	0.80	0.77	0.73	0.74	1.01	0.98	0.84	0.85		
	(B)					1	1.23	1.22	1.29	1.18	1.29		
	Energy consumption	9.8	14.3	13.9	13.6	12.6	12.5	15.6	15.5	16.5	17.5	+78.9%	+6.4%
	Energy consumption intensity (A) ☆	1	0.96	0.91	0.81	0.88	0.90	0.95	0.98	0.90	0.92		
	(B) ☆	1	0.92	0.97	0.88	0.87	0.88	0.87	0.89	0.88	0.91		
	Production activity index (A)	1	1.45	1.50	1.62	1.42	1.40	1.40	1.55	1.83	1.97		
	(B)					1	0.77	0.85	0.86	1.12	1.09		
Japan Industry Vehicles Association	CO2 emissions ☆	6.1	6.1	5.7	6.2	6.1	5.4	5.8	6.0	6.1	6.3	+3.3%	+4.0%
	CO2 emissions intensity	1	1.23	1.48	1.56	1.38	1.35	1.42	1.39	1.22	1.11		
	Energy consumption	3.2	3.5	3.3	3.4	3.4	3.0	3.1	3.2	3.3	3.4	+4.5%	+3.6%
	Energy consumption intensity	1	1.33	1.62	1.63	1.45	1.44	1.46	1.38	1.23	1.13		
	Production activity index	1	0.81	0.63	0.65	0.72	0.65	0.66	0.71	0.82	0.93		

Industry	(☆:target defined in terms of this index	Fiscal 1990	Fiscal 1997	Fiscal 1998	Fiscal 1999	Fiscal 2000	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Compared to fiscal 1990(%)	Compared to fiscal 2004(%)
Japan Association of Rolling Stock Industries	CO2 emissions ☆	4.3	3.4	3.2	3.3	3.2	3.2	3.0	3.1	3.2	3.4	-21.8%	+7.0%
	CO2 emissions intensity	1	0.81	0.77	0.70	0.74	0.77	0.64	0.66	0.46	0.52		
	Energy consumption	2.4	2.0	2.0	2.0	1.9	1.9	1.7	1.7	1.8	1.9	-21.2%	+5.7%
	Energy consumption intensity	1	0.89	0.88	0.78	0.79	0.83	0.66	0.66	0.47	0.53		
	Production activity index	1	0.96	0.96	1.08	1.01	0.95	1.08	1.07	1.59	1.49		
Japan Petroleum Development Association	CO2 emissions	15.7	16.6	15.5	14.3	17.4	17.6	22.2	25.0	18.1	20.8	+32.6%	+15.2%
	CO2 emissions intensity ☆	1	0.83	0.79	0.74	0.84	0.86	1.02	1.06	0.74	0.79		
	Energy consumption	6.0	6.9	7.0	6.4	7.0	6.3	7.1	6.6	7.1	8.1	+36.3%	+14.7%
	Energy consumption intensity	1	0.91	0.94	0.88	0.89	0.81	0.86	0.74	0.76	0.81		
	Production activity index	1	1.28	1.25	1.22	1.32	1.31	1.38	1.50	1.56	1.68		
Emissions from industrial processes	CO2 emissions	6,207	6,066	5,435	5,436	5,489	5,316	5,191	5,246	5,109	5,243		
Revisions	CO2 emissions	-75	-173	-170	-142	-140	-138	-137	-139	-149	-145		
	Energy consumption	-165	-174	-149	-150	-236	-218	-207	-216	-227	-221		
Total	CO2 emissions	50,817	52,673	49,796	50,867	50,449	48,946	49,916	50,496	50,332	50,507	-0.6%	+0.3%
	Energy consumption	16,765	17,844	17,009	17,206	16,977	16,406	16,721	16,820	16,961	17,012	+1.5%	+0.3%

* "Emissions from industrial processes" refers to CO2 emitted by non-energy sources in the course of the manufacturing process.
* Total CO2 emissions and energy consumption for the 35 industries are calculated on the basis of "generating end" electric power input per unit output for the respective industries on a fiscal year basis. On the other hand, in follow-up surveys, industries may also choose to report emissions in terms of "demand end" electric power input per unit output or fixed (the ratio in fiscal 1990) electric power input per unit output (as have the Japan Gas Association, Japan Iron and Steel Federation, Japan Electrical Manufacturers' Association, Japan Electronics and Information Technology Industries Association, Communications and Information Network Association of Japan, Japan Business Machine and Information System Industries Association, Japan Automobile Manufacturers Association, Japan Mining Industry Association, and Japan Machine Tool Builders' Association). Revisions are defined as the differences between the totals of data submitted by industries and the totals of the revised industry figures.
* Due to a revision of the Caloric Value Table, calculations of emissions from fiscal 2000 on are based on different heat conversion coefficients from those used through fiscal 1999.
* In cases where an industry uses a year other than fiscal 1990 as the base year, intensity indexes are calculated based on figures for the base year used by that industry (The Japan Bearing Industrial Association and Japan Machine Tool Builders' Association use fiscal 1997 as the base year, Japan Dairy Industry Association uses fiscal 2000 as the base year, and Japan Aluminum Association uses fiscal 1995 as the base year for the energy consumption intensity index).

(Attachment2)

Industry Trends in the Transportation, Offices and Household Sector

Commercial Sector

(10,000t-CO2; 10,000kl, crude oil equivalents)

Industries	☆：target defined in terms of this inde	Fiscal 1990	Fiscal 1997	Fiscal 1998	Fiscal 1999	Fiscal 2000	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Compared to fiscal 1990(%)	Compared to fiscal 2004(%)
Japan Association of Refrigerated Warehouses	CO2 emissions	55.7	57.9	57.9	61.5	61.3	62.3	66.2	70.3	70.2	74.4	33.7%	6.0%
	CO2 emissions intensity	1	0.82	0.80	0.84	0.83	0.85	0.91	0.96	0.96	1.00		
	Energy consumption	36.2	43.1	44.6	44.7	42.2	42.9	42.5	42.0	43.3	45.3	25.2%	4.6%
	Energy consumption intensity ☆	1	0.94	0.95	0.93	0.88	0.90	0.89	0.88	0.91	0.94		
	Production activity index	1	1.27	1.30	1.32	1.32	1.32	1.31	1.32	1.31	1.33		
Japan LP Gas Association	CO2 emissions	4.3	4.0	3.8	4.0	4.0	4.0	4.2	4.4	4.3	4.6	5.2%	5.2%
	CO2 emissions intensity	1	0.84	0.82	0.86	0.85	0.88	0.93	0.99	1.00	1.04		
	Energy consumption	2.8	3.0	2.9	2.9	2.8	2.8	2.7	2.6	2.7	2.8	-1.6%	3.8%
	Energy consumption intensity ☆	1	0.96	0.97	0.96	0.90	0.93	0.92	0.91	0.95	0.97		
	Production activity index	1	1.09	1.06	1.07	1.09	1.05	1.03	1.03	1.00	1.01		
Japanese Bankers Association	CO2 emissions					53.0	53.4	54.7	56.8	54.7	53.9	※ 1.6%	-1.5%
	Energy consumption ☆					36.5	36.7	35.1	33.9	33.8	32.8	-10.1%	-2.8%
The Real Estate Companies Association of Japan	CO2 emissions intensity	1	0.93	0.95	0.99	0.98	0.98	1.01	1.03	1.01	1.07		
	Energy consumption intensity ☆	1	1.06	1.10	1.11	1.11	1.11	1.15	1.07	1.05	1.10		
The Life Insurance Association of Japan	CO2 emissions									12.2	12.7		4.1%
	Energy consumption									7.3	7.4		1.4%
The General Insurance Association of Japan	CO2 emissions					3.6	4.3	4.1	4.1	3.8	3.6	1.6%	-3.4%
	Energy consumption					2.4	2.6	2.4	2.3	2.2	2.1	-13.7%	-4.7%
NTT Group	CO2 emissions	129	159	163	181	215	232	277	314	312	331	156.6%	6.0%
	CO2 emissions intensity ☆	1	0.81	0.81	0.84	0.91	0.96	1.23	1.37	1.40	1.49		
	Energy consumption	84	118	126	132	144	155	172	182	188	197	135.0%	5.0%
	Energy consumption intensity	1.00	0.93	0.97	0.94	0.94	0.99	1.17	1.22	1.29	1.37		
	Production activity index	1	1.51	1.56	1.67	1.83	1.87	1.75	1.77	1.73	1.72		
Japan Foreign Trade Council, Inc.	CO2 emissions ☆			5.8	5.9	5.8	5.6	5.8	6.4	5.6	4.5	※ -22.3%	-18.8%
	Energy consumption			4.4	4.2	3.9	3.8	3.7	3.7	3.3	2.7	-36.9%	-17.7%

Transportation Sector

(10,000t-CO2; 10,000kl, crude oil equivalents)

Industries	☆：target defined in terms of this inde	Fiscal 1990	Fiscal 1997	Fiscal 1998	Fiscal 1999	Fiscal 2000	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Compared to fiscal 1990(%)	Compared to fiscal 2004(%)
The Scheduled Airlines Associations of Japan	CO2 emissions intensity ☆	1	0.91	0.90	0.89	0.90	0.89	0.87	0.89	0.88	0.88		
The Japanese Shipowners' Association	CO2 emissions	3,824	4,286	4,364	4,539	4,708	4,562	4,522	4,757	5,191	5,312	38.9%	2.3%
	CO2 emissions intensity ☆	1	0.86	0.90	0.84	0.85	0.85	0.80	0.78	0.81	0.79		
	Energy consumption intensity	1	0.86	0.90	0.84	0.85	0.85	0.80	0.77	0.81	0.79		
	Production activity index	1	1.30	1.27	1.41	1.44	1.40	1.48	1.60	1.67	1.75		
Japan Federation of Coastal Shipping Associations	CO2 emissions	859	904	876	886	919	934	895	854	787	788	-8.3%	0.1%
	CO2 emissions intensity	1	1.07	1.09	1.09	1.07	1.08	1.07	1.10	1.01	1.04		
	Energy consumption	314	330	320	323	335	340	326	311	287	287	-8.6%	0.1%
	Energy consumption intensity ☆	1	1.07	1.09	1.08	1.07	1.07	1.06	1.09	1.00	1.04		
	Production activity index	1	0.98	0.94	0.95	1.00	1.01	0.98	0.91	0.91	0.88		
Japan Trucking Association	CO2 emissions	∗4 *4,587*	4,628	4,546	4,630	4,772	4,733	4,780	4,719	4,472			
	CO2 emissions intensity ☆	*1*	0.99	0.98	0.96	0.95	0.93	0.93	0.87	0.81			
	Energy consumption	*1,724*	1,739	1,708	1,740	1,793	1,778	1,796	1,773	1,680			
	Energy consumption intensity	*1*	0.99	0.98	0.96	0.95	0.93	0.93	0.87	0.81			
	Production activity index	*1*	1.01	1.01	1.05	1.10	1.11	1.12	1.18	1.21			

Industries	☆：target defined in terms of this index	Fiscal 1990	Fiscal 1997	Fiscal 1998	Fiscal 1999	Fiscal 2000	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Compared to fiscal 1990(%)	Compared to fiscal 2004(%)
All Japan Freight Forwarders Association	CO2 emissions ☆			15.2			14.6	14.6	14.6	14.5	14.3	※ -6.3%	-1.7%
	Energy consumption			5.7			5.5	5.5	5.5	5.5	5.4	-6.3%	-1.7%
Non-governmental Railways Association	CO2 emissions ☆	221	214	208	224	227	226	245	265	255	258	17.0%	1.3%
	CO2 emissions intensity	1	0.86	0.84	0.90	0.89	0.89	0.95	1.02	0.99	1.00		
	Energy consumption	144	159	161	163	156	156	157	158	158	157	9.5%	-0.1%
	Energy consumption intensity	1	0.99	1.00	1.00	0.94	0.94	0.94	0.94	0.94	0.94		
	Production activity index	1	1.12	1.12	1.13	1.15	1.16	1.16	1.17	1.17	1.17		

Note 1: The table presents data on CO2 emissions, energy consumption, and CO2 emissions intensity and energy consumption intensity that has been provided to Nippon Keidanren by industries in the commercial and transportation sectors.

Note 2: Due to a revision of the Caloric Value Table, calculations of emissions from fiscal 2000 on are based on different heat conversion coefficients from those used through fiscal 1999.

Note 3: Japanese Bankers Association and the General Insurance Association of Japan use fiscal 2000 and Japan Foreign Trade Council and All Japan Freight Forwarders Association use 1998 as their base year for calculating change in CO2 emissions and energy consumption.

Note 4: Japan Trucking Association uses fiscal 1996 as their base year, and their figures listed under fiscal 1990 represent actual figures for 1996.

(Attachment 3)

International Comparison of Energy Efficiency in Participating Industries

○ Electric Power (Federation of Electric Power Companies)

Fossil-fired power generation efficiency (electric power output per unit of energy input)

Japan	U.K.	Nordic countries	U.S.A.	Germany	France	China	India
100	99	103	117	110	123	129	135

Source : Data for foreign countries from ECOFYS, *UPDATED COMPARISON OF POWER EFFICIENCY ON GRID LEVEL,* March 2006.
The lower the number, the larger the amount of electricity produced per unit of energy input.

Comparison of CO_2 emissions intensity for the electric power industry ("generating-end")

Japan	France	Canada	Italy	Germany	U.K.	U.S.A.
100	13	53	118	126	121	150

Source: Energy Balances of OECD Countries 2003-2004; The figure for Japan is based on a survey by the Federation of Electric Power Companies of Japan
CO2 emissions intensity is low for France because 80 percent of its electric power is produced through nuclear power generation, and for Canada because 60 percent of its electric power comes from hydroelectric power generation.

○ Oil (Petroleum Association of Japan)

Energy consumption index of refineries (2002)

Japan	Advanced Asian countries (excluding China)	Western Europe	U.S.A. and Canada
100	101	102	113

Source: Data from the results of a survey by Solomon Associates Ltd.
This is a comparison of "energy intensity index," which is Solomon Associates' proprietary benchmarking method. The index is based on throughput equivalents, which is similar in nature to the index used by the oil industry in its voluntary action plan (energy consumption intensity at oil refineries). A lower number indicates higher efficiency.

○ Iron and Steel (Japan Iron and Steel Federation)

Integrated steelworks energy consumption intensity

Japan	South Korea	EU	China (large scale)	China (whole country)	U.S.A.	Russia
100	105	110	110	120	120	125

Source : Data from Korea Iron & Steel Association, China Iron and Steel Industries Association, and individual interviews

○ Chemicals (Japan Chemical Industry Association)

Electric power consumed in relation to production of electrolytic caustic soda

Japan	Taiwan	South Korea	China	U.S.A.	Western Europe	Eastern Europe
100	100	100	104	110	119	115

Source : SRI Chemical Economic Handbook; Japan Soda Industry Association, *Soda Handobukku* (Soda Handbook)

○ Paper (Japan Paper Association)

Total energy consumption for paper and paperboard produced (before adjustments for imported and exported pulp)

Japan	U.S.A.	Canada	Sweden	Germany
100	144	134	123	52

Source: Data for Japan from Japan Paper Association follow-up report for 2003, "Sekiyuto shouhi dotai tokei"; for U.S.A. from the American Forest & Paper Association's annual statistics for 2002; for Canada from Forest Product Association of Canada, *Environmental Report 2000-2001;* for Sweden and Germany from Confederation of European Paper Industries, *Energy Profile 2001.*
Since Germany relies largely on recycled pulp and imported pulp, its energy consumption related to pulp production is low. In addition, demand for quality such as whiteness of toilet paper is relatively low in Germany, which can also be considered a factor contributing to low energy consumption.

○ Cement (Cement Association of Japan)

Energy consumption per clinker ton (for 2000)

Japan	Western Europe	South Korea	Central and South	China	U.S.A.	Russia
100	130	131	145	152	177	178

Source: Battelle, *Toward a Sustainable Cement Industry Substudy 8: CLIMATE CHANGE* , 2002.

○ Mining (Japan Mining Industry Association)

Energy consumption intensity of copper refineries

Japan	Europe	Asia	North America	South America
100	133	143	154	202

Source: Sample data collected through interviews. Comparison is of energy consumption intensity (MJ/ton）of copper refineries

○ Aluminum (Japan Aluminum Association)

Energy consumption in the plate rolling process

Japan	Global
100	127

Source: International Aluminium Institute, *LCI Report* ; Japan Aluminium Association, *LCI Report*

(Attachment 4)

Evaluation Committee for the Voluntary Action Plan on the Environment

1. Establishment July 23, 2002

2. Objectives

(1) To confirm that follow-up surveys for the Voluntary Action Plan on the Environment (Measures against Global Warming) are performed properly and to evaluate their transparency and credibility from an independent standpoint.

(2) To identify areas for improvement regarding the follow-up surveys for the Keidanren Voluntary Action Plan on the Environment (Measures against Global Warming), so as to contribute to further improving transparency and credibility.

3. Results of activities

The evaluation of the past four follow-up surveys (fiscal 2002, fiscal 2003, fiscal 2004 and fiscal 2005) was conducted from the following perspectives.

(1) To assess whether the processes for the collection, aggregation and reporting of data by the industries participating in the follow-up surveys, and the aggregation of the data reported by the participating industries, were implemented properly.

(2) With respect to the follow-up system as a whole, to make recommendations concerning aspects that should be improved in order to increase transparency and credibility.

A Voluntary Action Plan Evaluation Report was prepared and released to the public three times in March 2003, April 2004, April 2005 and April 2006.

4. Members of the Evaluation Committee (as of 13 December, 2006)

Chairman: Yoji Uchiyama (Professor, Graduate School of Systems and Information Engineering, Institute of Engineering Mechanics and Systems, University of Tsukuba)
Members: Tadashi Aoyagi (Senior Research Fellow, Mitsubishi Research Institute Inc.)
Kiyoe Asada (President, Women's Energy Network)
Hiroyuki Sato (Director-General, Green Purchasing Network)
Masaki Mashita (Advisor, Forest Management Association of Japan)
Ryuji Matsuhashi (Professor, Department of Environment Systems, Graduate School of Frontier Sciences, The University of Tokyo)
Kanji Yoshioka (Professor Economics, Keio Economic Observatory, Keio University)

Reference: The Formulation of the Keidanren Voluntary Action Plan on the Environment: History and Aims

1. History

A step ahead of the Earth Summit in 1992, Nippon Keidanren (then known as Keidanren) formulated the Keidanren Global Environment Charter in 1991. Guided by a basic philosophy that the addressing of environmental problems is essential to corporate existence and activity, it proclaimed a course of voluntary and active efforts directed at environmental conservation.

In order to link the philosophy of the Global Environment Charter to concrete action, in 1996 the Keidanren Appeal on the Environment was announced. With respect to measures to counter global warming, Nippon Keidanren then announced the formulation of a voluntary action plan to promote practical and effective efforts by the business community.

This led to the formulation of the Keidanren Voluntary Action Plan on the Environment (renamed the Voluntary Action Plan on the Environment in fiscal 2002) in the following year, 1997. Today, 57 industrial organizations and companies are participating in the plan, through which they are actively addressing not only global warming but also the problem of waste. With respect to measures to counter global warming, the uniform goal is the "reduction of CO_2 emissions from participating industries in the industrial and energy-conversion sectors in fiscal 2010 to below the levels of fiscal 1990."

2. Goals

The causes of long-term environmental problems that occur globally, such as global warming, are to be found in business activities of all kinds and in many aspects of our daily lives. In consequence, they cannot be addressed by restricting activities uniformly, and it is also difficult to deal with them adequately through conventional means such as regulations and the levying of taxes and charges. In view of this, in place of the conventional regulatory measures that have been effective in the past, such as the anti-pollution measures of the 1970s, today it is to voluntary efforts that we must look to have an impact on problems occurring on a global scale. The rationale underlying voluntary efforts is that they constitute the most effective countermeasures, because business people themselves, who have the best grasp of the actual situation in each industry, can take technical trends and other factors affecting management judgments comprehensively into consideration, and draft and implement the most cost-effective measures. In addition, Nippon Keidanren conducts a follow-up every year of the state of progress of the Voluntary Action Plan on the Environment, and releases its finding publicly through the Internet and other means.

Therefore, the Voluntary Action Plan on the Environment comprises four steps that are repeated each year: (1) the setting of targets; (2) the implementation of efforts to attain those targets; (3) the regular follow-up of the state of progress of those efforts; and (4)

the public disclosure of the follow-up results through the Internet and other means. This mechanism spurs continuous improvements, and is able to prevent the non-achievement of targets.

The Japanese government's Kyoto Protocol Target Achievement Plan positioned the Keidanren Voluntary Action Plan on the Environment as the plan that will play a central role in the industrial and energy-converting sectors' efforts toward the achievement of targets. It praised the Voluntary Action Plan stating that the merits of voluntary approaches is that they do not involve procedural costs and each entity can develop its own outstanding measures through original and innovative efforts. The hope that companies will take further advantage of these merits in their own voluntary action plans was also expressed.

The progress of the voluntary action plans is reviewed annually by the relevant government councils, and reports are also made to joint meetings of the councils concerned with domestic measures to address global warming.

3. Future Policy

Nippon Keidanren will continue to require the participating industries to ensure the steady implementation of the plan's countermeasures, and to devote its full energies to the achievement of its overall uniform goals. It will also maintain its efforts to ensure a continuous improvement in transparency and credibility on the basis of the reports of the Evaluation Committee for the Voluntary Action Plan on the Environment.

For their part, companies will expedite their voluntary efforts, not only undertaking measures relating to their own business activities, but also contributing to problem-resolution both within Japan as a whole and globally.

[Addendum: Measures on Waste]

When the Keidanren Voluntary Action Plan on the Environment was formulated in 1997, waste-related measures were included as another core component. Targets were laid down for individual industries, and measures undertaken on a voluntary basis were promoted. In 1999, Keidanren laid down a uniform target for the entire industrial sector of 15 million tons (25% of the amount in fiscal 1990) as the quantity of final disposal of industrial waste in fiscal 2010. Follow-up surveys of the state of progress towards achieving that target are conducted annually.