KIKO NETWORK 気候ネットワーク

Fact sheet of the Keidanren Voluntary Action Plan

Summary

The Keidanren Voluntary Action Plan on the Environment is an environment action plan devised by the Nippon Keidanren (Japan Business Federation). The plan makes no commitment to the Japanese government that the target will be met. It started in 1997, and there are 35 industries including energy, mining, manufacturing and construction participating in the plan related to the section on climate change. The plan aims to stabilize CO_2 emissions from fuel combustion and industrial processes at 1990 level by 2010.

However, the 35 industries have selected their own target indices such as gross CO_2 emissions, CO_2 emissions per unit, energy consumption, and energy efficiency. Industries choosing efficiency targets also set arbitrary production levels. The Keidanren plan bundled these industry targets together as one.

This plan is included in the Kyoto Protocol Target Achievement Plan of Japan, but there is no agreement with the government to assure the targets are reached. The Keidanren has not disclosed the basis of the target levels used in the plan, and these have not been discussed with open participation.

The Keidanren has used this voluntary action plan as a reason for opposing the implementation of effective policies in Japan. An assessment should be made as to whether or not the Keidanren plan is better than emission trading or carbon tax.

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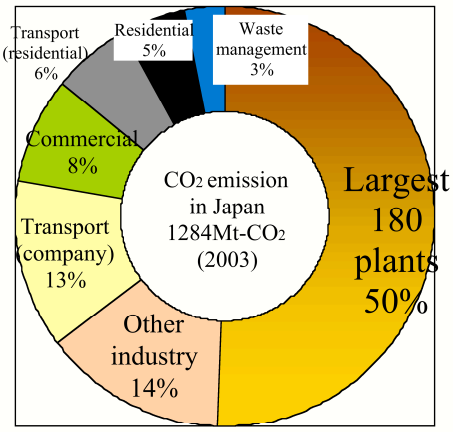
Commentary

- Industries choose convenient indices for setting easier targets.
- Increased coal usage has been allowed, which is a runs counter to efforts attempting to mitigate global warming.
- Energy efficiency of Japanese industries is by no means high. Efficiency levels of individual factories are unknown.
- Gross targets and efficiency target are mixed together, making it difficult to forecast the achievement of targets, and there are no assurance that targets will be reached.
- Data is not disclosed even in the follow–up results.

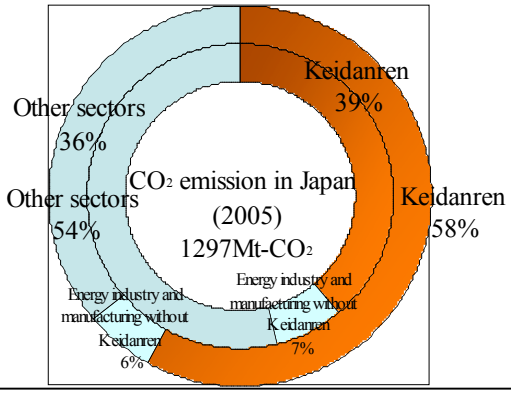
1 Characteristics of the CO_2 emission structure centered on the manufacturing industry in Japan

Fig. Characteristics of the CO_2 emissions structure centered on the manufacturing industry in Japan



Source: METI energy data

Fig. Keidanren's share of CO_2 emissions in Japan



Outer circle: direct emissions (normal statistics, IPCC inventory)
Inner circle: power plant emissions divided each final consumption sector
Data: CO_2 from Keidanren: Keidanren press release
CO_2 from power plants: Council of METI
Other CO_2 emission: Ministry of Environment NIES inventory office

2 The best energy efficiency among developed countries is achieved due to energy conservation in residential and transport sectors in Japan

Japan's energy efficiency is derived from homes and transport with low energy consumption. The energy efficiency of industry is as same as that of Europe and USA.

Fig. CO_2 emissions per GDP (exchange rate)

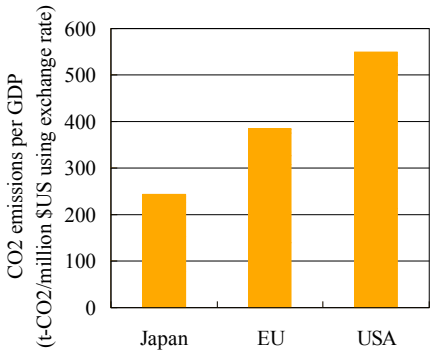
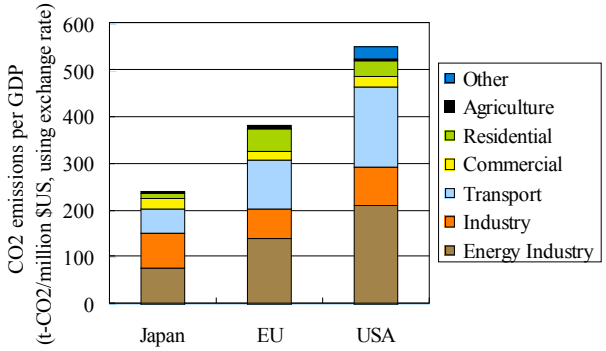


Fig. CO_2 emissions per GDP (exchange rate) by sector



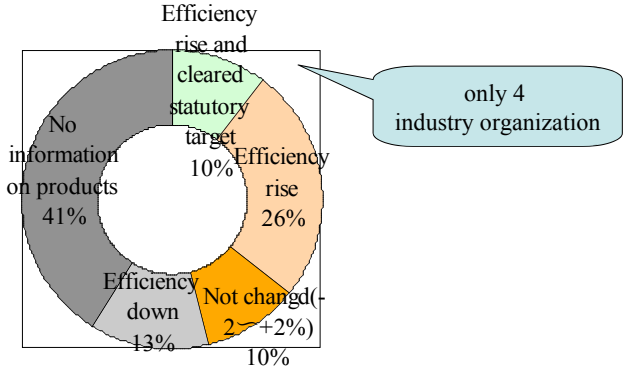
Source: CO_2 emissions: National inventory 2004
GDP: Energy balances of OECD counties 2003-2004

3 Industries choose arbitrary indices and set the easier targets

1) Convenient indices

The 35 industries selected the most convenient indices from gross CO_2 emissions, CO_2 emissions per unit, energy consumption, and energy efficiency, in order to enable them to achieve targets more easily. The production index is also selected arbitrarily to be based on either volume or value. Some of the index cannot be verified.

Fig. Energy efficiency change in 35 industries



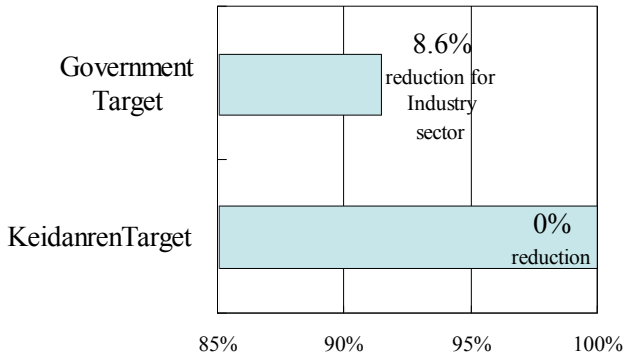
Source: METI & ME council Keidanren action plan follow up data

2) Target lower than that of government's plan

While the target for industrial sector is an 8.6% reduction from 1990 level in the Kyoto Protocol Target Achievement Plan, the target of the Keidanren plan is 0%.

Some industries selected gross CO_2 emissions because their production has decreased. On the other hand, some industries chose CO_2 emissions per unit and set the production index higher than recent trends.

Fig. Keidanren target and industrial sector target on government policy

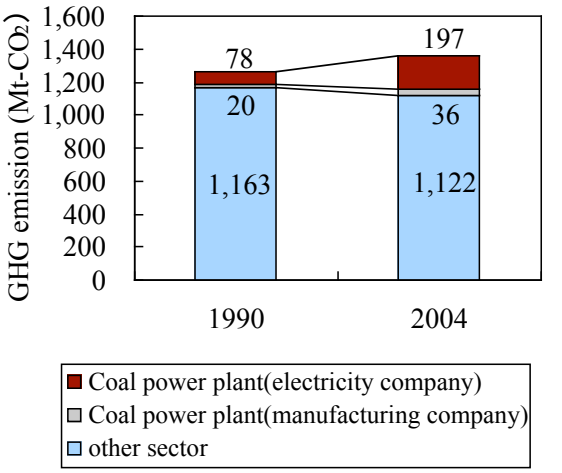


4 Dramatic increase in coal usage runs counter to environmental efforts

1) Since 1990, electricity generated by coal-fired power plants increased threefold

Electric power companies increased coal-fired power plant generation threefold since 1990, which has led to a 10% increase of CO2 emissions in Japan. In addition, the usage rate of coal-fired power plants is 70% while that of natural gas power plants is below 50%.

Fig. Trend of GHG emissions and increase of coal power

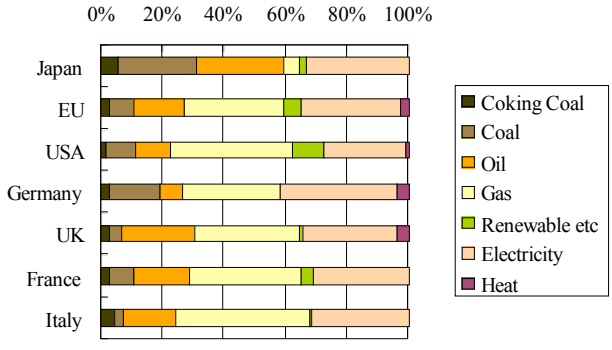


Source: METI Energy Balance Statistics

2) High usage of coal in Japanese industry

Japanese industries use more coal than industries in Europe and the US. Furthermore, Japanese industries increased coal usage in their own power plant and thermal facilities. The Keidanren target is achievable even while increasing coal usage, which should be avoided.

Fig. Share of energy on industry

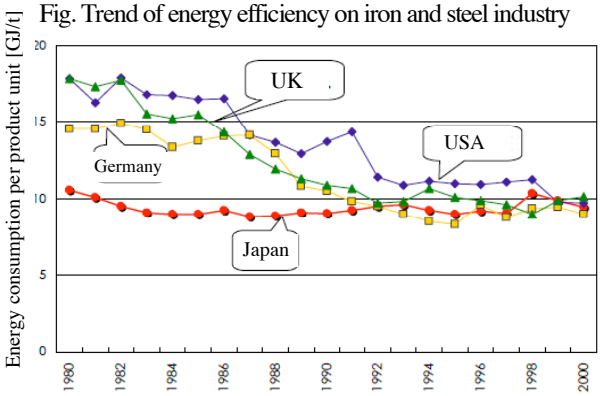


IEA energy balance of OECD countries

5 Is Japanese industry really the most energy efficient?

1) Energy efficiency of some industries is same as in Europe and the USA. The chart indicates comparison of energy efficiency for the iron and steel industry in the USA, the UK, Germany and Japan. After the oil crisis, energy efficiency of Japanese industries was better than other countries, but the other countries have reached the same level as Japanese in recent years.

Fig. Trend of energy efficiency on iron and steel industry

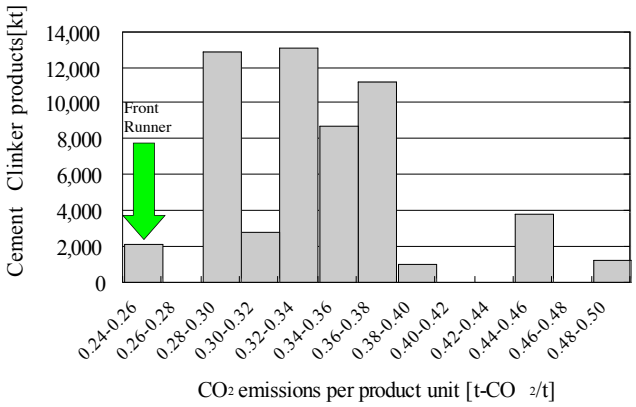


Source: Ministry of Environment 2004/1/3

2) Energy efficiency varies among industry sites

The chart shows efficiency of different cement factories (estimate by Kiko Network). Keidanren has not disclosed such data for individual factories. In the UK and the Netherlands, governments and industries have made agreements, requiring that the best available technology is implemented. The Japanese government follows up the Keidanren Plan, but is not able to ask for improvements to be made in each factory.

Fig. Efficiency of cement factories in Japan



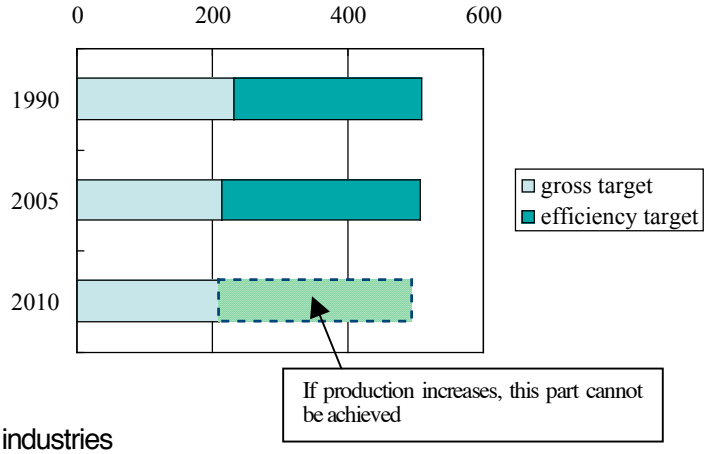
CO_2emissions: Kiko Network estimate from METI energy data
Production data: cement yearbook

6 Risk of not achieving the target

1) Gross target and per unit target

The Keidanren target includes mixture of both gross and efficiency targets. Many industries expected to undergo an increase in production use efficiency targets, and if production increases for such industries, the Keidanren's gross target cannot be achieved.

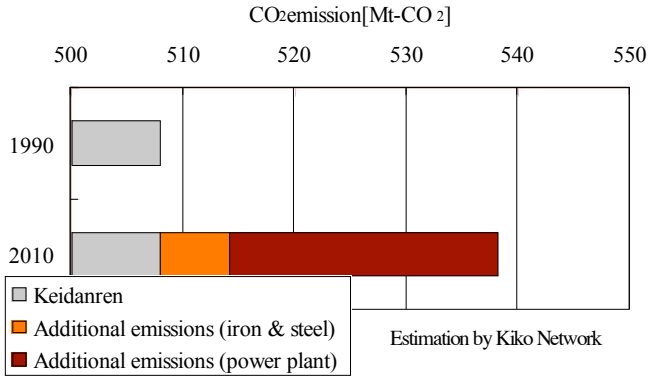
Fig. Emissions share of gross target and efficiency target



2) Risk of not achieving targets, in steel and electricity industries

The major CO2 emitters in the Keidanren plan may not achieve their targets. This is because the steel industry seems to have set incorrect production forecasts and the electricity industry is depending on raising the operating rate of nuclear power plants to the unprecedented level of 87-88%. The operating rate has been 60-70% since 2002.

Fig. Risk of not achieving Keidanren targets



Estimation by Kiko Network

3) No backing from policy

The Japanese government has positioned the Keidanren plan as the Kyoto Protocol Target Achievement Plan without providing any assurances for achieving the target. As a result, the government has put off the implementation of more efficient policies such as carbon tax and emission trading.

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