

(Attachment to Policy Proposal)

Trajectory of Japanese Business Communities' Efforts

to Counter Global Warming

— Promotion of Voluntary Measures —

October 18, 2016

Keidanren

1. Steps taken by Japanese business as voluntary actions

- **Japanese business has always taken a lead in tackling global warming well in advance of government's actions**

Japanese business learned valuable lessons from the experiences of tackling pollution problems during the rapid economic growth period. Since then, we exerted extensive efforts in preventing pollution and in improving safety and hygiene, with the introduction of the world's most advanced measures. By the late 1980's, global environmental issues as typified by climate change have emerged as new challenges.

To address climate change issues, the Earth Summit (United Nations Conference on Environment and Development) was held in Rio de Janeiro, Brazil, in 1992. Prior to the Rio's Earth Summit, Keidanren established "Keidanren Global Environment Charter" in April 1991, recognizing the need to exert serious efforts in resolving such global environmental challenges to promote healthy and sound development of economy and society in Japan. The Charter sets the basic philosophy for corporations to address environmental issues, and identified 24 items of concrete action guidance for 11 fields, including: (i) the development of management policy to address environmental problems; (ii) the development of inter-company system; (iii) the consideration of environmental impacts, (iv) the promotion of technological development, and (v) the

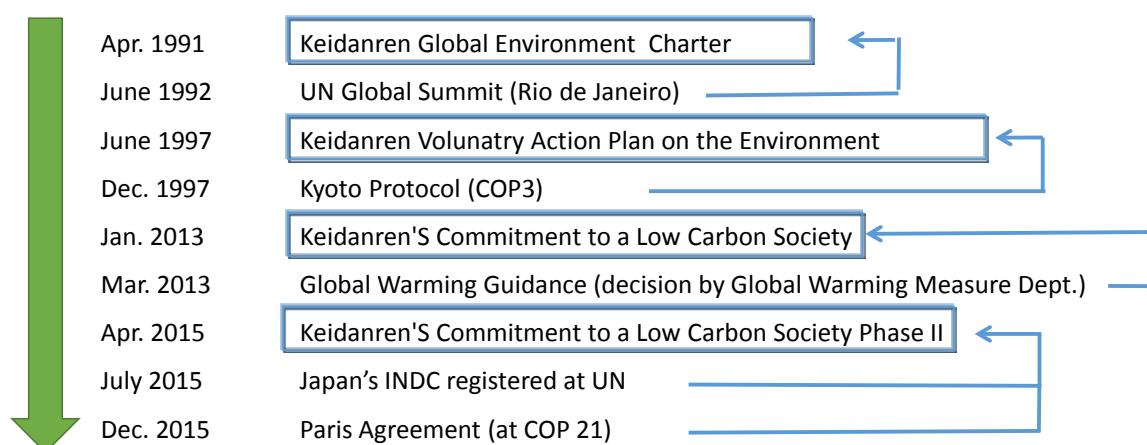
promotion of technology transfer.

With the adoption of “Global Environment Charter”, Keidanren has further developed various measures especially in the following three areas: (i) global warming countermeasures; (ii) the development of a sound material-cycle society, and (iii) the conservation and protection of the nature.

As for global warming countermeasures, the “Kyoto Protocol” was adopted in COP 3 in December 1997. Prior to that, Keidanren acted in advance of international trend to tackle global warming countermeasures by establishing the “Keidanren Voluntary Action Plan on the Environment (Section on Global Warming Measures)” in June 1997, with the participation of 37 industries and corporations (expanded to 61 industries and corporations by 2012).

Since then, Keidanren has taken independent actions well in advance of Japanese government’s policy-making for global warming countermeasures. (Fig. 1)

Fig. 1: Keidanren’s steps toward the development of global warming countermeasures and the actions by the Government



2. Achievement of Keidanren Voluntary Action Plan on the Environment

- Achieved much greater reduction than original targets set by the Keidanren Voluntary Action Plan on the Environment
- Japanese business community has greatly contributed to achieving Kyoto target by executing their Action Plan
- About half of participating industries raised targets voluntarily

These voluntary actions taken by business community under “Keidanren Voluntary Action Plan on the Environment” have resulted in significant successes. Those 34 industries of industrial and energy conversion sectors participated in “Keidanren Voluntary Action Plan on the Environment” set up the industry-specific target of “limiting” industrial average CO₂ emissions “to the level as 1990”, through PDCA cycle during the First Commitment Period of the Kyoto Protocol (year 2008 – 2012). The result showed the significant reduction of “12.1% decrease from 1990 level”, well over its initial reduction target. (Fig. 2)

As these 34 participating industries of industrial and energy conversion sectors shared close to 50% of Japan’s total CO₂ emissions in 1990, “Keidanren Voluntary Action Plan on the Environment” was a great success, contributing to Japan’s compliance with its Kyoto Protocol target of 6% emission reduction from 1990 level. (Fig. 3)

Moreover, the number of participating industries, 37 in 1997, the initial year of “Keidanren Voluntary Action Plan on the Environment” steadily grew to 61 industries by 2012, the final year of the Action Plan. Among those 61 participating industries, 29 industries have raised their targets for 41 times in total (Fig. 4) based on Keidanren’s guideline “to anticipate the adoption of higher target if results provided greater success

than original plans."

Fig. 2: CO₂ emissions of 34 industries in Industrial and Energy Conversion Sector

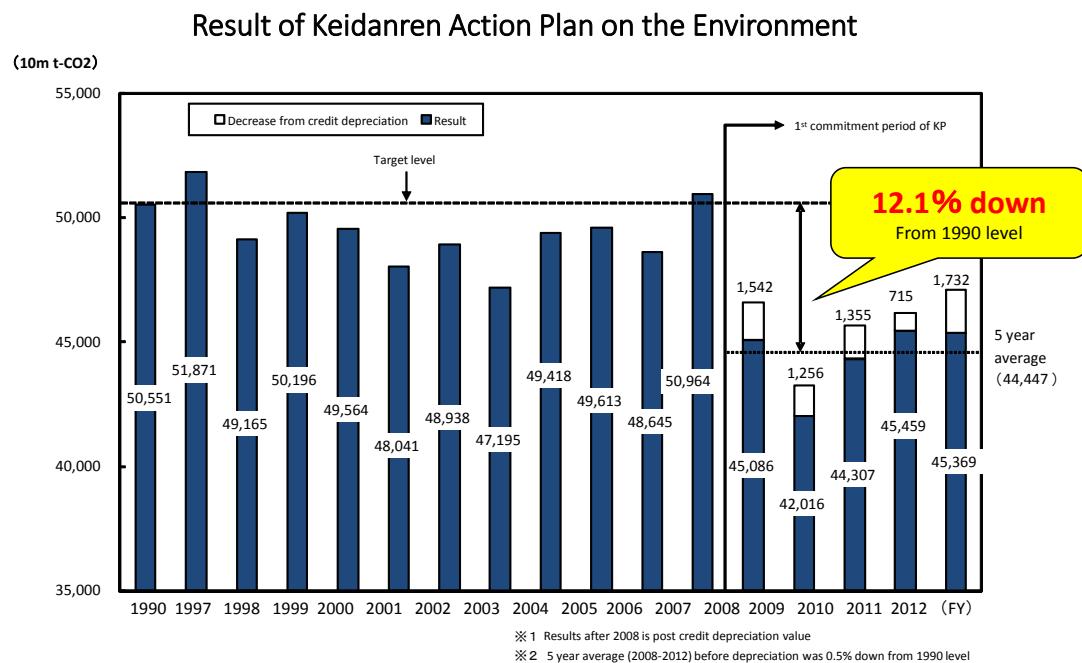


Fig. 3: Share of CO₂ emissions from participating industries in Japan's total emissions (1.14 billion tons)

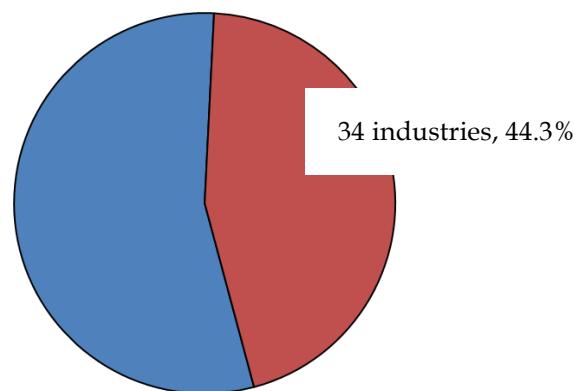


Fig. 4: Number of participating industries and their target raises for “Keidanren Voluntary Action Plan on Environment”

Changes in the number of sectors and corporations

Sectors	Year 1997	Year 2012
Industry/energy conv.	28 industries	34 industries
Business sector	6 industries	14 industry/corps.
Transport sector	3 industries	13 industry/corps
Total	37 industries	61 industry/corps

Among them, 29 industries raised target (41 times total)

<ul style="list-style-type: none"> - Flat Glass Association of Japan - KDDI - Japan Federation of Housing Organization. - Japan Sugar Refiners Association - Petroleum Association of Japan - Limestone Association of Japan (2 times) - Cement Association of Japan - Japan Freight Forwarders Association (2 times) - Japan Trucking Association - Scheduled Airlines Association of Japan (2 times) 	<ul style="list-style-type: none"> - 4 organizations of electric and electronic industry . - Japan Aluminum Federation - Japan Sanitary Equipment Industry Association - Japan Chemical Industry Association. - Japan Gas Association (3 times) - Japan Federation of Construction Contractors, others - Japan Mining Industry Association - Japan Rubber Manufacturers Association. - Japan Automobile Manufacturers Association. (3 times) - Japan Brass Makers Association 	<ul style="list-style-type: none"> - Federation of Paper Manufacturers in Japan (2 times) - Japanese Shipowners' Association - Japan Association of Rolling Stock Industries - Japan Electric Wire and Cable Makers' Association (3 times) - Japan Department Stores Association (2 times) - Japan Foreign Trade Council - Japan Non-government Railway Association - Brewers Association of Japan. - Real Estate Companies Association in Japan
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3. Comprehensive advancement of “Keidanren’s Commitment to a Low Carbon Society”

- Today, Japanese business promotes “Keidanren's Commitment to a Low Carbon Society”, demonstrating a comprehensive advancement from “Keidanren Voluntary Action Plan on the Environment”
- “Keidanren's Commitment to a Low Carbon Society” aims to realize global and long term reduction of emissions with four pillars: (i) domestic business emissions reduction, (ii) stakeholder-oriented cooperation, (iii) international contribution, and (iv) innovative technology development

The first commitment period of the Kyoto Protocol ended in 2012, and the Government of Japan expressed their intention of not-participating in the second commitment period (2013 to 2020). Keidanren, on the other hand, actually tightened the rein on its global warming countermeasures, and in January 2013, Keidanren developed and announced its “Commitment to a Low Carbon Society (Phase I)” evolved from “Keidanren Voluntary Action Plan on the Environment”, leading businesses in the world. Moreover, Keidanren has started “Keidanren Commitment to a Low Carbon Society (phase II)” from April 2015, in view of year 2030.

Industries and companies participating in “Keidanren’s Commitment to a Low Carbon Society” put daily efforts to promote long term global warming countermeasures, with a focus on PDCA cycle, while adopting 4 pillars: (i) domestic business emissions reduction, (ii) stakeholder-oriented cooperation, (iii) international contribution, and (iv) innovative technology development. (Figure 5 and 6)

Fig. 5: Overview of “Keidanren’s Commitment to a Low Carbon Society”

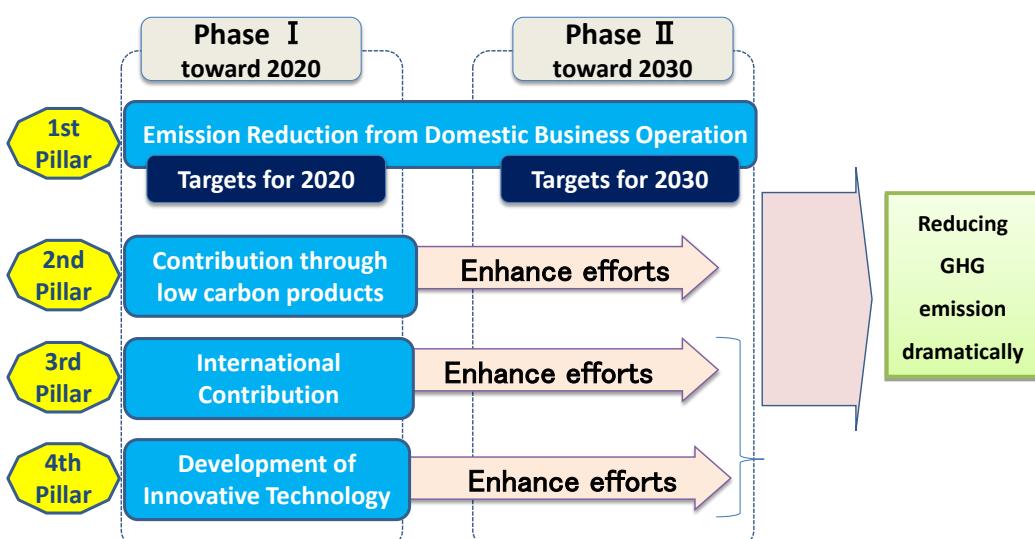
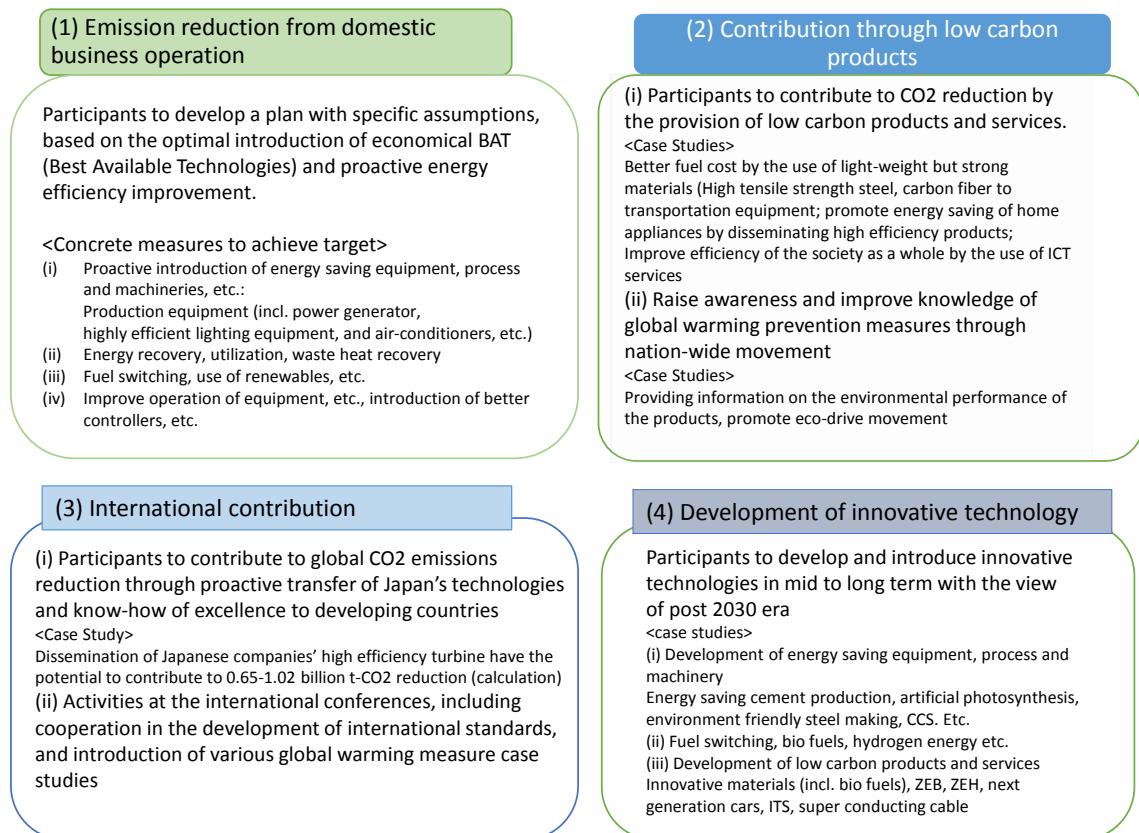


Fig. 6: Outline of 4 pillars for “Keidanren's Commitment to a Low Carbon Society”

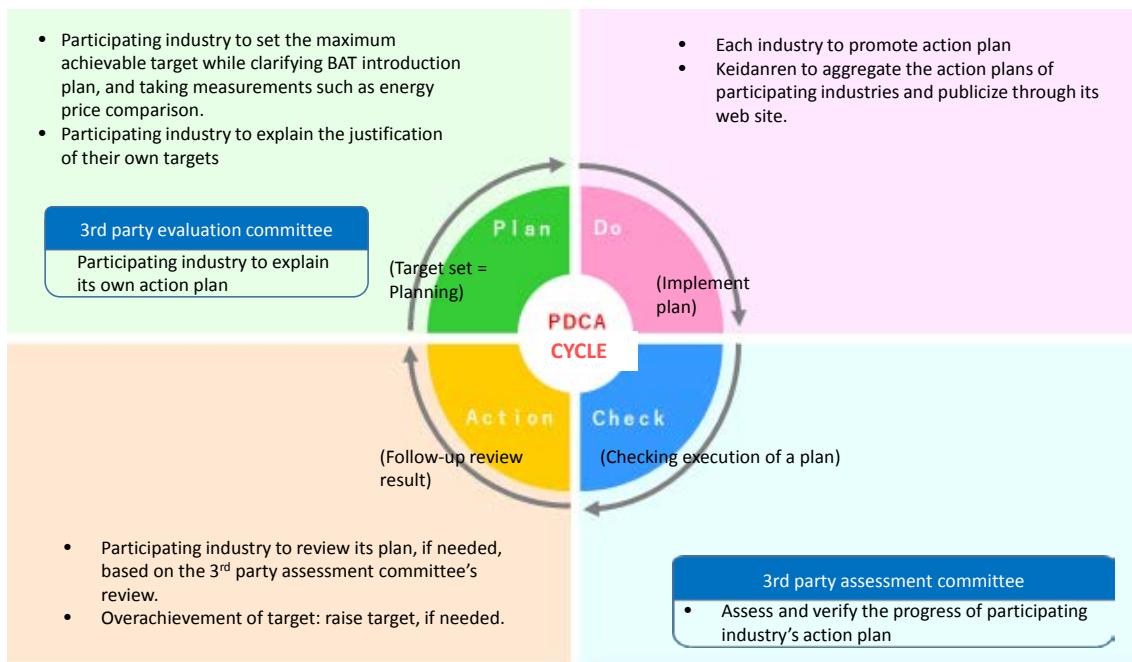


4. PDCA cycle

➤ Key for the success of Japanese business community's voluntary action program is the continuous and incessant deployment of PDCA cycle

Each participating industry/company of “Keidanren Voluntary Action Plan on the Environment”, and “Keidanren's Commitment to a Low Carbon Society” is to prepare and commit to (pledge) own action plan with self-setting reduction target, execute the plan, receive a third party evaluation and verification (review) of the progresses made, then revise its action plan if necessary (including the raising of targets). By going through such series of processes called PDCA cycle, they have successfully achieved significant GHG reduction as mentioned before. (Fig. 7)

Fig. 7: PDCA in Keidanren's "Action Plan on the Environment" and "Commitment to a Low Carbon Society"



5. Domestic global warming countermeasures and international framework

- The voluntary actions by Keidanren have been construed as the pillar of Japan's global warming countermeasures.
- The new international framework of "Paris Agreement" has adopted the "Pledge and Review" approach introduced and implemented by Keidanren's voluntary framework

These voluntary frameworks of Japanese business community are considered as the most effective and efficient approach to concur economic activities with global warming countermeasures, since unlike the regulatory measures, the targets are to be self-set by the industries and companies that are most knowledgeable about the future prospects regarding their output and introduction of BATs.

Therefore, the voluntary actions taken by Keidanren have been construed as the pillar of global warming countermeasures for Japan. Every year, their importance is

augmenting, as proven by the fact that the Japan's "INDC" registered to the UN clearly states the "Keidanren's Commitment to a Low Carbon Society". (Figure 8)

Fig. 8: Placements of Keidanren's voluntary actions in Japanese governments' global warming countermeasures (abstract)

"Kyoto Protocol Target Achievement Plan" (rev.) (Mar. 28, 2008 cabinet)
<p>Keidanren's Voluntary Environmental Action Plan had a central role in the industrial measures. The voluntary approaches can provide advantages, such as enabling each entity to select best measure using creative ideas, possibility to encourage seeking higher target, and less process cost for both government and executing entities, thereby further providing more advantages if adopted by business entities.</p>
"Tentative policy for global warming measures" (Mar. 15, 2013 by GW measure HQ)
<p>For energy source CO2 measures for each sector, must proceed with the assessment and verification of voluntary measures taken by businesses based on "Low Carbon Society Action Plan", while advancing various supportive measures as well as institutional responses including the development, announcement and operation of emission control guidelines.</p>
"Japan's INDC" (July 17, 2015, GW measure HQ decision, registered at UN)
<p>(It stated "Low Carbon Society Action Plan" as the basic measures to bottom up industrial GHG reduction target)</p>
"Global Warming Measures Plan" (May 13, 2016, Cabinet decision)
<p>Industries, led by Keidanren have actively taken initiatives to develop GHG emission reduction plan with great successes. In order to steadfastly implement emission reductions to achieve the targets of global warming measure plan, Businesses will continue to take voluntary measures to take a central role in industrial measures.</p>

(Provisional Translation by Keidanren)

Moreover, the "Paris Agreement" adopted at COP 21 in December 2015, incorporates a "pledge and review" approach, where each participating party commits to their NDCs (pledge), and improve the effectiveness of national measures through periodical international review (review). This is the very same approach Japanese business community has introduced and implemented for many years through the PDCA cycle in Keidanren's voluntary actions. (Fig. 9)

We, Keidanren believe that, by communicating and sending out information and

knowledge Japan has earned and nurtured through Keidanren's voluntary actions, we can greatly contribute to the international community, as it will certainly elevate the level of international fairness and effectiveness in the global warming countermeasures taken by each party under the Paris Agreement.

Fig. 9: Voluntary measures and “Pledge and Review” of Paris Agreement

