

The Japanese Business Community's Initiative to Tackle Climate Change

November 2013

KEIDANREN

1. What have we done so far?

~Promotion of the Keidanren Action Plan~

1997~2012

The History of Keidanren Action Plan on the Environment

April 1991 **Keidanren Global Environment Charter**

- Each company must aim at being a good global corporate citizen, recognising that grappling with environmental problems is essential to its own existence and its activities.

July 1996 **Keidanren Appeal on Environment**

- We will take a voluntary, resolute and responsible approach in dealing with important tasks existing in the environmental field.

June, 1997 **Keidanren Action Plan on the Environment**

- **Global Warming Measures**
- **Waste Disposal Measures**

* December 1997 Adoption of Kyoto Protocol @ COP3

 The progress of the Action Plans is reviewed annually.

KEIDANREN Action Plan (= Social commitment)

KEIDANREN Action Plan on the Environment is a self-binding programme to reduce CO2 emissions, proactively participated by 34 industries in industry and energy-converting sectors.

➤ Programme-wide target:

'to suppress the CO2 emissions in 2008-2012 (on average) from industrial & energy-converting sectors below its 1990 level'

** The CO2 emissions of 34 participating industries accounts for 44% of that of Japan's, 83% of that of industrial and energy-converting sectors.*

➤ Transparent and credible PDCA (Plan-Do-Check-Act) cycle:

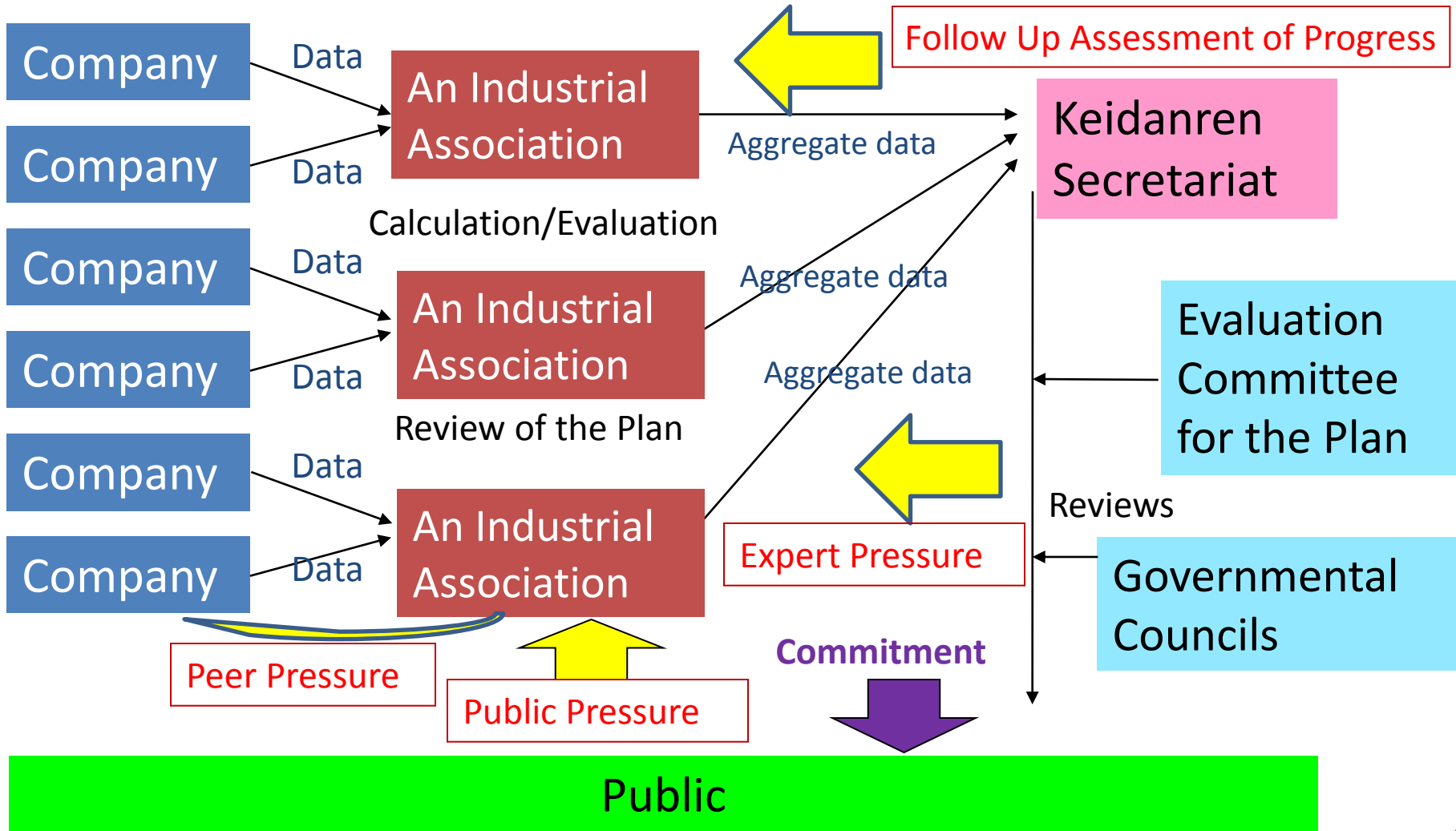
The progress is reviewed annually by a third-party Evaluation Committee as well as the Government Councils (MOE/METI).

➤ Quoted in the Government's Kyoto Protocol Target Achievement Plan (Government Decision: 28 March 2008) :

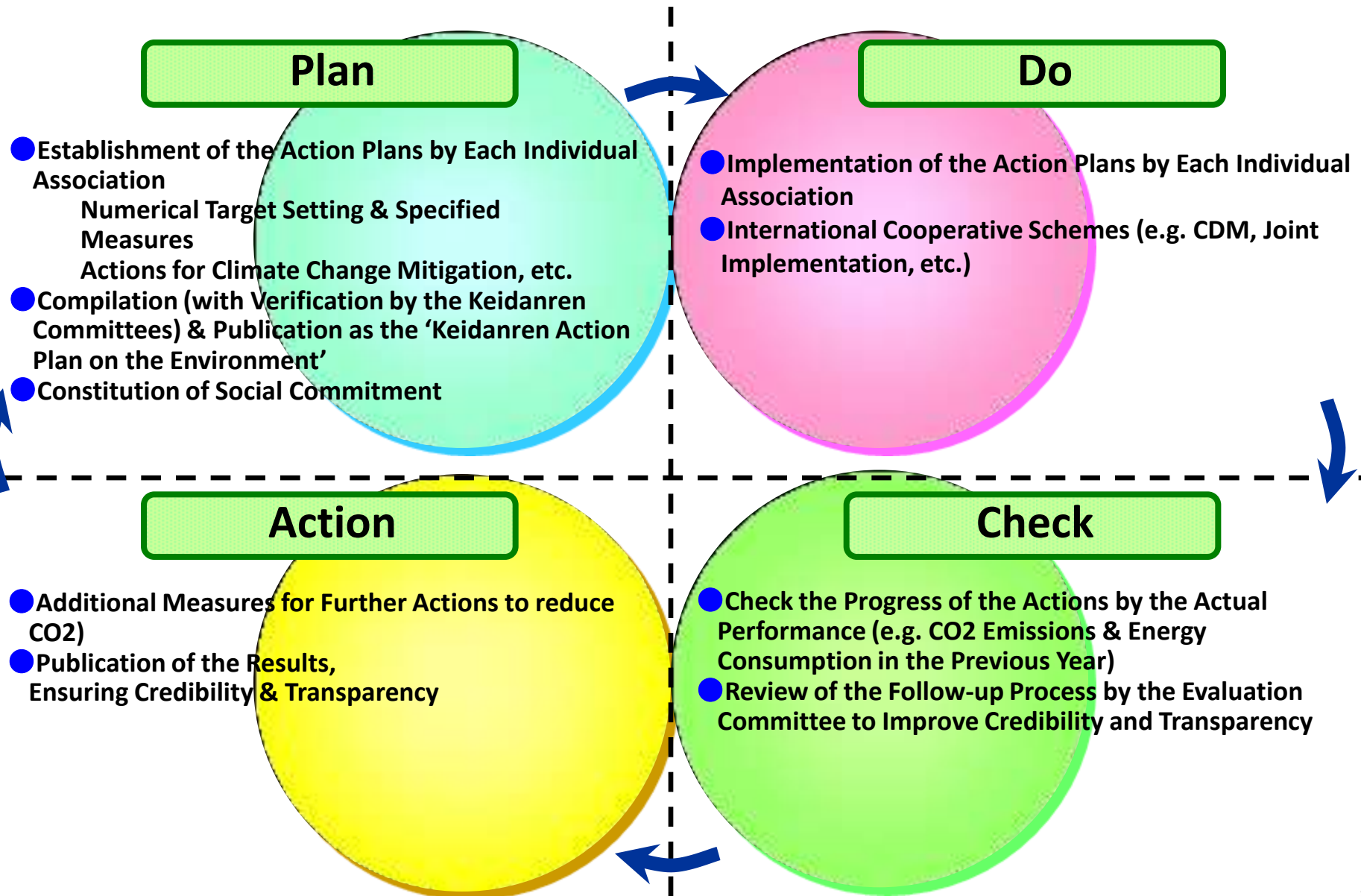
Keidanren Action Plan is "playing a central role in countermeasures in the industrial community".

Review Process

The assessment of progress is conducted every year. The overall performance is publicised by Keidanren Secretariat.



P-D-C-A cycles of the Keidanren Action Plan

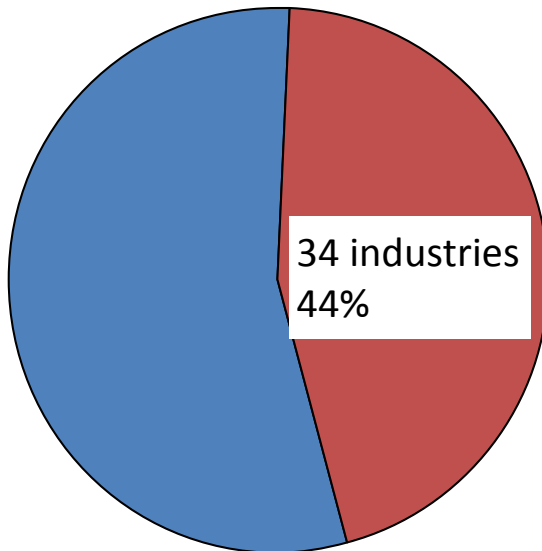


Coverage of the Action Plan

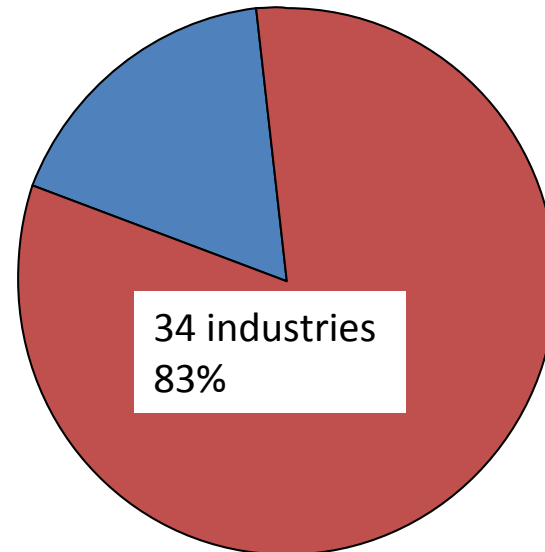
The coverage of the Action Plan is significantly large: the CO₂ emissions of 34 industries accounts for 44% of that of Japan's.

- 34 industries participated (566.6Mt-CO₂)

**Ratio against the total
1990 CO₂ emissions
(1,143.4Mt-CO₂)**

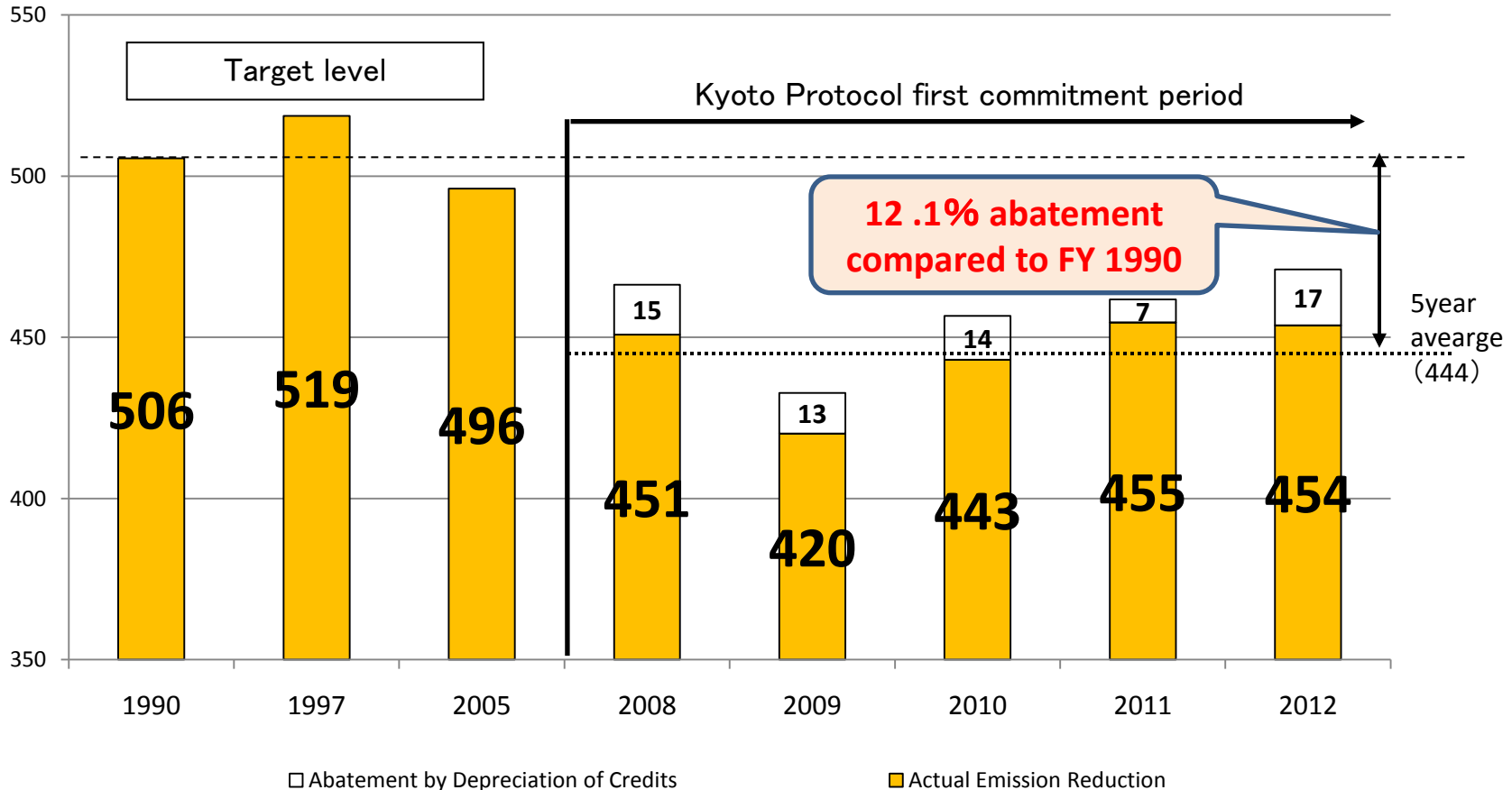


**Ratio against the 1990 CO₂
emissions from the entire
industrial and energy-converting
sectors (612.2Mt-CO₂)**



CO2 Emissions by 34 Industries in the Industrial and Energy Converting Sectors

◆ With regard to the uniform target (endeavor to reduce average CO₂ emissions from the industrial and energy-conversion sectors between fiscal 2008 and 2012 to below the level of fiscal 1990), participating industries marked a 12.1% reduction, a significant achievement far beyond the initial target.



The Attribution of the Follow-Up

- ◆ An attribution analysis was made of the 10.3% decrease in CO2 emissions between fiscal 1990 and fiscal 2012 for the 34 industries in the industrial and energy-conversion sectors. With the increase of production activity and CO2 emissions factor between fiscal 1990 and fiscal 2012, CO2 emissions increased 1.7% and 2.1%, and the reduction of CO2 emission per unit factor contributed to decreases of 14.1%.
- ◆ The low-carbon rate (the improvement of the CO2 emission factor and the improvement of CO2 emissions per unit of output compared to fiscal 1990), which reflects companies' efforts to reduce emissions, was -12.0%.

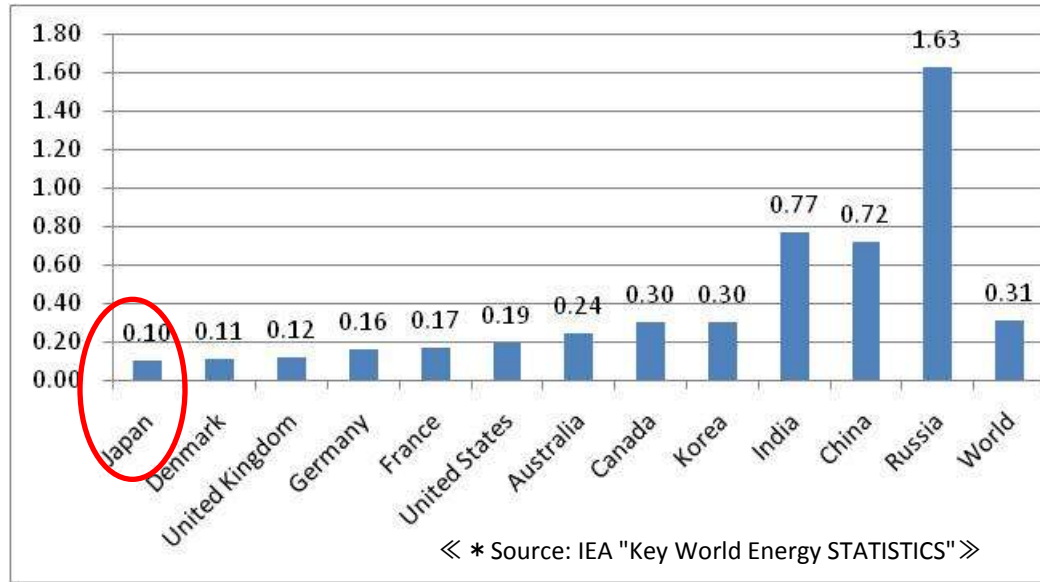
	Comparison to FY 1990
Change in production activity*1	+1.7%
Change in CO2 emission factor*2	+2.1%
Change in CO2 emissions per unit of output (efficiency improvement)	-14.1%
Total	-10.3%

Efficiency improvement is the driving force to reduce CO2 emissions

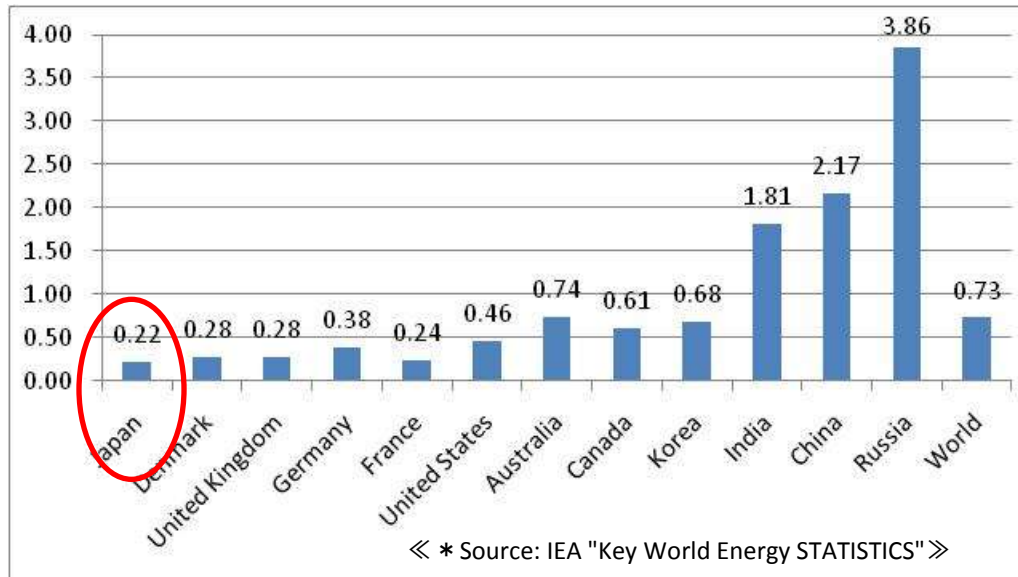
*1 For change in production activity, the indices with the closest relation to energy consumption in each industry were selected.

*2 CO₂/MJ for fuel use and CO₂/kWh for electricity consumption.

Total primary energy supply per real GDP (2009) * US dollar, 2000 standard rate



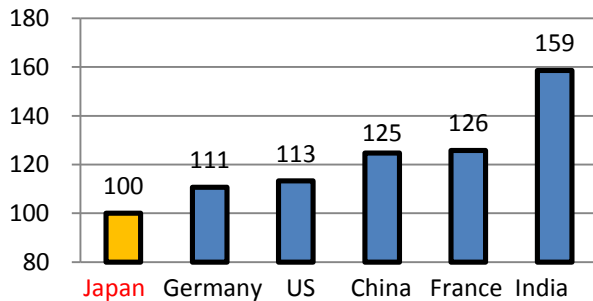
CO₂ emission per real GDP (2009) * US dollar, 2000 standard rate



International Comparisons of Energy Efficiency in Industrial and Energy-conversion Sectors

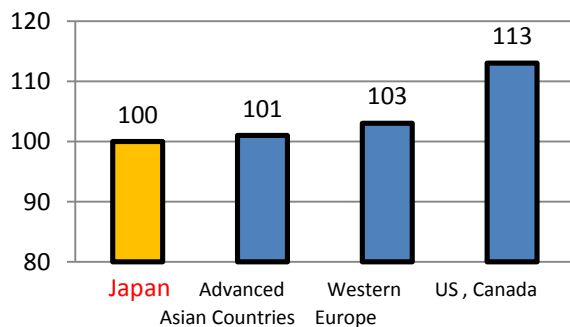
- Japanese industry has been a forerunner in energy-saving by launching efforts in the 1970s following the oil shocks.
- According to the international comparisons of energy efficiency conducted by participating industries as part of the Fiscal 2011 Follow-up, world-leading levels of energy efficiency have been achieved once again in participating industries that carried out comparisons.
- These also illustrate the limit of potential for further domestic reduction in Japan.

Energy required to produce 1kWh of electricity through thermal power generation (2010)



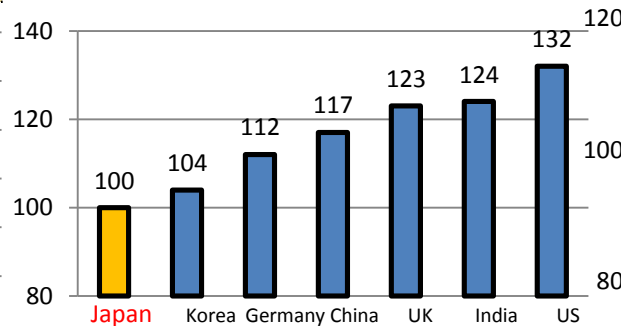
出典: INTERNATIONAL COMPARISON OF FOSSIL POWER EFFICIENCY AND CO2 INTENSITY (2013) (ECOFYS)

Energy required to produce 1 kl of oil products (2004)



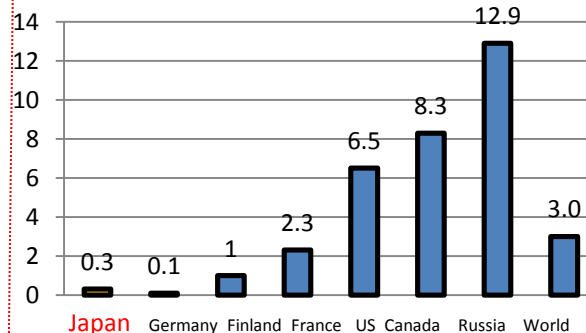
Source: Data from the results of a survey by Solomon Associates Ltd.

Energy required to produce 1 ton of iron (2010)



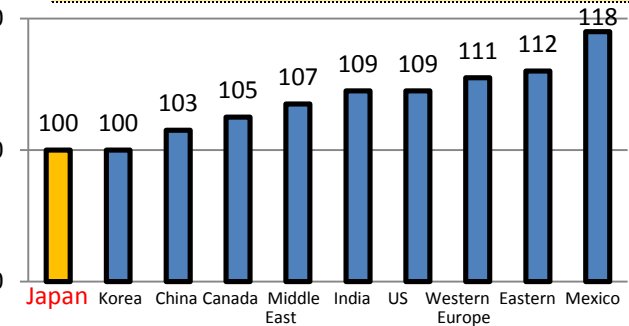
Source: Research Institute for Innovative Technology for the Earth, "International Comparison of Energy Efficiency"

Energy saving potential by adopting BAT (Pulp and Paper) (GJ/T)



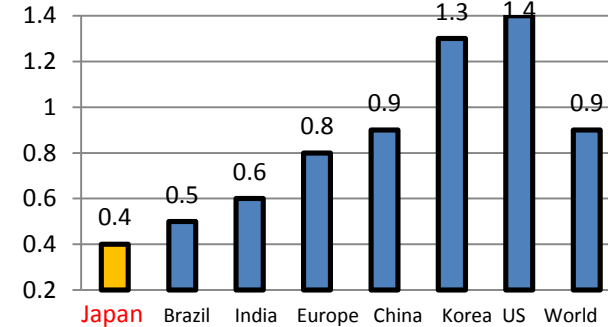
Source: IEA Energy Technology Perspective 2012

Energy required to produce 1 ton of electrolytic caustic soda (2009)



Source: CMAI "Capacity Database" (2009), Japan Soda Industry Association "Soda Handbook" (2009)

Energy saving potential by adopting BAT (Cement) (GJ/T)



Source: IEA Energy Technology Perspective 2010

The role of Keidanren Action Plan in Japanese Government's Climate Change Policy

Quoted in the Government's Kyoto Protocol Target Achievement Plan
(Government Decision: 28 March 2008)

"These voluntary action plans by business operators have thus far produced results and the voluntary action plans of Nippon Keidanren are, in particular, playing a central role in countermeasures in the industrial community. The advantages of a voluntary instrument include the ease of selection of superior countermeasures for each actor based on its originality and ingenuity, the likelihood of providing incentives to pursue aggressive targets, and no procedural costs for both the Government and implementing actors. It is expected that these advantages will be further exploited in voluntary action plans by business operators."

2. Where are we heading?

~ Keidanren's Commitment to
a Low Carbon Society ~

2013 ~ 2050

15 Dec. 2009

Announced the "Basic Concept"

17 Jan. 2013

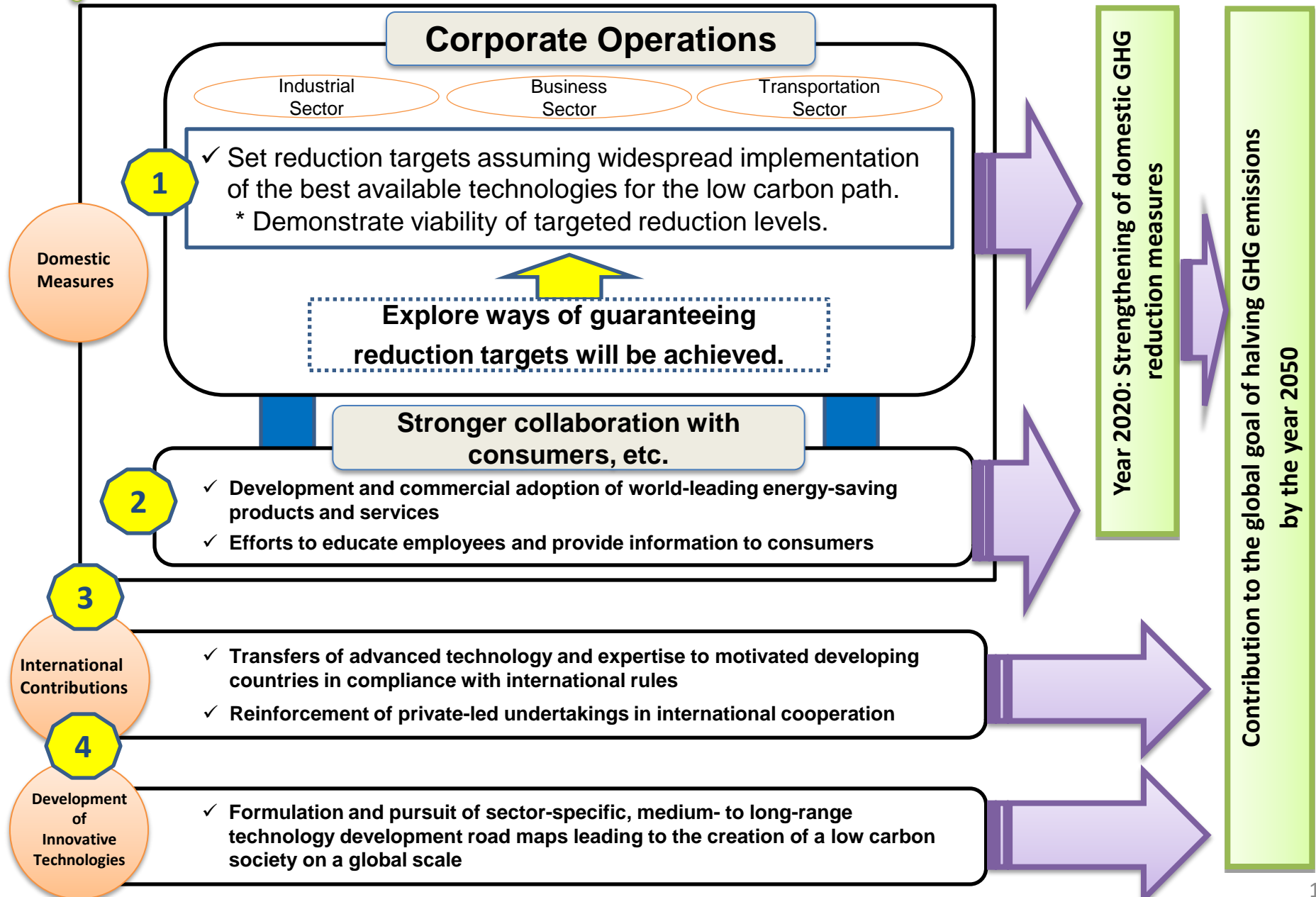
Released the "Commitment" integrating participating industries' action plans (as of January 2013)



1 Apr. 2013

Launch its PDCA cycle for the "Commitment" for 2013 onwards

Keidanren's Commitment to a Low Carbon Society



Participating Industries in "Keidanren's Commitment to a Low Carbon Society" (1)

* as of 1 November 2013

	Industries/Companies	
Industries and Companies which have formulated Action Plan (43)	<p>【Industrial Sector】</p> <ul style="list-style-type: none"> ① Japan Iron and Steel Federation ② Japan Chemical Industry Association ③ Japan Paper Association ④ 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 ⑤ Japan Cement Association ⑥ Japan Automobile Manufacturers Association (JAMA) and Japan Auto-Body Industries Association (JABIA) ⑦ Japan Auto Parts Industries Association ⑧ Japan Mining Industry Association ⑨ Japan Federation of Construction Contractors ⑩ Japan Federation of Housing Organizations (Judanren) ⑪ Lime Manufacturing Association ⑫ The Japan Rubber Manufacturers Association ⑬ The Federation of Pharmaceutical Manufactures' Associations of JAPAN 	<ul style="list-style-type: none"> ⑭ Japan Federation of Printing Industries ⑮ Flat Glass Association ⑯ The Japan Soft Drinks Association ⑰ Japan Dairy Industry Association ⑱ Japan Electric Wire and Cable Makers' Association ⑲ Japan Petroleum Development Association ⑳ Brewers Association of Japan ㉑ Japan Sanitary Equipment Industry Association ㉒ Flour Millers Association ㉓ Japan Association of Rolling stock Industries <p>【Energy-Conversion sector】</p> <ul style="list-style-type: none"> ㉔ The Federation of Electric Companies of Japan (FEPC) ㉕ Petroleum Association of Japan ㉖ Japan Gas Association

Participating Industries in "Keidanren's Commitment to a Low Carbon Society" (2)

* as of 1 November 2013

	Industries/Companies	
<p>Industries and Companies which formulated Action Plan (43)</p>	<p>【Commercial Sector】</p> <ul style="list-style-type: none"> ⑳ Japan Chain Stores Association (JCA) ㉑ Telecommunications Carriers Association ㉒ Japan Department Stores Association ㉓ Japan Association of Refrigerated Warehouses ㉔ Japanese Bankers Association ㉕ The Life Insurance Association of Japan (LIAJ) ㉖ Japan Foreign Trade Council ㉗ The General Insurance Association of Japan ㉘ Japan LP Gas Association ㉙ The Real Estate Companies Association of Japan ㉚ Japan Building Owners and Managers Association 	<p>【Transportation Sector】</p> <ul style="list-style-type: none"> ㉛ The Japanese Shipowners' Association (JSA) ㉜ The Scheduled Airlines Associations of Japan ㉝ Japan Federation of Coastal Shipping Associations ㉞ Non-governmental Railways Association ㉟ East Japan Railway Company ㊱ All Japan Freight Forwarders Association
<p>Industries and Companies which have expressed the will of formulating Action Plan (7)</p>	<p>【Industrial Sector】</p> <ul style="list-style-type: none"> ① Japan Aluminum Association ② Japan Bearing Industrial Association ③ Japan Brass Makers Association ④ The Shipbuilders' Association of Japan, The Cooperative Association of Japan Shipbuilders ⑤ Japan Machine Tool Builders' Association <p>【Commercial Sector】</p> <ul style="list-style-type: none"> ⑦ Japan Franchise Association <p>【Transportation Sector】</p> <ul style="list-style-type: none"> ⑧ Japan Trucking Association 	

The PDCA Cycle for Keidanren's Commitment to a Low Carbon Society

Plan (At target-setting [plan formulation] stage)

- Participating industries set targets in line with maximum levels they can meet by identifying BATs and related implementation plans, making international comparison of energy efficiency, etc.
- Participating industries are responsible for explaining the adequacy of their targets.

Evaluation Committee

- Participating industries brief the committee on their respective action plans.
- The committee comprehensively assesses and verifies industry action plans.
- Participating industries revise their action plans as necessary with attention to the findings of Evaluation Committee assessments and verification.
- When targets are exceeded: Lift target levels as necessary (without trading the surplus)

Act (At verification follow-up stage)

- ✓ Participating industries comply with full information disclosure, for example, by publishing the names of participating companies on their respective industry websites.
- ✓ The Keidanren website contains links to the websites of industrial organisations participating in the Commitment to a Low Carbon Society.
- ✓ The Commitment to a Low Carbon Society will undergo a sweeping review in fiscal 2016.

Do (At plan implementation stage)

- Each industry implements its action plan.
- Participating industries explore ways to assure certainty in meeting their targets, with consideration for the course of debate over the UN carbon credit framework including bilateral offset mechanisms.
- Action plans of individual industries are compiled by Keidanren and published on its website.

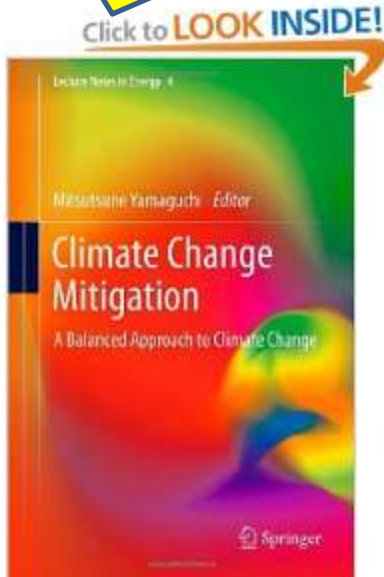
Evaluation Committee

- The committee assesses and verifies progress of each industry's action plan.

Check (At plan implementation verification stage)

For your better understanding

Must Read



M. Yamaguchi, University of Tokyo, Japan (Ed.)

Climate Change Mitigation A Balanced Approach to Climate Change

- ▶ Enables the reader to acquire a broader perspective in evaluating climate strategy
- ▶ Focuses on the climate change issue in a balanced way
- ▶ Includes contributions from experts in the fields of climate policy, energy, modelling, mitigation technologies, and adaptation

This book provides a fresh and innovative perspective on climate change policy. By emphasizing the multiple facets of climate policy, from mitigation to adaptation, from technological innovation and diffusion to governance issues, it contains a comprehensive overview of the economic and policy dimensions of the climate problem. The keyword of the book is balance. The book clarifies that climate change cannot be controlled by sacrificing economic growth and many other urgent global issues. At the same time, action to control climate change cannot be delayed, even though gradually implemented. Therefore, on the one hand climate policy becomes pervasive and affects all dimensions of international policy. On the other hand, climate policy cannot be too ambitious: a balanced approach between mitigation and adaptation, between economic growth and resource management, between short term development efforts and long term innovation investments, should be adopted. I recommend its reading.

- Carlo Carraro, President, Ca' Foscari University of Venice

3. Keidanren's Opinion

~ on International Framework &

Japan's Climate Change Policy ~

Keidanren's Position on a Framework for 2020 and Beyond

Excerpt from " Towards a Truly Effective International Framework " (15 October 2013)

(<http://www.keidanren.or.jp/en/policy/2013/088.html>)

Keidanren's Proposal Based on our Experiences

- (1) The Japanese business community has steadily achieved reductions in actual domestic emissions through a bottom-up action plan rather than top-down systems such as emission trading schemes .
- (2) Based on these experiences, Keidanren consider following to be important.
 - (a) **PDCA cycle**
 - (b) Set out a plan to comprised of below.
 - (i) **objective of domestic emission reductions**
 - (ii) **international contributions (to overseas reductions)**
 - (iii) **develop innovative technologies**

Suggestions for a Future Framework

- (1) A bottom-up approach will be effective in encouraging all countries to act with a view to reducing worldwide GHG emissions.
- (2) From the perspective of ensuring credibility and transparency, it will be possible to further encourage each country to make maximum effort by **making it accountable for achieving its own targets and actions and internationally reviewing progress** towards such goals.
- (3) The framework should **promote specific actions such as international contributions and innovative technology development** in addition to domestic reduction targets.

Opinion on Japanese Climate Change Policy

Excerpt from " Keidanren's Opinion on Japan's Climate Change Policy for the Immediate Future"
(4 October 2013) (<http://www.keidanren.or.jp/en/policy/2013/083.html>)

Fundamental Approach

- (1) To address climate change while achieving economic growth, Japan needs to;
 - (a) establish a growth strategy**
 - (b) formulate the energy policies and basic energy plan required to fulfill this strategy**
 - (c) determine the energy mix to be achieved by 2020**
 - (d) decide GHG emission targets for 2020**
- (2) Amid such difficulties in settling on an energy mix before the end of this year, **it is impossible to responsibly decide or announce national targets for 2020 before COP19.**
- (3) Nor is it appropriate to simply set a broad target range on the grounds that many uncertainties exist, since such a course could damage the government's credibility.

Upcoming Climate Change Negotiation

- (1) The Japanese government should declare its intention to submit 2020 targets for Japan once energy policy has been set and prospects for nuclear power generation have become clear.
- (2) At the same time, the Japanese government should formulate specific policies in a climate change measures plan focused on the three key pillars set out below.
 - (a) Enhanced Domestic Measures**
 - (b) Promotion of International Contributions**
 - (c) Innovative Technology Development**

Proposal for Assertive Diplomatic Strategies to Tackle Climate Change

Excerpt from " Proposal for Assertive Diplomatic Strategies to Tackle Climate Change"

(16 July 2013) (<http://www.keidanren.or.jp/en/policy/2013/065.html>)

Basic Concept

- (1) **Technology is the key to combating climate change while achieving economic growth.**
- (2) Widespread use of technologies, products, and expertise developed by Japanese industry can contribute to global climate change countermeasures.

Measures Aimed at Spread of Energy-Saving and Low-Carbon Technologies and Products

- (1) Encouraging emerging and developing countries to adopt low-carbon technologies.**
 - (a) Establishment of internal systems in recipient countries
 - (b) Awareness-raising activities in recipient countries
- (2) Promoting a bilateral/joint offset mechanism**
 - (a) Accelerate and promptly conclude negotiations with favourable countries
 - (b) Enhance feasibility studies to identifying promising projects, and steadily implement trials
 - (c) Establish and expand funding assistance schemes to encourage introduction of new technology
 - (d) Support human resource development and capacity building in target countries
 - (e) While ensuring transparency, reliability, and environmental integrity, the mechanism should be as flexible and user-friendly as possible.

Development of Innovative Technologies

- (1) The government should share a R&D road map with the business community and focus investment on priority areas.
- (2) The R&D tax incentive system needs to be enhanced.