

# Gist of the Kyoto Protocol Target Achievement Plan

In line with the Climate Change Policy Law, the Kyoto Protocol Target Achievement Plan was stipulated to set forth necessary measures required to ensure the accomplishment of the 6% reduction commitment under the Kyoto Protocol. The Plan was formulated as an outcome of the evaluation/review of the Climate Change Policy Programme conducted in FY 2004.

## 1 . What is aiming at Climate Change Policy

Ensure 6% reduction commitment under the Kyoto Protocol

Steady implementation of a continuous as well as long-term GHG emissions reduction on a global scale.

## 2 . Basic Idea

Simultaneous pursuit of environment and economy

Ensure the activation of Japan's economy and creation of employment be achieved by the efforts for accomplishing 6% reduction target under the Kyoto Protocol. In this respect, Japan will make efforts in preparation and development of a system which will contribute to the simultaneous pursuit of the environment and economy utilizing technological innovation and our ingenuity.

Promotion of technological innovation

Accelerate technological innovation including energy saving and utilization of unused energy as well as facilitating efficient apparatus and state of the art system. Establish an advanced state founded on the principles of environmental protection.

Promotion of participation and collaboration by all the stakeholders ( Public awareness raising campaign、 information gathering )

Proactively provide and share the information on progress of measures, specific actions that require more efforts. In addition to this, facilitate information dissemination activities to accelerate the participation and collaboration by all the stakeholders such as central and local governments, business entities and citizens.

Utilization of various policy measures

Effectively utilize various policy measures including voluntary, restrictive, and economic as well as information measures, taking advantage of their feature.

#### Prioritization of the evaluation and review process

Comprehensively assess the progress of policy measures and emissions levels in FY2007 and implement necessary policy measures starting from FY2008. Also, strengthen policy measures as appropriate after checking progress of policy measures taken by the government.

#### Ensuring international collaboration

Make utmost efforts in establishing common rules which will be participated by all the nations including the United States and developing countries. Also, Japan will take initiative in the actions taken by other countries through international cooperation.

### 3 . Target of emissions reduction and absorption of greenhouse gases (GHGs)

GHGs	Target		Projected reduction in FY 2010 under existing measures ( + 12% ) Total reduction with projected increase caused by economic growth and reduction by existing measures over actual achievement in FY2002 (+13.6%)
	Emissions in FY 2010 (million tons-CO <sub>2</sub> )	Compared to FY1990 (Total emission over the base year )	
Energy related CO <sub>2</sub>	1,056	+ 0.6%	- 4 . 8 %
CO <sub>2</sub> from non-energy sources	70	-0.3%	- 0 . 4 %
Methane	20	-0.4%	
N <sub>2</sub> O	34	-0.5%	
Three fluorinated gases	51	+ 0.1%	- 1 . 3 %
Sink including forests	-48	-3.9%	- 3 . 9 %
Kyoto Mechanism	-20	-1.6%*	- 1 . 6 %*
<b>Total</b>	<b>1,163</b>	<b>-6.0%</b>	<b>- 1 2 %</b>

\*Difference between reduction target during the first commitment period stipulated in the Kyoto Protocol and the actual value (emission level after the amount of GHG absorption is subtracted) during the same period is to be addressed by the Kyoto Mechanism. (Based on the projection of emission levels of each GHG with the effectiveness by existing measures, the difference is expected to be 1.6%)

( Indicated reduction target of energy related CO<sub>2</sub> in FY 2010 by sector )

	Emissions (million tons-CO <sub>2</sub> )	Projected reduction in FY 2010 under existing measures (million tons-CO <sub>2</sub> )
Energy related CO <sub>2</sub>	1,056	-59
Industrial sector	435	-15
Private sector	302	-31
Business sector	165	-13
Household	137	-18
Transportation sector	250	-9
Energy conversion sector	69	-4

\*Projected level by existing measures achieving tangible results, accomplishing projected economic growth.

#### . 4 . Policy measures to accomplish the target

##### ( 1 ) Policies and measures on GHGs emissions reduction and sinks

###### Energy related CO<sub>2</sub>

In order to reduce energy related CO<sub>2</sub>, which consists 90% of total GHG emissions, Japan will continuously promote measures on energy related apparatus as well as on individual facility/stakeholder. We will also take measures to shift socio-economy including urban/regional structure and public transportation infrastructure into low carbon one to shift Japan's energy demand and supply into low carbon type.

## Overview of Measures Concerning Energy-Originated Carbon Dioxide Sources

Measures in terms of integration and networks	CO <sub>2</sub> -saving regional and urban structures and patterns of socioeconomic systems	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center; margin: 0;"><b>CO<sub>2</sub>-saving urban design</b></p> <ul style="list-style-type: none"> <li>○Promote Area energy network (district heating and cooling, etc.)</li> <li>○Efforts that transcend the individual boundaries of each entity (collective energy management of entire facilities and multiple buildings using IT)</li> <li>○Reduce CO<sub>2</sub> emissions by improving the heat environment through countermeasures against the heat island effect such as greening</li> </ul> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center; margin: 0;"><b>Design CO<sub>2</sub>-saving transportation systems</b></p> <ul style="list-style-type: none"> <li>○Promote use of public means of transportation (develop and improve the convenience of public means of transportation, commuter traffic management, etc.)</li> <li>○Promote environmentally friendly use of automobiles (anti-idling, spread the concept of eco-drive, etc.)</li> <li>○Build a system that facilitates road traffic (adjust the demand of automobile traffic, promote Intelligent Transport Systems (ITS), etc.)</li> <li>○Realize Environmentally Sustainable Transport (ETS) (efforts in pioneering regions)</li> </ul> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center; margin: 0;"><b>Build CO<sub>2</sub>-saving distribution systems</b></p> <ul style="list-style-type: none"> <li>○Promote CO<sub>2</sub>-saving measures with the cooperation of shippers and distributors (revising the Law Concerning the Rational Use of Energy (Energy Conservation Law), Green Distribution Partnership Meeting, etc.)</li> <li>○Promote improvement of distribution efficiency (modal shift, improve efficiency of trucking, etc.)</li> </ul> </div> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;"><b>Promote integrated introduction of new energy sources and energy flexibility</b></p> <ul style="list-style-type: none"> <li>○Build network of dispersed new energy sources</li> <li>○Promote the use of biomass</li> <li>○Effective use of unused energy sources, etc. (energy generated from temperature difference, heat from snow and ice, heat from waste incineration, etc.)</li> <li>○Energy flexibility among multiple sources (companies sharing exhaust heat from factories in industrial complexes)</li> </ul> </div>
Measures by facility and entity		<div style="display: flex; justify-content: space-between;"> <div style="width: 22%; border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;"><b>Efforts by manufacturers, etc.</b></p> <ul style="list-style-type: none"> <li>○Steadily implement voluntary action plans</li> <li>○Thoroughly manage energy in factories, etc.</li> <li>○Efforts by the civilian and transport sectors in industry</li> </ul> </div> <div style="width: 22%; border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;"><b>Efforts by transport businesses</b></p> <ul style="list-style-type: none"> <li>○Promote environmentally friendly use of automobiles (same as previous time)</li> <li>○Promote CO<sub>2</sub>-saving measures with the cooperation of shippers and distributors (same as previous time)</li> <li>○Promote improvement of distribution efficiency (same as previous time)</li> </ul> </div> <div style="width: 22%; border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;"><b>CO<sub>2</sub>-saving in business facilities such as offices and stores</b></p> <ul style="list-style-type: none"> <li>○Steadily implement voluntary action plans</li> <li>○Thoroughly manage energy according to the Energy Conservation Law</li> <li>○Improve energy conservation capability of buildings</li> <li>○Spread Building Energy Management Systems (BEMS)</li> </ul> </div> <div style="width: 22%; border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;"><b>CO<sub>2</sub>-saving in households</b></p> <ul style="list-style-type: none"> <li>○Improve energy conservation capability of houses</li> <li>○Spread Home Energy Management Systems (HEMS)</li> </ul> </div> </div>
Individual measures	Measures by equipment	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center; margin: 0;"><b>CO<sub>2</sub>-saving in the energy supply sector</b></p> <ul style="list-style-type: none"> <li>○Steadily promote nuclear power generation</li> <li>○Promote introduction of new energy sources</li> <li>○Promote shift to natural gas</li> <li>○Reduce CO<sub>2</sub> emission factor in the electric field</li> <li>○Promote effective use of oil and LP gas</li> <li>○Realize a hydrogen-based society</li> </ul> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%; border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;"><b>Measures by equipment in the industrial sector</b></p> <ul style="list-style-type: none"> <li>○Promote introduction of equipment and facilities with high energy conservation capability                             <ul style="list-style-type: none"> <li>• High-performance industrial furnaces</li> <li>• Next-generation coke ovens, etc.</li> </ul> </li> </ul> </div> <div style="width: 30%; border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;"><b>Measures by equipment in the transport sector</b></p> <ul style="list-style-type: none"> <li>○Expand and spread automobiles that meet top-runner standards</li> <li>○Spread fuel-efficient automobiles</li> <li>○Spread clean energy automobiles</li> <li>○Reduce running speed of large trucks</li> <li>○Introduce anti-idling equipment</li> <li>○Introduce sulfur-free fuel</li> <li>○Improve energy efficiency in railroad, shipping and aviation industries, etc.</li> </ul> </div> <div style="width: 30%; border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;"><b>Measures by equipment in the business and household sectors</b></p> <ul style="list-style-type: none"> <li>○Improve efficiency of equipment that meets top-runner standards</li> <li>○Provide information on energy-conserving equipment, etc.</li> <li>○Help spread and develop technology for energy-conserving equipment such as efficient water heaters</li> <li>○Reduce standby power consumption</li> </ul> </div> </div>

\*Policy measures and the index for assessment of individual measure should be clarified to accomplish steady implementation by evaluation and review.

#### CO<sub>2</sub> from non-energy sources

- Promote the use of blended cement and promotion of reduction measures on CO<sub>2</sub> generated by waste incineration.

#### Methane

- Reduction of final disposal volume.

#### N<sub>2</sub>O

- Upgrade combustion in sewage sludge incineration facilities, improvement of incineration process in municipal solid waste disposal facility.

#### Three Fluorinated Gases (HFC、 PFC、 SF<sub>6</sub> )

- Promote systematic actions by industries and development and use of alternatives.
- Collect HFC filled in apparatus as refrigerant complying with regulation.

### ( 2 ) GHG Sinks

#### Securing absorption

Japan will comprehensively and steadily promote measures to achieve the goals of the Basic Plan for Forest and Forestry.

#### Promote urban greening

### ( 3 ) Kyoto Mechanism

Public and private sectors will further cooperate to promote the effective utilization of Kyoto Mechanism, by which environment-related technologies are transferred to developing countries in exchange for emission credits. Measures to facilitate credit acquisition will be discussed with a view to implementing them from FY2006.

#### ( 4 ) Cross-sectoral measures

##### Public awareness raising campaign

Japan will disseminate information, improve environmental education to encourage every citizen to take action, in collaboration with economic circle, NPOs, labour organisations and academic circle, etc.

##### Initiatives by public institutions

Japan will create a new action plan. Its progress will be annually reviewed by the Global Warming Prevention Headquarters and the results will be made public.

##### GHG Accounting, Reporting and Announcement

Individual action is expected through informing the general public of the actual status of GHG emissions. Amendments to the Law for the Promotion of Global Warming Prevention Measures will be proposed for that purpose.

##### Introduction of summer time

Encourage national discussion on the possible introduction of summer time which include discussion on lifestyle and work style. Engender environmental awareness and form a consensus on the issue through this discussion.

##### Policy mix

Reduce GHG emission effectively and efficiently. While doing so, utilize the concept of policy mix which mobilizes all measures including voluntary, regulatory, economic and informational ones. (Environmental tax is an issue which requires sincere and comprehensive examination. Domestic emissions trading mechanism is also an issue for examination.)

#### ( 5 ) Basic measures

Prepare domestic systems to account GHG emissions and absorption. Promote technological development and R&D comprehensively. Strengthen monitoring and observation systems.

Promote international collaboration and cooperation in combating global warming.

## 5 . Organisational arrangements

The Global Warming Prevention Headquarters will conduct annual review and quantitative assessment of the Plan in FY 2007.

The Headquarters will take the lead in steadily implementing the Plan. Working groups will be established under the Headquarter for the public awareness campaign and other agendas, in collaboration with relevant ministries and agencies.

'Conference on the Promotion of Energy-related Regional Global Warming Measures' will be established in each regional block, and relevant ministries and agencies will back up regional undertakings, in collaboration with local governments.