Japan's Policy for LCS

Tatsuo SEINO

Office for Environment Research Global Environmental Bureau Ministry of the Environment, Japan

the Action Plan for the Creation of a Low-Carbon Society (July 29, 2008 Decision at the Cabinet Meeting)

2. Global Environment Research Fund

3. "Hatoyama Initiative"

the Action Plan for the Creation of a Low-Carbon Society (July 29, 2008 Decision at the Cabinet Meeting)

2. Global Environment Research Fund

3. "Hatoyama Initiative"

1.Action Plan for the Creation of a Low-Carbon Society (July 29, 2008 Decision at the Cabinet Meeting)

I. Japan's Target

II. Dissemination of Innovative technologies and exiting advanced technologies

III. Framework to move the whole country toward reduced carbon

IV. Support for regional and citizens' initiatives

1. Action Plan for Achieving a Low-Carbon Society (Cabinet decision, July 29, 2008)

I. Japan's Targets

Reduce 60–80% of the current level of emissions by 2050
 Peak out world's total emissions in the next 10–20 years
 Announce quantified national target (mid-term target) <u>at an appropriate time next year</u>

- → Japan's mid term goal was announced as 15% reduction (without use of sinks or credits) by 2020 (June 2009)
- 1.Building agreement on a fair, equitable and effective post-2012 framework
- 2.Setting quantified national targets
- 3.Support for other countries' efforts
 - (1)Dissemination of technologies through the sectoral approach and support
 - (2)The Cool Earth Partnership
 - (3)Establishment of a multilateral fund

Action Plan for the Creation of a Low-Carbon Society (July 29, 2008 Decision at the Cabinet Meeting)

I. Japan's Target

II. Dissemination of Innovative technologies and exiting advanced technologies

III. Framework to move the whole country toward reduced carbon

IV. Support for regional and citizens' initiatives

1 (1). Action Plan for Achieving a Low-Carbon Society (Cabinet decision, July 29, 2008)

II. Dissemination of Innovative technologies and exiting advanced technologies

1. Development of innovative technologies

- (1) Steady enforcement of the roadmap to innovative technology development; "Technological Roadmap"
- US\$30 billion will be devoted for next 5 years
- first-breeder reactor cycle tech.; tech for biomass; low-fuel consumption aircraft; high-efficiency ships; improved traffic and goods distribution through ITS;
- international contributions to earth observation, climate change projection and impact assessment.
- (2) Upgrading coal use
- CCS thermal power generation (30% of GHGs)/ steelmaking process (10% of GHGs) JY2,000 /ton by 2015, JY1,000/ton by 2020

1. Action Plan for Achieving a Low-Carbon Society (Cabinet decision, July 29, 2008)

II. Dissemination of Innovative technologies and exiting advanced technologies(1)

- 2. Dissemination of exiting advanced technologies
 - (1) Huge increase in the installation of solar power generation facilities
 - Aim at becoming once again the world leader in <u>solar power</u> <u>generation</u>
 - ▶ installations be 10 (\rightarrow 20) times in 2020, 40 times in 2030
 - price of photovoltaic generation system be reduced 50% in 3–5 years.
 ~ Goal for PV raised to 20 times by 2020 as part of the Economic Crisis
 Action
 - (2) Raising the proportion of <u>zero-emission energy</u> sources to over 50 percent
 - Wind power generation; hydroelectric generation; biomass; snow and ice
 - (3) Introduction of **<u>next-generation vehicle</u>**
 - > proportion to 1/2 of new car sales by 2020.

1 (1). Action Plan for Achieving a Low-Carbon Society (Cabinet decision, July 29, 2008)

- II. Dissemination of Innovative technologies and exiting advanced technologies(2)
- 2. Dissemination of exiting advanced technologies (continued)
 - (4) Changing from incandescent light bulbs to low-energy lamps
 - (5) Accelerating the introduction of energy-efficient TVs, water heaters airconditioning and refrigerators
 - (6) Promoting energy –efficient housing and office buildings -200-year Housing
 - (7) Promotion of Nuclear power
 - (8) Providing outstanding nuclear power safety tech., and expertise to the world
 - (9) Implementing Japan's own initiatives

Action Plan for the Creation of a Low-Carbon Society (July 29, 2008 Decision at the Cabinet Meeting)

I. Japan's Target

II. Dissemination of Innovative technologies and exiting advanced technologies

III. Framework to move the whole country toward reduced carbon

IV. Support for regional and citizens' initiatives

1. Action Plan for Achieving a Low-Carbon Society (contd.)

III. Framework to move towards a Low Carbon Society

- 1. Emission trading
 - Start trial phase of domestic emissions trading (Oct 2008)
- 2. Tax system
 - Making the tax system greener
- 3. Visualization
 - Visualize GHG emissions associated with many products, foods, and services. Ex: Carbon footprint, Carbon offsetting
- 4. Formulating Standards and frameworks to facilitate flow If capital into environmental business

Action Plan for the Creation of a Low-Carbon Society (July 29, 2008 Decision at the Cabinet Meeting)

I. Japan's Target

II. Dissemination of Innovative technologies and exiting advanced technologies

III. Framework to move the whole country toward reduced carbon

IV. Support for regional and citizens' initiatives

1. Action Plan for Achieving a Low-Carbon Society (contd.)

IV. Support for regional and citizens' initiative

- 1. Reducing carbon by using the functions of agriculture, forestry and fisheries
 - Ex: promoting biofuels, etc
- 2. Creating low-carbon cities and regions
- 3. Frameworks of learning about low-carbon and sustainable societies
- 4. Urging changes to business styles and lifestyles
 - Further promote *national campaigns* such as "Team Minus 6%".

the Action Plan for the Creation of a Low-Carbon Society (July 29, 2008 Decision at the Cabinet Meeting)

2. Global Environment Research Fund

3. "Hatoyama Initiative"

1 (1). Action Plan for Achieving a Low-Carbon Society (Cabinet decision, July 29, 2008)

II. Dissemination of Innovative technologies and exiting advanced technologies

1. Development of innovative technologies

- (1) Steady enforcement of the roadmap to innovative technology development
- US\$3 trillion will be devoted for next 5 years
- first-breeder reactor cycle tech.; tech for biomass; low-fuel consumption aircraft; high-efficiency ships; improved traffic and goods distribution through ITS;
- international contributions to earth observation, climate change projection and impact assessment.
- (2) Upgrading coal use
- CCS thermal power generation (30% of GHGs)/ steelmaking process (10% of GHGs) JY2,000 /ton by 2015, JY1,000/ton by 2020

2.Global Environment Research Fund

Outline

Budget in FY2009 is about \$40 million.

- The GERF is a competitive grant scheme for global environmental research with calls for proposals.
- The GERF has played a role as a core fund in Japan for promoting global environmental studies.
- In order to obtain scientific evidence necessary for drafting and implementing policies to protect the global environment, the administration indicates desirable themes for research.

Research Field

- Global system changes
- Transboundary pollution in the atmosphere, oceans and inland environments such as international rivers
- Conservation and recovery of large-regional ecosystems
- Sustainable societies and policies for their implementation

SPECIAL RECUITMENT DIVISIONS Since FY 2008

- •The "Low-Carbon Society" division
- •The "Wise Adaptation to Climate Change" division

2.Global Environment Research Fund

Areas of Projects		Budget in FY2009 is about \$40 million			
Research areas	Condition		Research Period/ No. of the projects	Average of Annual Budget per Project	
Strategic R&D Area	Top Down (Large scale project)		5 years / 4 projects	About \$2.8 million	
Global Environmental Research area	Botto	m up	3 years/ 61 projects	About \$0.4 million	
Revolutionary Research in Feasibility Studies area	Resea requi years age	archers red to be 40 or younger in	1 or 2 years/ 14 projects	About \$0.1 million	

2.Global Environment Research Fund

Areas of Projects		S-3 " Japan Low Carbon Society 2050 "		
Research areas	(pro	Ject (FY2004-FY2 No. of the projects	Annual Budget
Strategic R&D Area	Top Down (Large scale project)		5 years / 4 projects	About \$2.8 million
Global Environmental Research area	ΒΟΤΤΟ	m up	3 years/ 61 projects	About \$0.4 million
Revolutionary Research in Feasibility Studies area	Resea requi years age	archers red to be 40 or younger in	1 or 2 years/ 14 projects	About \$0.1 million

the Action Plan for the Creation of a Low-Carbon Society (July 29, 2008 Decision at the Cabinet Meeting)

2. Global Environment Research Fund

3. "Hatoyama Initiative"

- 1. Introduction
- 2. Reduction targets
- 3. Support for developing countries
- 4. Conclusion

2. Reduction targets

"Based on the discussion in the Intergovernmental Panel on Climate Change (IPCC), I believe that the developed countries need to take the lead in emissions reduction efforts. It is my view that Japan should positively commit itself to setting a long-term reduction target. For <u>its midterm goal</u>, Japan will aim to reduce its emissions by 25% by 2020, if compared to the 1990 level, consistent with what the science calls for in order to halt global warming."

"However, Japan 's efforts alone cannot halt climate change, even if it sets an ambitious reduction target. It is <u>imperative to establish a fair and effective international</u> <u>framework in which all major economies participate.</u> <u>The commitment of Japan to the world is premised on</u> <u>agreement on ambitious targets by all the major</u> economies.



3. Support for developing countries

"Japan deems the following four principles essential in assisting developing countries:

First, the developed countries, including Japan, must contribute through substantial, <u>new and</u> additional public and private financing.

Second, we must develop rules that will facilitate international recognition of developing countries' emissions reductions, in particular those achieved through financial assistance, in a measurable, reportable and verifiable manner."



3. Support for developing countries

"Third, on assistance to developing countries, consideration shoto <u>innovative mechanisms to be</u> <u>implemented in a predictable manner</u>. And an international system should be established under the auspices of the UN climate change regime. This system should facilitate one-stop provision of information on and matching of available bilateral and multilateral financing, while securing transparency and effective utilization of assistance.uld be given

Fourth, Japan proposes to establish a framework to promote the transfer of low-carbon technologies which ensures the protection of intellectual property rights."