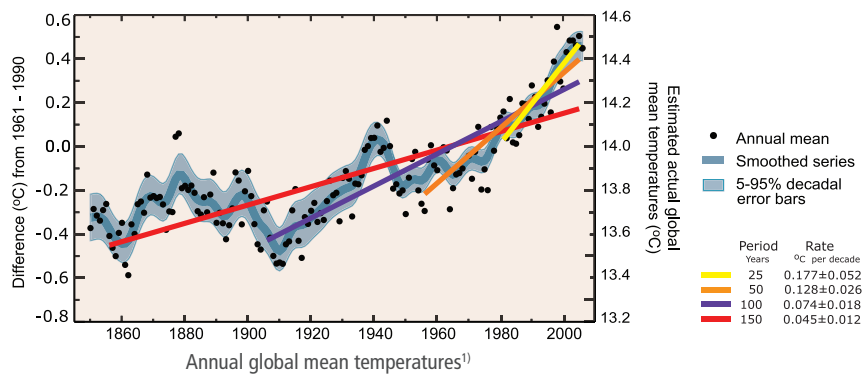


DEVELOPMENT COOPERATION IN THE FIELD OF CLIMATE CHANGE

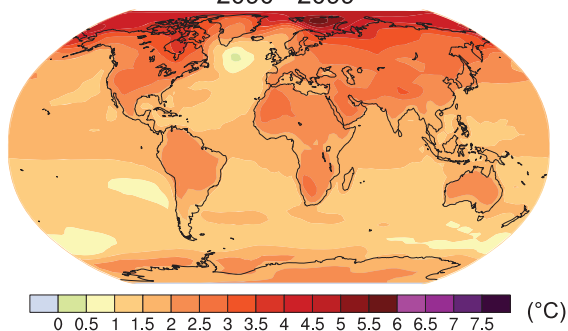


Ministry of Foreign Affairs JAPAN

Adverse impacts of climate change are already being felt, and this presents unavoidable risks to the entire world in the coming decades.



2090 - 2099



Projected surface temperature changes for the late 21st century relative to the period 1980–1999 (B1 scenario).¹⁾

©IPCC 2007 : WG1-AR4

* B1: "B1" is one of the emission scenarios of the IPCC Special Report on Emission Scenarios (SRES). The emphasis is on global solutions to economic, social and environmental sustainability, including improved equity, but without additional climate initiatives.

In 2007, the Intergovernmental Panel on Climate Change (IPCC) concluded that the climate system is warming and that most of the observed increase in global average temperatures is very likely due to the observed increase in anthropogenic greenhouse gas (GHG) concentrations¹⁾. In addition, IPCC showed that the Earth's natural environment is being affected by global warming²⁾.

Adverse impacts of climate change are evident around the world, and damage is already occurring in various forms. Climate change presents unavoidable risks to developed and developing countries alike over the next several decades.

- 1) Climate Change 2007 – The Physical Science Basis Contribution of Working Group I to the Fourth Assessment Report of the IPCC (figures are cited from the Technical Summary)
- 2) Climate Change 2007 – Impacts, Adaptation and Vulnerability Contribution of Working Group II to the Fourth Assessment Report of the IPCC

Addressing the Challenges

It is important that financial resources, technologies and expertise of developed countries be utilized for taking adaptation and mitigation measures.



Technical training at a thermal power plant (Mongolia)
(photo: JICA)



Solar panel constructed in a project site of rural development study (Mali)
(photo: JICA)

It is crucial that financial resources, technologies and expertise of developed countries be utilized in promoting effective initiatives in developing countries.

Climate change immensely affects particularly vulnerable regions, such as small-island states, coastal areas and arid regions, as well as countries with large populations of the poor. For these reasons, adaptation measures should be taken in developing countries at the earliest possible time.

Meanwhile, some developing countries that are going through a high level of economic development have become major GHG emitters, and they are in a position to have a real impact on the progress of global warming in the future. It is important that mitigation measures be actively promoted in these countries.

Climate change could constitute a major hindrance to the achievement of sustainable development in developing countries.

Response to climate change is often delayed, especially in developing countries, due to a lack of financing, technologies and expertise. Some countries take a negative attitude towards dealing with climate change because of their concerns that such actions may drag down economic growth.

Meanwhile, if no action is taken, the impacts of climate change are likely to hamper sustainable development in developing countries.



Sahel region

Dried out marsh due to lack of rainfall.
(photo: Action for Greening Sahel (AGS-Japan))

Source: Japan Center for Climate Change Actions
(<http://www.jccca.org/index.php>)



Tuvalu

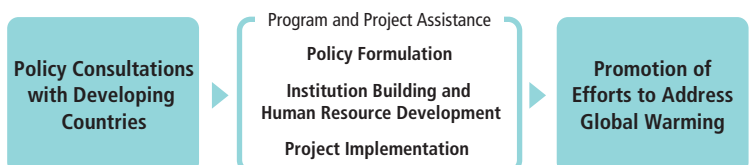
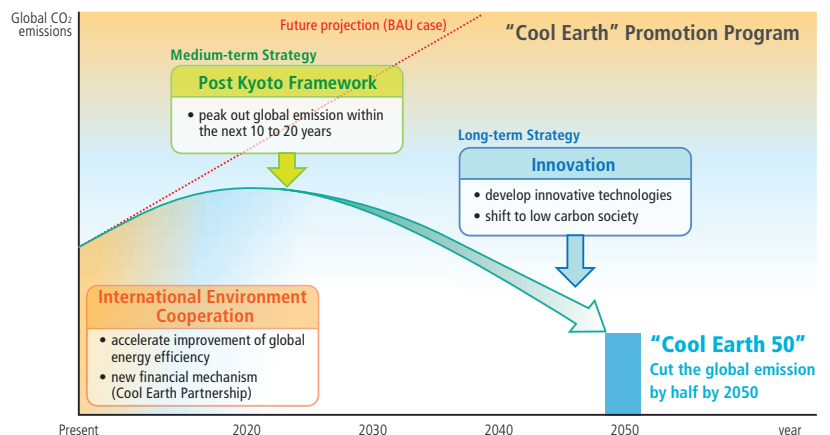
Coastal erosion in the Funafuti Atoll (capital)
(photo: Shuuichi Endou (photographer/president of NPO Tuvalu Overview))

of Climate Change

Japan's initiative – Cool Earth Partnership

In May 2007, Japan's then-Prime Minister Shinzo Abe announced "Cool Earth 50," a proposal that included new financial mechanisms to extend wide-ranging support to developing countries with high aspirations to make efforts to limit greenhouse gas emissions and achieve economic growth in a compatible manner.

Furthermore, in January 2008, at the World Economic Forum's Annual Meeting in Davos, Japanese Prime Minister Yasuo Fukuda proposed the "Cool Earth Promotion Program" which will consist of three pillars: (1) a post-Kyoto framework, (2) international environmental cooperation, and (3) innovation. As part of the "international environmental cooperation," he presented that Japan would take actions to transfer high quality environmental technology to a greater number of countries, and establish a new financial mechanism, Cool Earth Partnership, on the scale of US\$10 billion.



Establishment of Cool Earth Partnership (Financial Mechanism) :

- 1) Japan will have policy consultations with developing countries to reach a common understanding on policies regarding climate change (e.g. Reduce greenhouse gas emissions and achieve economic growth in a compatible way to contribute to climate stability).
- 2) Japan will provide program and project assistance (policy formulation, institution building, human resource development, project implementation) in order to promote efforts to address climate change in developing countries.

Japan's basic policy regarding its assistance based on "Cool Earth Partnership"

Goal

To realize the vision of "global sustainable society" in the long run

In realizing the vision of "global sustainable society" in the long run, the government of Japan considers it necessary for each and every country in the world assuming its role under the principle of "common but differentiated responsibilities and respective capabilities" including developing countries to share the understanding that they should collaborate with one another to formulate a flexible, diverse and effective post-2012 framework on climate change in which they will take actions and work together towards significant reduction of greenhouse gases.

Japan will provide assistance in the areas of mitigation, adaptation and access to clean energy, based on the following "Philosophies" and the "Basic Policy Directions", to developing countries that actively engages themselves in a post-2012 framework and make efforts to reduce greenhouse gas emissions and achieve economic growth in a compatible way, in order to enable them to address the issue of climate change in an effective manner.

Underlying Philosophies

Taking on climate change universally

- Climate change is an urgent issue for all humanity affecting "human security." Accordingly, all actors (national governments, private sector and individuals) must make conscious efforts to address this issue.

Achieving sustainable development (Making climate change management and economic development compatible)

- It is important to ensure that implementation of measures to tackle climate change will have a positive effect on economy as well, and to encourage this by pursuing a path toward development that will bring co-benefits.
- It is essential to promote the dissemination of a wide range of environment and energy technologies and expertise including those related to energy conservation.
- It is important to take a comprehensive approach in carrying out measures against climate change, harmonizing them with efforts made to address other environmental issues such as forest reduction or deterioration and loss of biodiversity. Such comprehensive approach should also take into account challenges in other sectors including water, agriculture, health and disaster reduction, as well as the degree of vulnerability to climate change and the need for a good balance between mitigation and adaptation measures.

Self-reliance and mutual cooperation

- Each actor in developing countries involved in the efforts to address climate change, from the community level up to the national level, should play its role with a clear sense of responsibility in their respective positions, acting under the principles of self help effort. The international community should support such actions.

In September 2007, the Ministry of Foreign Affairs established the Experts' Panel on Development Cooperation in the Field of Climate Change, comprised of eight academic experts. The Panel discussed the goal and principles to be shared by all, and actions to be taken by each of those actors in promoting development cooperation in the field of climate change. The outcome of discussions held by the Panel on four separate occasions was compiled as *Basic Policy on Development Cooperation in the Field of Climate Change: Recommendations by Expert's Panel for Realization of "Cool Earth"* in March 2008. Based on this, the government of Japan has set out *Japan's basic policy regarding its assistance based on "Cool Earth Partnership"*.

Basic Policy Direction

Promotion of comprehensive environment conservation

- We should create a "low carbon society," in which drastic reduction of greenhouse gas emissions is achieved through the prevention of environmental pollution as well as the development of adequate systems and infrastructure for energy conservation. At the same time, creation of a "sound material-cycle society" in which resources are not wasted, as well as a "society in harmony with nature" in which ecosystems are protected as the basis of human existence, should also be pursued to ensure comprehensive and balanced environment conservation.

Introduction of a mid- to long-term perspective

- The international community should set the target of cutting global greenhouse gas emissions by half by 2050, and promote effective mitigation measures in order to achieve this target.
- We should mainstream adaptation in development in order to build up mid- to long-term resilience of society to climate change, by taking short-term measures to respond to climate disasters as well as incorporating measures to address climate change into development plans of developing countries, particularly in Least Developed Countries and small island countries.

Stepping up partnership based on a participatory approach

- We should promote action by and partnership among various actors (communities, regions, national governments, international organizations, business sector, NGOs, experts etc.).

Flexible and Diverse Response

- We should promote measures suited to the natural, social, and economic context of each country and region, paying due respect to their respective traditions and cultures.

Cooperation Based on Policy Dialogue

In order to help developing countries implement priority measures to address climate change, Japan will conduct policy dialogue at the outset to share the goal and principles, then provide assistance for formulation of climate change management programs, capacity development and implementation of related projects.

Priority Actions to be Taken in Developing Countries

Overall Measures

Mitigation

It is important to take measures targeting carbon dioxide (CO₂) emissions related to energy supply and demand, which account for more than 60 percent of greenhouse gases (GHG) emissions in developing countries. A co-benefit approach should be promoted that achieves GHG emissions reductions while at the same time bringing benefits that contribute to sustainable development in those countries. Furthermore, forest-related measures in developing countries can facilitate even greater results if measures are taken, taking into account the function of forests as carbon sinks.

(photo: JICA)

Adaptation

The impacts of global warming and adaptation measures to address them differ considerably by country and region, depending on the characteristics of natural phenomena such as drought or flooding, and on different degrees of vulnerability of social systems. In particular, developing countries tend to be ill prepared even to respond to current weather conditions, and therefore run a high risk of being adversely affected by future climate change because of their vulnerability.

(photo: JICA)

- 1 It is important to incorporate environmental and social considerations, including measures to address climate change, into any planning related to development, be it on energy, natural resources, land development, transportation, or population.

1 Measures related to energy supply and demand

- ▷ **Demand side**
When planning urban and rural development, or creating systems for transport or waste management, it is essential to adequately consider ways to steer a society towards a low carbon path with sound material cycles.
- ▷ **Supply side**
It is necessary to take measures, such as promotion of renewable energy, improvement of efficiency in energy supply, and utilization of low-carbon energy sources, to curb GHG emissions from their energy supply systems, as an integral part of efforts to secure stable supplies to meet energy demand.
- ▷ **Access to modern and cleaner energy**
In rural areas, it would be preferable to take advantage of renewable energy, such as solar, wind, and hydropower, as well as clean modern energy sources that utilize livestock manure and other waste, rather than depending only on fossil fuels.

1 Enhancement of adaptive capacity of local communities

It is essential to enhance the adaptive capacity of communities and individuals based on the human security approach, taking into account regional and community characteristics, including their vulnerabilities, in particular.

2 Highlighting of adaptation measures in the formulation of development plans

- It is necessary to promote the following actions:
- ▷ Mainstreaming adaptation measures into development plans from a long-term and cross-sectoral perspective
 - ▷ Identification of sectors and issues in need of urgent attention based on regional differences in the impacts of climate change and measures for adaptation
 - ▷ Enhancement of existing measures and implementation of measures to address emerging impacts

3 Sector-specific measures and coordination between sectors

Adaptation measures in each of the sectors, such as water resources, food supplies and agriculture, human health, disaster reduction, socio-economic infrastructure, and ecosystems, as well as coordination between related sectors, are needed.

It is necessary for climate change mitigation and adaptation measures in developing countries to be promoted in a manner that will also contribute to various other issues relating to sustainable development.

Recommendations by Expert's Panel for Realization of "Cool Earth" presented priority actions to be taken by each actor in order to realize "Cool Earth."

2 In order to ensure that specific mitigation and adaptation measures are implemented effectively, **cross-sectoral efforts (including development of legal instruments, formulation of plans, awareness-raising and education) need to be made at each of the national, regional, and community levels.**

3 It is important that **the formulation of national policies and plans relating to the environment and climate change is conducted in a transparent manner, and that its outcomes be shared with the international community.**

2 Measures related to carbon sinks

Forest and land can be CO₂ emission sources if management is inappropriate. It is essential to create a framework in which natural resources can be used sustainably, and the balance between the improvement in rural livelihood and development on the one hand, and the environment on the other, can be maintained.

3 Curbing of GHG emissions from non-energy sources (ozone-depleting substances, methane)

It is necessary to curb GHG emissions from non-energy sources including methane from agriculture and waste, and leakage of CFCs from industrial processes, which account for almost 40 percent of GHG emissions in developing countries.

4 Promotion of a co-benefit approach which satisfies development needs and addresses climate change measures at the same time

It is necessary to take measures based on a co-benefit approach that can deliver environmental improvements at the local level, such as air pollution, water pollution, and waste problems arising from rapid economic growth, as well as GHG emissions reductions in a wider sense at the same time.

4 Needs assessment and flexible responses based on scientific knowledge

It is necessary to promote the following actions:

- ▷ Improvement of technical capacity for observing and projecting climate change, and for impact assessments, at national and regional levels
- ▷ Collection, management, disclosure and sharing of information relating to climate change impacts and adaptation
- ▷ Formulation of plans on adaptation based on scientific knowledge, and enhancing institutional flexibility to implement them

5 Training of experts on adaptation

Experts need to be trained with knowledge and experience in the wide variety of areas required for adaptation measures, and experts in each related area should incorporate the perspective of adaptation into their area of expertise.

6 Establishment of cooperative systems to function in the event of any climate-related disaster

If damages from climate change becomes chronic or becomes frequent, cooperative systems should be established in order to promptly assess the impacts and implement appropriate adaptation measures. It is also important to consider creation and introduction of new frameworks, such as climate change insurance to compensate for unavoidable damage.

Examples of **Mitigation**

Zafarana Wind Power Plant Project — Egypt, 2003



(photo: JBIC)

Sustainable Watershed Management Project in the Upper Area of the Sabana Yegua Dam — Dominican Republic, April 2006–March 2009



Counterpart organization's nursery (photo: JICA)

Examples of **Adaptation**

Project for Construction of Multipurpose Cyclone Shelters (Phase V) — Bangladesh, March 2003- November 2005 (Completion)



Example of shelter/ primary school completed in February 2001 by Japan's free Grant Aid (photo: JICA)

The Study on Comprehensive Agricultural Development of Prek Thnot River Basin — Cambodia, July 2005—August 2008



Comparison of rice growth status between traditional farming methods (left) and new farming methods implemented through the pilot project (System of Rice Intensification: SRI) (Right) (photo: JICA)

Implementation of Assistance

Actions to be Taken by Donor Countries and Organizations

1 Overall Measures

- Assessment of the situation and challenges in developing countries
- Assistance for capacity development
- Technical assistance
- "Tailor-made" assistance: Identification of priorities and selection of target projects in a timely and appropriate manner in order to offer tailor-made assistance that responds to the actual situation at the national, regional, or community levels.



Demonstration of improved cooking stove (photo: JICA)

2 Mitigation Measures

- Development and transfer of innovative technologies
- Support through co-benefit approach
- Utilization of the Clean Development Mechanism (CDM) and support for mitigation measures that are not covered by the CDM

3 Adaptation Measures

- Mainstreaming adaptation into all development assistance programs and projects
- Enhancing assistance in sectors related to adaptation
- Detailed and accurate assessment of vulnerabilities and risks and the assistance corresponding to it

Actions to be Taken Especially by International Organizations

1 Global observations and data provision on climate change and its impacts

Sharing of the observation data obtained from existing initiatives as widely as possible.

2 Establishment of information-sharing platforms for good practice, etc.

Establishment of platforms to facilitate the sharing of information relating to good practices, which can be valuable for other developing countries and donor countries, around the world.

3 Enhancement of collaboration

- Facilitating collaboration among a variety of actors, in order to improve the effectiveness and efficiency of actions by a wide range of actors worldwide.
- Strengthening collaboration between the United Nations Framework Convention on Climate Change (UNFCCC) and other multilateral environmental agreements, in order to promote mutual collaboration between related fields at the development program and project levels, as well as to promote collaboration at the international level.

BASIC POLICY ON DEVELOPMENT COOPERATION IN THE FIELD OF CLIMATE CHANGE

RECOMMENDATIONS BY EXPERTS' PANEL FOR REALIZATION OF "COOL EARTH"

(2008, MINISTRY OF FOREIGN AFFAIRS JAPAN)

<http://www.mofa.go.jp/policy/environment/warm/cop/policy0803.pdf>