

# Climate Change



Of the 17 Sustainable Development Goals (SDGs), relevant goals are shown in color.

Climate change has impacts on the basis of human life, including the ecosystem, society, and economies. It is a global challenge that poses an enormous threat to economic growth, poverty reduction and human security.

JICA incorporates climate change considerations into its projects and programs in various sectors and makes the most of its diverse aid schemes to meet the needs of each partner country.

## ● Overview of the Issue

The world took a new step in addressing climate change in December 2015 when the 21st Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) adopted the Paris Agreement as the new international framework to replace the Kyoto Protocol.

Climate change manifests itself in various forms, including sea level rise, more frequent extreme weather and natural disasters, and changes in food production and water availability. These are the results of the rising mean temperature due to increasing emissions of greenhouse gases (GHGs) associated with anthropogenic activities such as fossil fuel use and deforestation, which then affect the global cycles of energy and materials such as water.

Measures against climate change are divided into mitigation and adaptation measures. Mitigation measures are designed to reduce GHG emissions or increase GHG removal from the atmosphere through carbon sinks in such sectors as energy, transport, solid waste management, and forestry. Adaptation measures are undertaken in such sectors as disaster risk reduction (DRR), water resources, agriculture, and sanitation to make societies more resilient to changes associated with climate change.

Both mitigation and adaptation measures are important to address climate change.

## ● JICA Activities

### 1. Supporting the Efforts for Reduction of GHG Emissions — Mitigation Measures

In recent years, GHG emissions from developing countries have been increasing rapidly. It is essential that the ongoing efforts to reduce emissions of GHGs or “mitigation measures” involve not only developed countries but also developing countries.

JICA extends cooperation in development projects, including the introduction of renewable energy, promotion of energy saving, improvement of urban public transportation system, solid waste management, forest management and support for afforestation. JICA also provides extensive support for policy and capacity development, such as development of national GHG inventories,<sup>1</sup> establishment of energy-saving laws and low-carbon urban development planning [→ see the Case Study on page 30].

### 2. To Protect People in Developing Countries from the Negative Impacts of Climate Change — Adaptation Measures

Developing countries, and the poor in particular, are extremely



Entrance to the COP21 venue in Paris. During the conference, JICA showcased its various measures against climate change through side events.

vulnerable to the impacts of climate change.

JICA provides assistance for adaptation measures in accordance with regional and national circumstances. These include developing capacity in protection against storm and flood damage, development and appropriate management of water resources, ecosystem protection, promoting irrigated agriculture and dissemination of drought-resistant agricultural crops [→ see the Case Studies on pages 35 and 95]. For example, small island states face extremely high risks associated with climate change, such as coastal erosion and inundation and water scarcity and confront limitations of land, human, and financial resources to address such risks. Therefore, there is a need for international assistance, and JICA offers comprehensive support for adaptation measures against climate change impacts through a combination of various schemes.

### 3. Concurrently Targeting Climate Change and Sustainable Development

Measures to address climate change in developing countries need to be implemented together with efforts to address challenges for sustainable development. By drawing on past experiences and achievements in supporting sustainable development, and reflecting on international discussions on climate change, JICA provides support for measures to address climate change in developing countries from policy-level support to field-level implementation of projects and research, while collaborating with both domestic and international stakeholders.

1. An inventory of the estimated amounts of GHGs a country emits or removes in one year.