

Confronting the threat of climate change with Partner countries

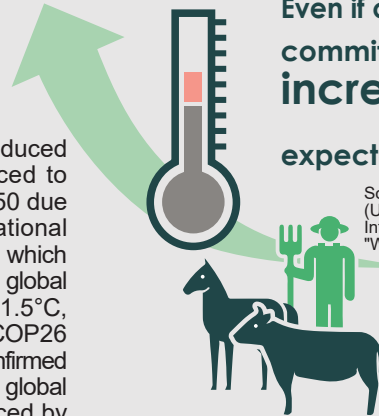
JICA is committed to provide support for climate change that requires immediate action, to enhance the ability to cope with climate change, and to help achieving a sustainable society.

In order to stop the enormous negative impact of climate change on the economy and society, we must drastically reduce greenhouse gas emissions. JICA will contribute to solving global issues in cooperation with partner countries that are having difficulty combating climate change and promoting sustainable development at the same time.



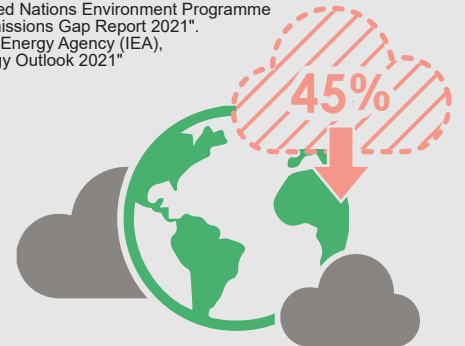
What is the 1.5°C target?

If greenhouse gas emissions are not reduced soon, 216 million people could be forced to migrate within their own countries by 2050 due to climate change. In 2015, the international community adopted the Paris Agreement, which states that efforts need to be taken to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels. At the COP26 international conference in 2021, it was confirmed that this '1.5°C target' will be pursued and global carbon dioxide emissions must be reduced by 45% from 2010 levels by 2030.



Even if countries achieve their current voluntary commitments, the **temperature increase** from pre-industrial times is expected to **exceed 1.5°C**

Source: United Nations Environment Programme (UNEP), "Emissions Gap Report 2021"; International Energy Agency (IEA), "World Energy Outlook 2021"



If greenhouse gas emissions are not reduced soon, **216 million people** could be forced to **migrate** within their own countries by 2050 due to climate change.



To achieve the 1.5°C target of the Paris Agreement, **carbon dioxide emissions must fall by 45%** from 2010 by 2030

Source: Glasgow Climate Pact (2021)

Impacts of climate change on partner countries

In a situation where the world must work together to achieve the 1.5°C target, partner countries find themselves in a difficult position. This is because trying to develop their economies while reducing greenhouse gas emissions is a huge hurdle for countries without well-developed social infrastructure. One of the challenges is the rising cost of electricity due to the need to shift to renewable energy. Natural disasters, which are increasing with climate change, cause extensive damage, especially to fragile infrastructures. It is therefore important for the international community to cooperate and take proactive measures.



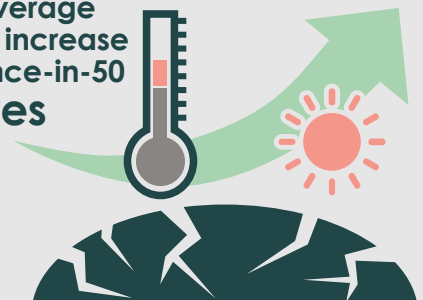
The 2011 Thailand flood was one of the most severe natural disasters in recent times, which also devastated the capital city.

The increasing frequency and severity of natural disasters

Global warming is predicted to increase the frequency and severity of natural disasters around the world. According to a 2021 report released by the United Nations Intergovernmental Panel on Climate Change (IPCC), a 2°C increase in average temperature will result in a 13.9-fold increase in the frequency of once-in-50-year heat waves. While areas affected by increasingly severe droughts are expected to grow, heavy rainfall is also expected to increase and intensify in more areas as the water cycle becomes more active.

A 2°C increase in average temperature would increase the frequency of once-in-50-year heat waves by **13.9-fold**

Source: United Nations Intergovernmental Panel on Climate Change (IPCC), "Sixth Assessment WG1 Report" (2021).



Japan's knowledge can contribute to solving the global issue of climate change faced by the whole world

In the fight against climate change, cooperation with partner countries with weak social systems is essential. Japan has been supporting partner countries to create measures for climate change in order to achieve the goals of the Paris Agreement.

JICA can contribute to the achievement of decarbonization and building a society that is resilient to climate change by mainstreaming climate change into various development projects making use of its past experience and network.

Approach 1

Promote implementation of the Paris Agreement

In partner countries, greenhouse gas emissions are increasing due to economic development and population growth, but on their own they lack the funds and capacity to reduce emissions and strengthen adaptation capacity as stipulated in the Paris Agreement. Therefore, we will support the implementation of climate change measures in partner countries through capacity development for the formulation, implementation, and monitoring of various plans, as well as strengthening the institutional capacity of organizations working on climate change issues.

In order to achieve carbon neutrality, JICA will also provide support according to the level of greenhouse gas emissions, taking into account the institutional capacity, human resources, and objectives related to climate change in each country.

1 Support for the development and implementation of plans

Through technical cooperation, JICA will support the government agencies in charge of climate change in partner countries to strengthen their capacity to formulate, implement, and monitor Climate Change Plans and Long-Term Strategies, promote the transition to a decarbonized society and the creation of a climate change resilient society by utilizing Japan's knowledge and experience.

2 Strengthen the greenhouse gas inventory and transparency framework

JICA will strengthen the capacity of partner countries to continue to submit their Biennial Transparency Reports that include inventories of annual greenhouse gas emissions and sinks, and support progress on national reduction targets. We will work in cooperation with relevant organizations to demonstrate a mutually complementary relationship with the efforts of the Government of Japan.

3 Introduction and use of climate finance

JICA will promote climate change mainstreaming in policies by facilitating the efforts of partner country governments through the provision of programme loans to facilitate the realization of policies that contribute to climate change action and the Green Climate Fund. With regard to project implementation, we will systematize measures and maximize results through a combination of financial and technical cooperation support.

Approach 2

Co-benefits of climate change

In order to support climate change measures in partner countries, it is important to take a "co-benefit" approach that aims to achieve objectives through sustainable development while also yielding co-benefits by reducing greenhouse gas emissions. JICA will work to achieve development issues while incorporating both mitigation measures to reduce and absorb greenhouse gas

emissions and adaptation measures to avoid and moderate the damage projected to be caused by climate change. By integrating climate change measures into all development projects, we aim to achieve decarbonization and build a society that is resilient to climate change.

Mitigation

Greenhouse gas emissions reduction and enhancement of absorption



▶ **Energy**

Strengthen power transmission and distribution networks, introduce renewable energy, and promote energy conservation in order to enable sustainable use of stable and affordable energy.

▶ **Urban development, transportation and traffic**

Support the development of low-carbon and environmentally friendly cities, including the improvement of public transportation systems in cities, and creation of sustainable cities, providing comprehensive services from planning to infrastructure development.

▶ **Conservation of forests and other natural environments**

Promote prevention of the decline and deterioration of the natural environment that plays a major role in absorbing carbon dioxide, such as forests. This will also lead to the conservation of biodiversity and the prevention of desertification.

In addition to these

Solar sharing (using the same land for both agriculture and solar power generation), reduction of greenhouse gas emissions in sewage and waste treatment, etc.

Adaptation

Building a climate change resilient society



▶ **Disaster risk management**

Conduct a flood risk assessment based on climate change impact projections mainly in the Asian monsoon region to reduce flood risk through flood control projects for infrastructures without good maintenance.

▶ **Water resource management**

Promote planning for comprehensive water resource management based on climate risk, measures such as groundwater conservation, and efforts to realize a drought-resilient water supply system.

▶ **Agriculture**

Promote Participatory Irrigation Management, diversify livelihood options through multi-crop cultivation and multiple management, and introduce agricultural insurance to reduce household risk in case of damage.

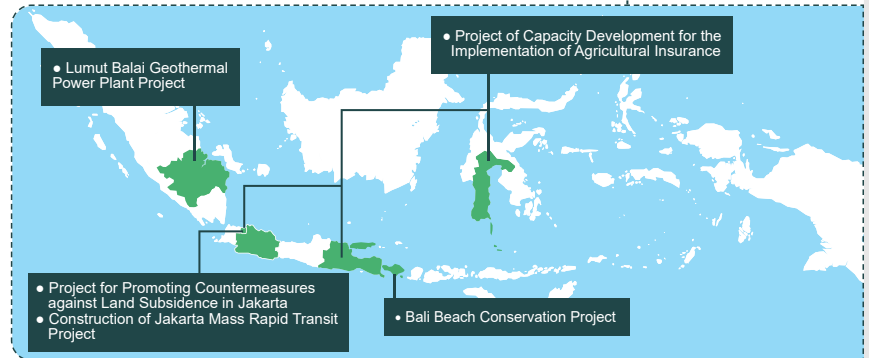
In addition to these

Strengthening measures against various infectious diseases caused by climate change, etc.

1 Increased Support for Climate Change Measures in Various Sectors in Indonesia

Indonesia, the world's fourth most populous country, has a growing economy and is an island nation like Japan. Also like Japan, it is prone to natural disasters. That is why JICA has been providing support in terms of both mitigation and adaptation to climate change. An example of the mitigation measures is the Jakarta Mass Rapid Transit project, which is working to reduce traffic congestion and environmental impact through the construction of the Mass Rapid Transit north-south line. As for adaptation measures, we are focusing on disaster risk management, including the Project for Promoting Countermeasures against Land Subsidence in Jakarta, Bali Beach Conservation Project, and a program loan to improve policies related to disaster risk management. We are also helping to strengthen the country's Agricultural Insurance system.

Major climate change support in Indonesia



This project is expected to reduce greenhouse gas emissions by 4.4 million tons (carbon dioxide equivalent) over 20 years.

2 Forest Conservation in East Timor Improves Livelihoods of Residents

In Timor-Leste, deforestation and overgrazing to expand farmland has led to increased greenhouse gas emissions. Flooding and drought have increased as a result of climate change. JICA has been working for many years to support the development of a model for sustainable conservation and management of forests and other natural resources, and in 2021, a forest conservation project using this model was approved by the Green Climate Fund, a multilateral fund that supports climate change measures in partner countries. The project also aims to improve the livelihoods of residents who are implementing sustainable agriculture and forestry.

Collaborating with Partners

Mobilize Various Types of Finance and Work in Partnership with Ministries, Local Governments, and the Private Sector.

Collaboration across public and private sectors is essential to taking action against climate change. JICA will support partner countries by utilizing Japan's knowledge and technologies, including companies with innovative technologies and local

governments that are promoting initiatives to realize a decarbonized society. JICA will pursue development with greater impact by mobilizing a variety of funds, including the Green Climate Fund and private funds through the issuance of bonds.



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Japan International Cooperation Agency (JICA) is an international cooperation organization that is centrally responsible for the implementation of bilateral assistance among Japan's Official Development Assistance. JICA cooperates with about 150 countries and regions around the world.

What is Global Agenda?

JICA's cooperation strategies for global issues. JICA, with its partners, aims to show global impacts realizing the goals set under JICA Global Agenda. JICA Global Agenda and its goals will be shared among partner countries and various actors, enhancing dialogue and collaboration, therefore, maximizing the development impacts. Through these efforts, JICA will comprehensively contribute to the achievement of the SDGs by 2030 as well as realize Japan's Development Cooperation Charter which focus on "human security," "quality growth," and "addressing global challenges".