

# Cooperation on Climate Change

— Towards a sustainable and zero-carbon society —



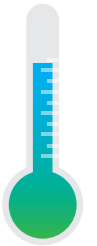
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November 2023





(C) JICA/Shinichi Kuno



## Human security

## High quality growth

Climate change is a threat to the stability, prosperity, and human security of all regions and countries of the world. If the international community does not take appropriate and adequate measures to address climate change in a timely manner, there is a growing risk that the negative impacts of climate change, such as high temperatures, droughts, heavy rains, storm surges, and rising sea levels, will have devastating consequences on the world's economies and societies. Developing countries are particularly vulnerable to these impacts. JICA, as a partner of developing countries, aims to ensure human security and sound economic growth, and will cooperate with each country to address climate change.

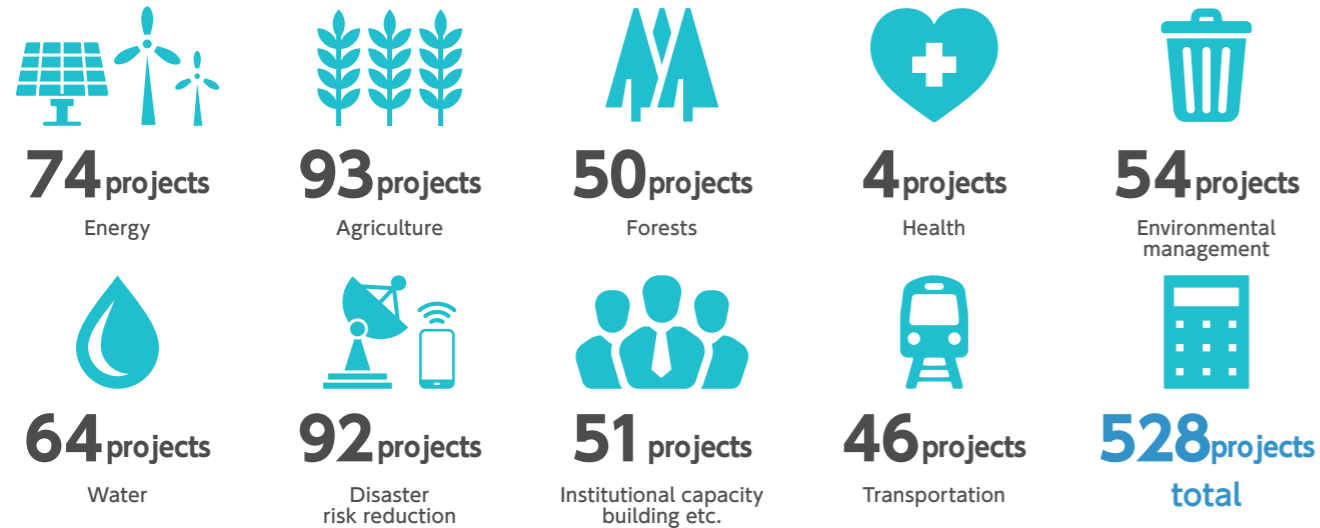


## JICA's climate change cooperation in numbers

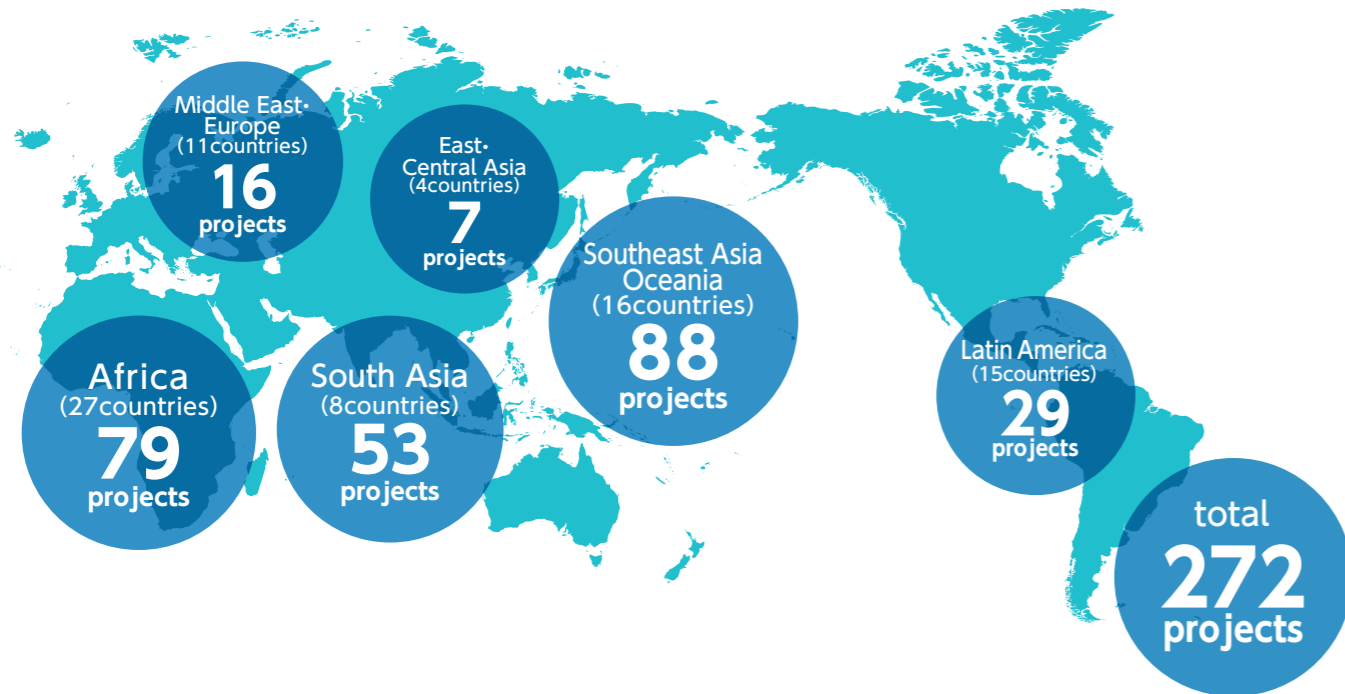
JICA integrates climate actions in various regions and sectors.

### Number of projects (2022)

#### ▼By sector\*1



#### ▼By region\*1\*2



### Knowledge Co-Creation Programs in Japan (2022)

Number of projects ..... **256 projects**

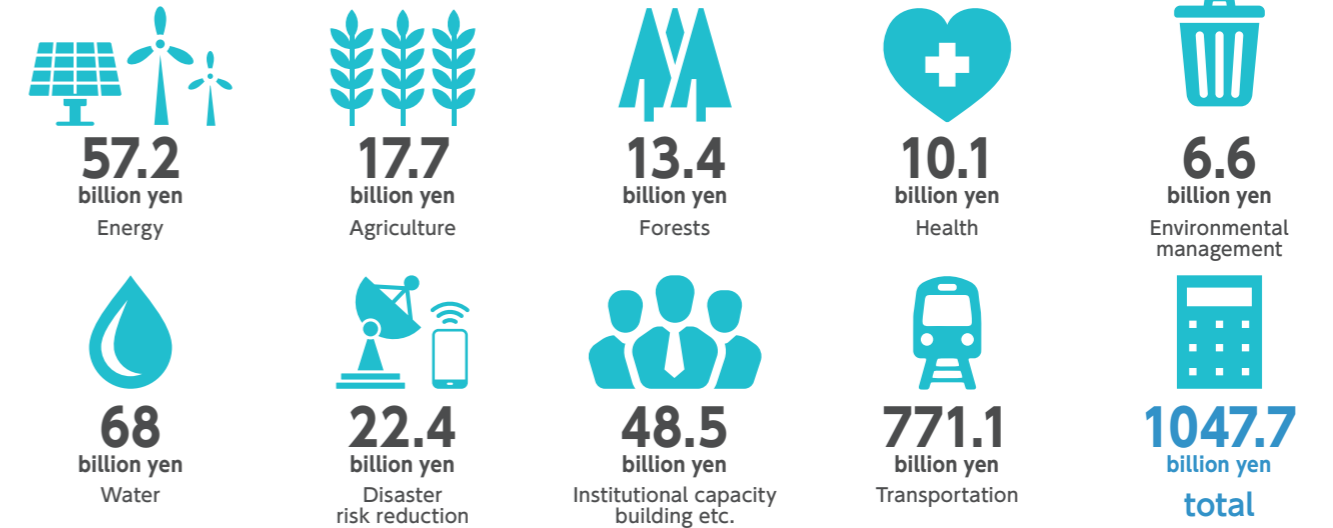
\*1 Some number of Finance and Investment Cooperation is not included.

\*2 The data does not include training programs in Japan that accept participants such as administrative officials and technical officers from developing countries to acquire technical skills and knowledge.

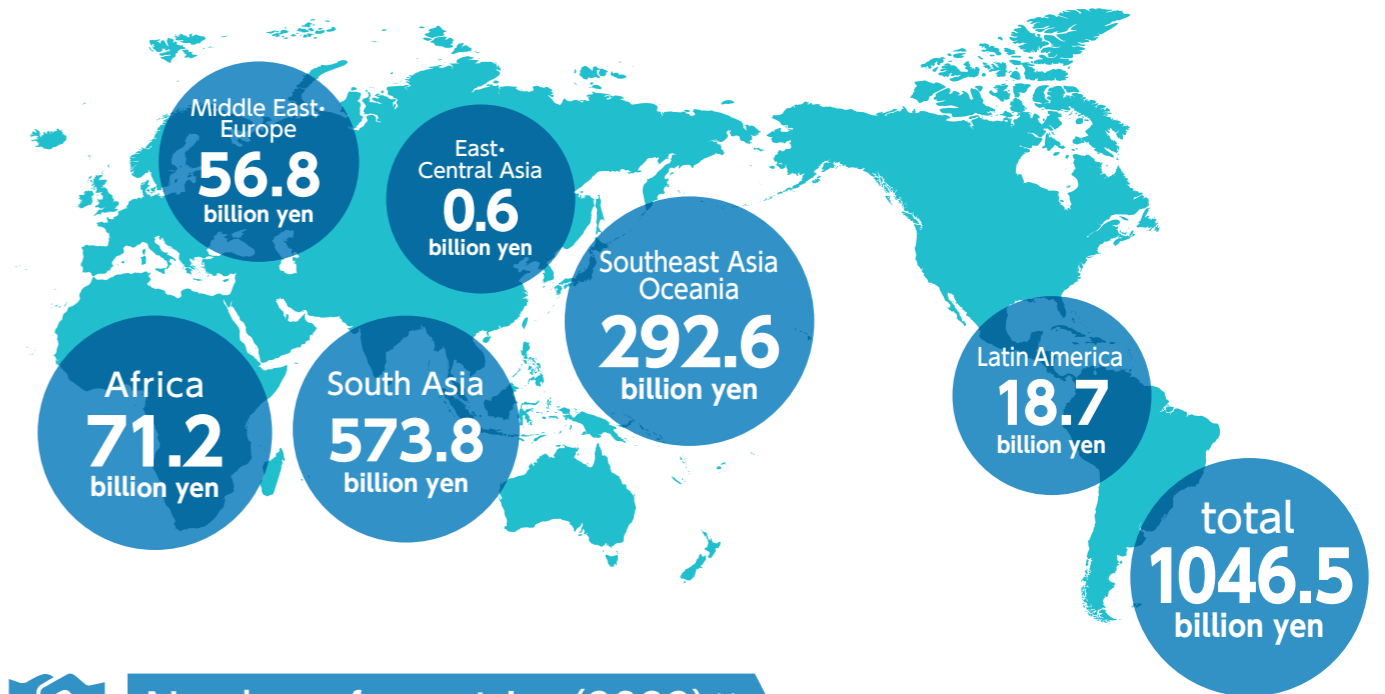
\*3 Some number of Finance and Investment Cooperation is included only in the total amount.

### Total aid amount (2022)

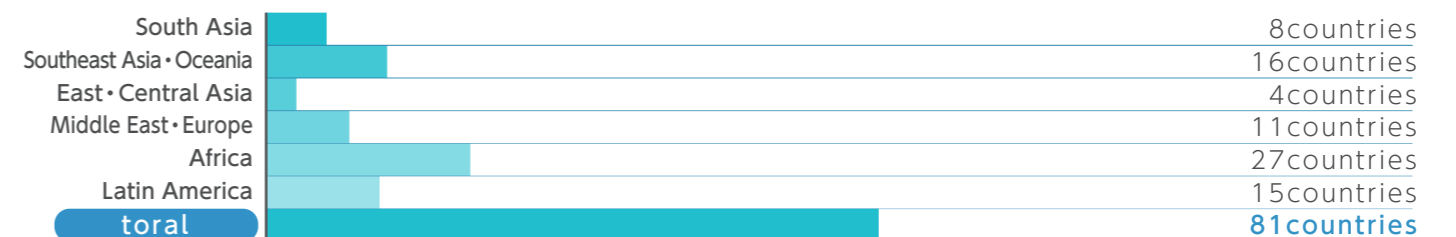
#### ▼By amount sector\*3



#### ▼By amount region\*2\*3



### Number of countries (2022)\*1



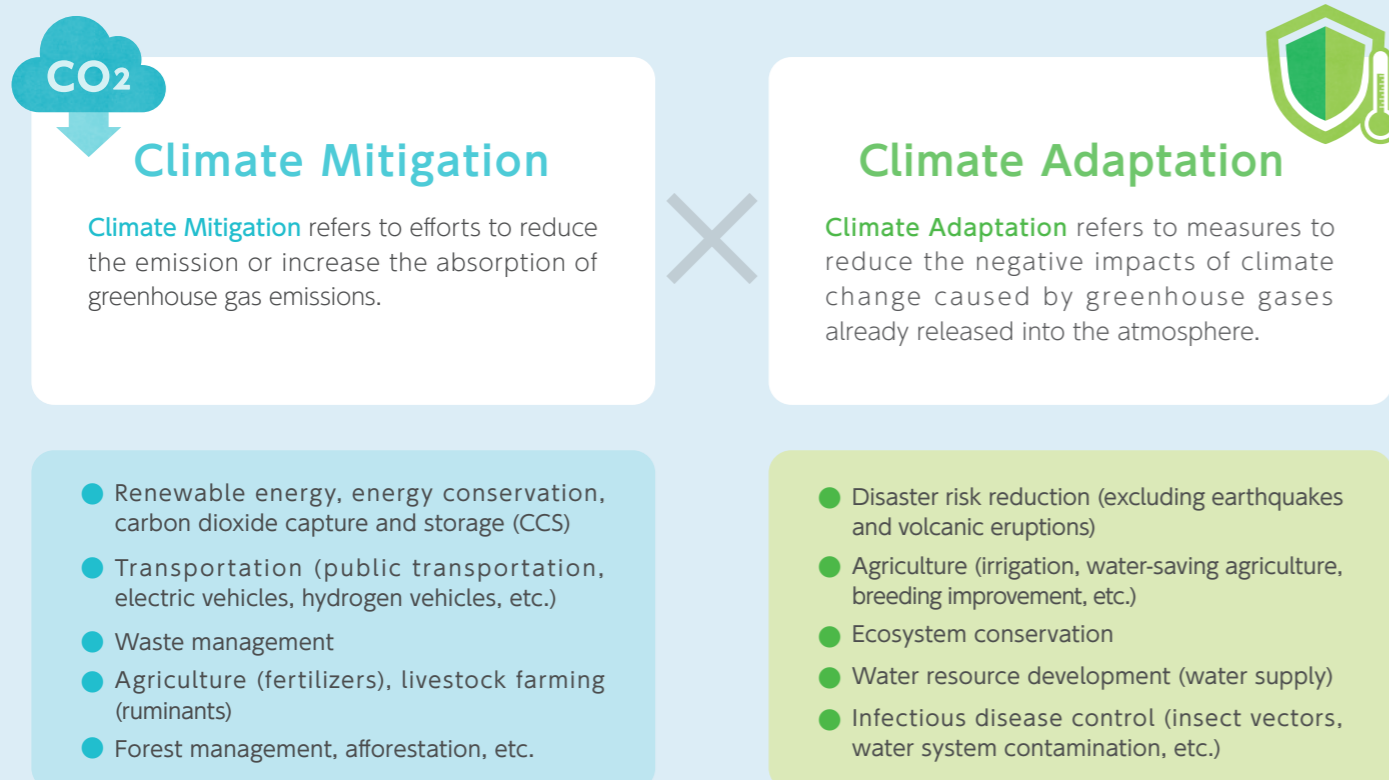
## JICA's Main Cooperation Schemes

JICA provides Japan's Official Development Assistance (ODA) in three forms: bilateral technical cooperation, finance and investment cooperation, and grants.

<b>TECHNICAL COOPERATION</b>	Technical cooperation involves dispatch of experts, provision of necessary equipment and training of personnel from developing countries in Japan and other countries. Cooperation plans are tailored to address a broad range of issues.
<b>FINANCE AND INVESTMENT COOPERATION</b>	<p><b>ODA loan</b> ODA loans support developing countries by providing low-interest and long-term concessional funds. ODA loans are used for large scale infrastructure and other forms of development that require a substantial amount of funds.</p> <p><b>Private Sector Investment Finance</b> JICA supports the private sector to accelerate developing countries' economic/social growth through investments and loans for development projects proposed by private companies.</p>
<b>GRANTS</b>	JICA offers developing countries financial resources needed for social and economic development, without repayment obligation. Grants are utilized for improving basic service infrastructure such as schools, hospitals, water supply facilities and roads, along with procuring equipment for health and medical care, training and other urgent needs.

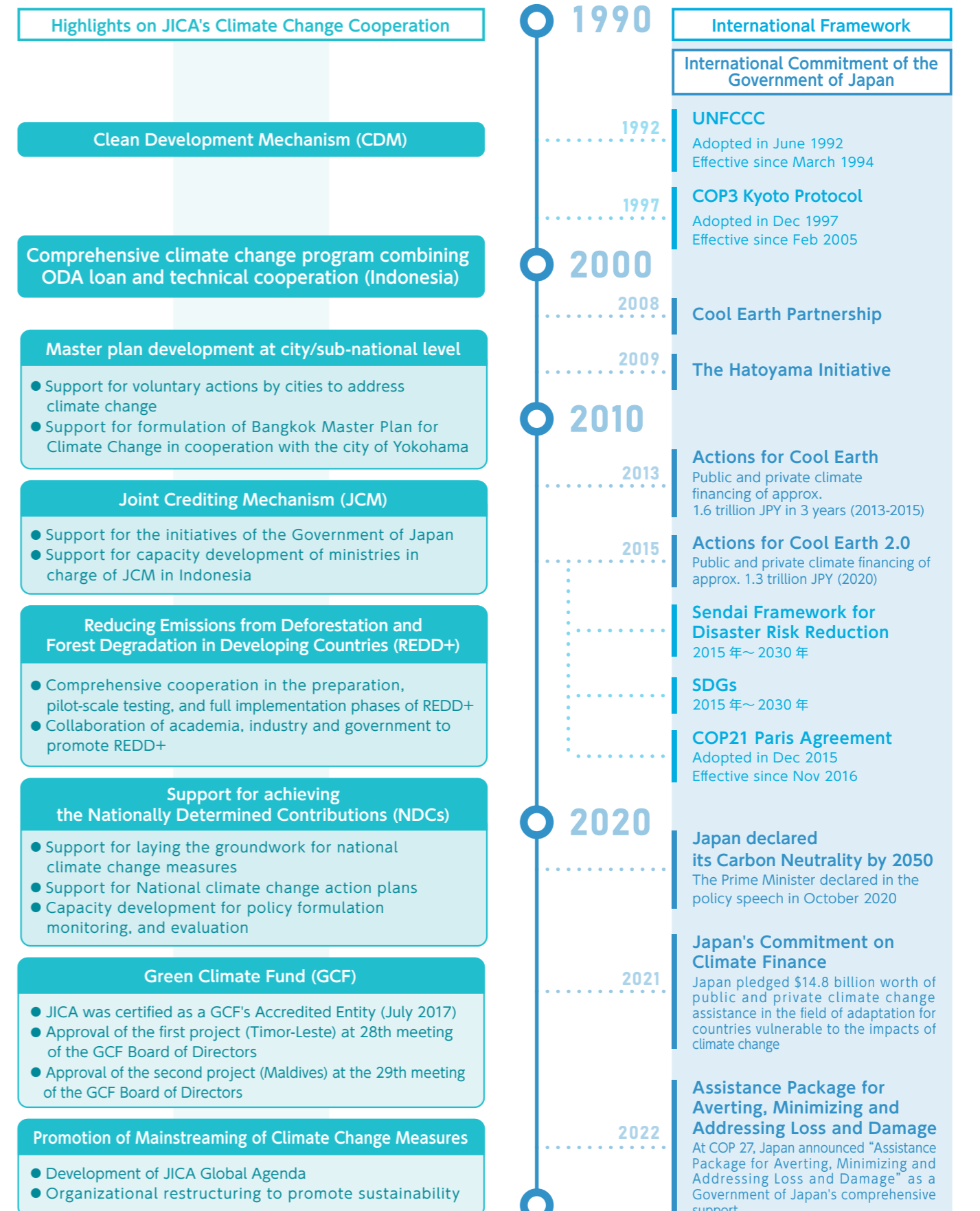
## Climate Mitigation and Adaptation

JICA promotes the implementation of climate change mitigation and adaptation measures, while taking loss and damage into consideration.



## International Climate Change Framework and JICA's Work

The needs in developing countries have changed in accordance with the shift in trends for domestic and international climate change policies and frameworks. JICA adopts regional and country specific approaches by responding to the various needs and circumstances of each country.



# JICA Global Agenda No.16 Climate Change

## Mobilizing a Wider Range of Resources to Tackle Global Issues

Pursuing economic prosperity and human dignity, the world is facing many challenges, including climate change, which threatens the very survival of all life, along with difficulties such as COVID-19 and frequent armed conflicts. Addressing these global issues will require the international community to make a united effort mobilizing a wider range of resources. JICA is committed to contributing to achieving the SDGs in partner countries and addressing global challenges together with its mission to work on human security and quality growth. To this end, JICA has set 20 cooperation strategies for global issues, collectively referred to as "JICA Global Agenda" from the four perspective of: Prosperity, People, Peace, and Planet.

### Prosperity



We support the development of high quality infrastructure, stable energy supply, development of industries, and improvement of farmers' livelihoods, which are the foundation and driving force of economic growth in developing countries. We assist to realize sustainable, strong, and prosperous societies.

- 1 Urban and Regional Development    2 Transportation
- 3 Energy and mining    4 Private Sector Development
- 5 Agriculture and rural development (Sustainable Food Systems)

### People



We support stable healthcare services, infectious disease control, improved nutrition, and quality education for all people. We will achieve a society where children, people with disabilities, and other vulnerable groups are included and no one is left behind.

- 6 Health    7 Improving Nutrition
- 8 Education    9 Social Security / Disability and Development
- 10 Sport and Development

### Peace



We will realize a peaceful and just society that shares universal values such as freedom, democracy, respect for fundamental human rights, and the rule of law, and that ensures stability and security. We will promote gender equality and utilize digital technology to solve problems.

- 11 Peacebuilding    12 Governance
- 13 Public Finance and Financial System
- 14 Gender Equality and Women's Empowerment
- 15 Digital for Development

### Planet



We will respond to global issues such as climate change and environmental problems, which the international community must address together, and realize sustainable and resilient societies in developing countries where there are concerns about serious impacts.

- 16 Climate change
- 17 Natural Conservation    18 Environmental Management
- 19 Sustainable Water Resources and Water Supply
- 20 Disaster Risk Reduction through Predisaster Investment and Build Back Better

Climate change is set as 16th Strategy for Global Development Issues. JICA is committed to providing support for climate change, which demands immediate action, in an effort to enhance the ability to cope with climate change, and to assist in achieving a sustainable society.

### JICA's Cooperation on Climate Change (Video)

Climate change is a global issue that transcends borders and is being actively addressed by many countries. JICA, with its vision of "Leading the world with trust," works with a wide range of partners in order to promote climate resilient societies and carbon neutral transitions for the sustainable development of partner countries. We invite you to watch a video summarizing JICA's efforts on climate change.



YouTube

## Two cooperation approaches for addressing challenges

### Approach 1 Promote implementation of the Paris Agreement

Greenhouse gas emissions are rising in partner countries due to economic development and population growth, but they lack the funds and capacity to reduce emissions and strengthen adaptation capacity as stipulated in the Paris Agreement on their own. Therefore, we will support the implementation of climate change measures in partner countries through capacity development for the formulation, implementation, and monitoring of various initiatives, 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.

#### Targets

- Number of countries supported to formulate and/or update and implement various climate change plans by 2030 (at least 10 countries)
- Number of people trained (more than 10,000 people)

#### 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, while promoting 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

"JICA's Co-Benefits Approach to Climate Change" is a response that aims to achieve sustainable development while also yielding co-benefits with adaptation and mitigation to contribute to Climate Resilient Development (CRD).

These measures aim to maximize synergies and minimize potential trade-offs with sustainable development while considering the natural environment and biodiversity.

#### Targets

- Number of projects promoting climate co-benefit using climate change Finance Impact Tool (Climate-FIT) by 2030 (more than 500 projects)
- Green house gas emission reductions by 2030 (4 million CO<sub>2</sub>e tons/year)\*
- Double the contribution to climate change adaptation by 2030
- By 2025, scale of climate change action projects to reach 1 trillion yen/year and beneficiaries of 380 million people.

\*The baseline for amount of green house gas emission reductions shall be the average of the planned amount for 2016-2019

#### 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.

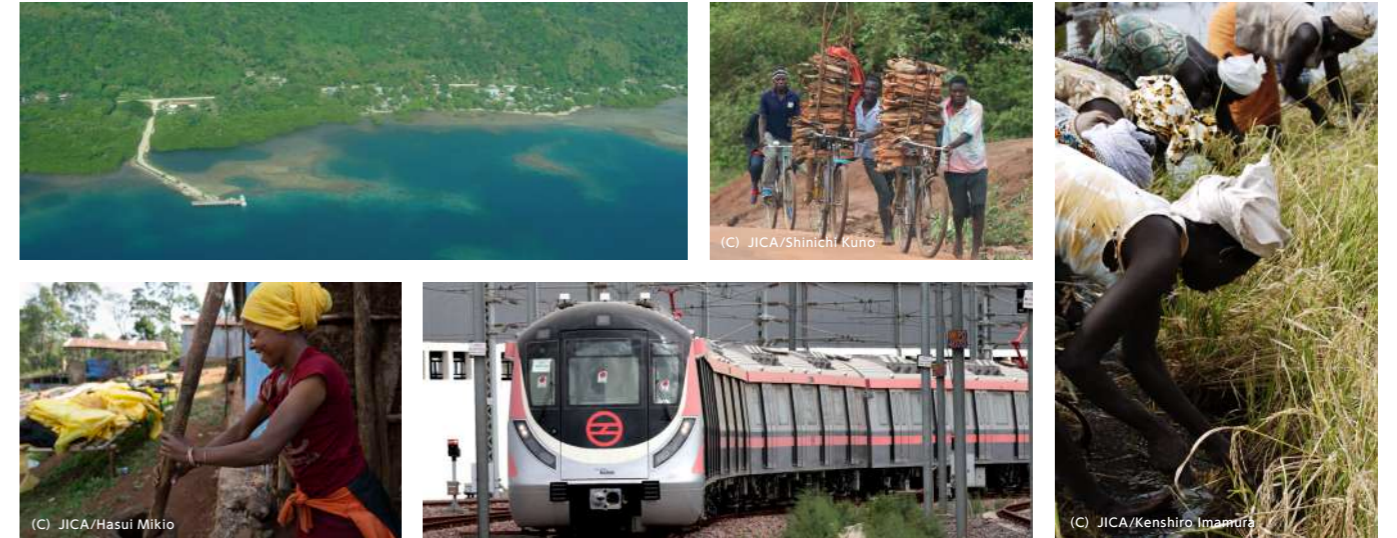
#### In addition to these

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

# Mainstreaming climate change measures

~ Incorporating climate change measures into all development projects ~

In order to ensure the human security and development of developing countries under climate change, it is necessary to pursue both solutions to address development issues and implement measures to combat climate change. Based on this concept, JICA is mainstreaming climate change mitigation and adaptation in the planning stages of all projects in various sectors such as energy, transportation, urban development, agriculture, disaster risk reduction, and forest conservation.



At the project planning stage, JICA assesses the elements that contribute to climate change mitigation and adaptation in the project design.

### Climate Change Finance Impact Tool (JICA Climate-FIT) for Mitigation & Adaptation

In order to facilitate cooperation policy reviews and formation of projects to address climate change in developing countries, JICA Climate Finance Impact Tool (Climate-FIT) facilitates to estimate greenhouse gas emissions reductions, and assess climate change impacts and vulnerability, thereby mainstreaming climate change measures in the projects.

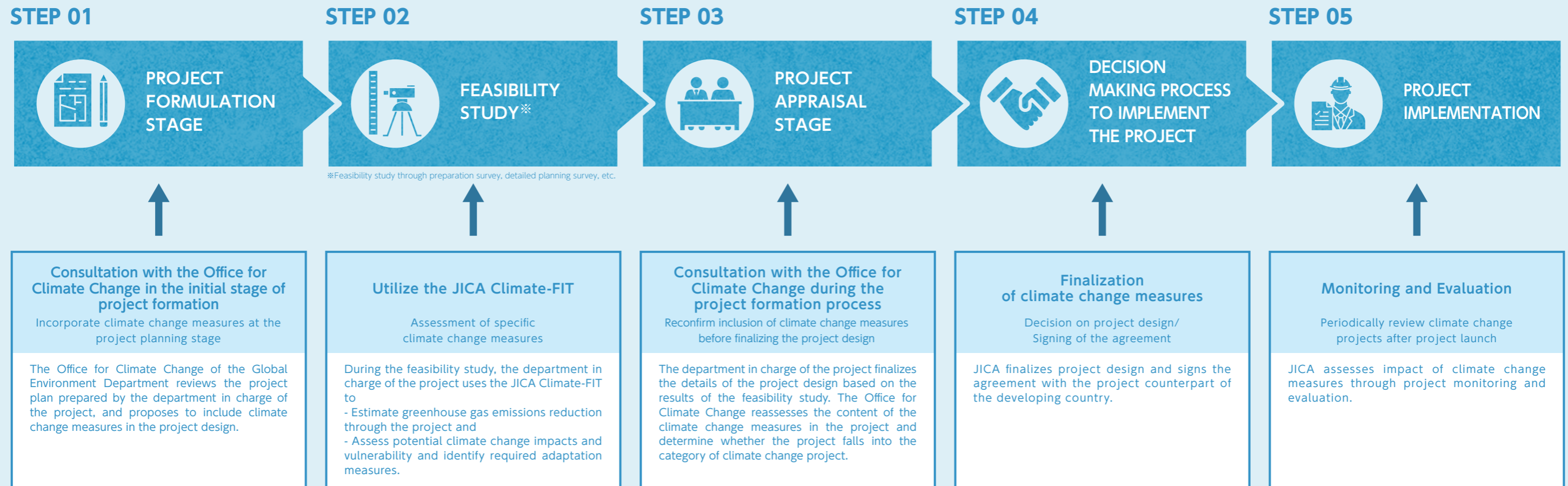
Scan the QR code below for more information on JICA Climate-FIT



Mitigation



Adaptation



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# JICA's support for climate action in Indonesia

JICA provides support for climate actions in various sectors, capitalizing Japan's experience and technology. In Indonesia, for example JICA is providing support for climate action in various regions and sectors.



**Lumut Balai Geothermal Power Plant Project**  
FINANCE AND INVESTMENT COOPERATION

Loan agreement (L/A) signed on March 2011 for 26.97 billion JPY



**Objective**

- Improving the stability of electricity supply
- Diversification of energy sources



**Construction of Jakarta Mass Rapid Transit Project**  
FINANCE AND INVESTMENT COOPERATION

Construction of Jakarta Mass Rapid Transit Project (E/S)  
Construction of Jakarta Mass Rapid Transit Project (I)  
Construction of Jakarta Mass Rapid Transit Project (II)  
Construction of Jakarta Mass Rapid Transit Project (Phase 2) (I)




**Objective**

- Mitigation of traffic congestion
- Mitigation of climate change
- Improvement of the investment environment in the Jakarta metropolitan area
- Increase in passenger transport capacity

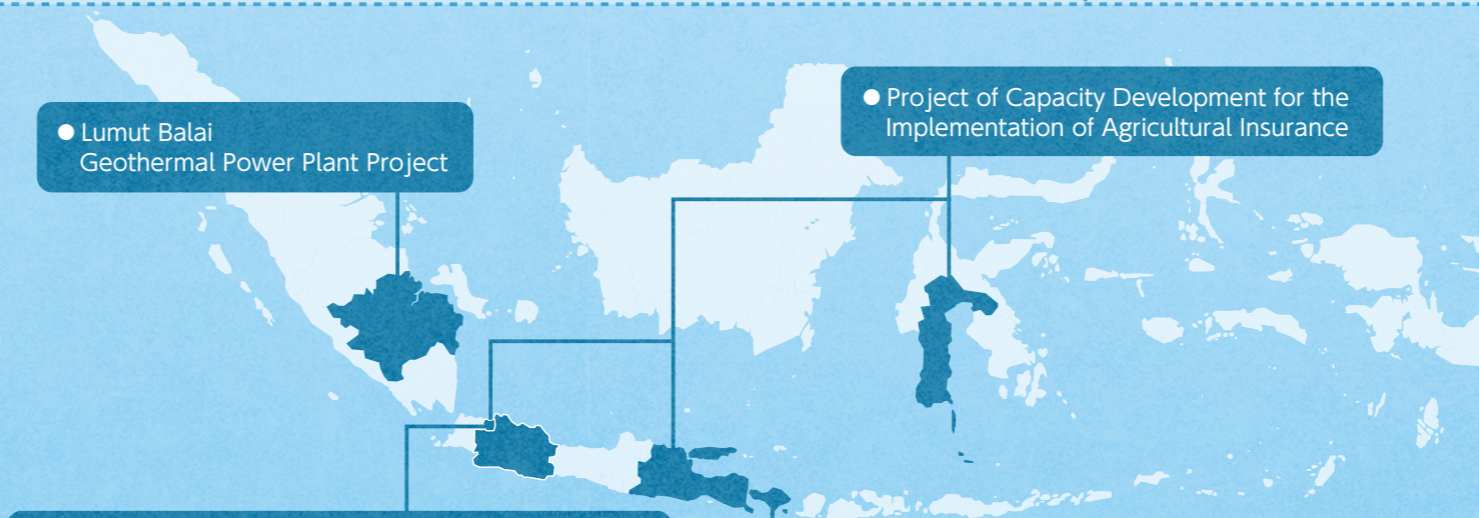
This project changed not only the social system but also people's mindset and behaviors. Overcoming many challenges, the MRT North-South Line Project contributes to Jakarta economically, socially and environmentally. Now we are moving to the phase 2, which will expand the MRT network and integrate other transportation system towards sustainable green city. We hope we can replicate our system and practices to other cities in the country.



PRESIDENT DIRECTOR OF PT. MRT JAKARTA (served since October 2016)  
**Dr. WILLIAM SABANDAR**

**Objective**

- Mitigation of traffic congestion
- Mitigation of climate change
- Improvement of the investment environment in the Jakarta metropolitan area
- Increase in passenger transport capacity



- Project of Capacity Development for the Implementation of Climate Change Strategies (2nd Phase) [covers all of Indonesia]
- Lumut Balai Geothermal Power Plant Project
- Project of Capacity Development for the Implementation of Agricultural Insurance
- Project for Promoting Countermeasures against Land Subsidence in Jakarta
- Construction of Jakarta Mass Rapid Transit Project
- Bali Beach Conservation Project




**Project for Promoting Countermeasures against Land Subsidence in Jakarta**  
TECHNICAL COOPERATION for Development Planning




**Objective**

- Reducing the vulnerability for inland water inundation, flood, and sea water rise
- Countermeasures against land subsidence



**Bali Beach Conservation Project**  
FINANCE AND INVESTMENT COOPERATION

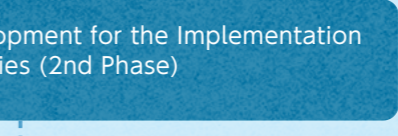


**Phase 1**  
(Support for construction of shore reclamation facilities, jetties, submerged breakwaters, and detached breakwaters in southern Bali)  
Loan agreement (L/A) signed on December 1996 for 9.51 billion JPY


**Phase 2**  
(Support for coastal conservation in eastern Bali and capacity building of organizations in charge of coastal maintenance management)  
Loan agreement (L/A) signed on March 2017 for 9.86 billion JPY

**Objective**

- Achieve sustainable coastal management
- Reduce damage from coastal erosion
- Promote tourism industry



**Project of Capacity Development for the Implementation of Climate Change Strategies (2nd Phase)**  
TECHNICAL COOPERATION



**Objective**

- Mainstreaming climate change into development planning
- Strengthening capacity for planning, implementation and monitoring of adaptation measures



**Project of Capacity Development for the Implementation of Agricultural Insurance**  
TECHNICAL COOPERATION



**Objective**

- Reducing the risk of income loss for farmers by promoting agricultural insurance
- Strengthening the agricultural insurance system

Mr. Anang Noegroho  
Director for Food and Agriculture, Ministry of National Development Planning/ National Development Planning Agency (BAPPENAS)

## Overview of JICA's Climate Change Projects

This introduces JICA's support for climate actions in its two cooperation approaches.

### Approach 1 Promote implementation of the Paris Agreement

**Samoa**



Institutional capacity building etc. Adaptation

#### The Project for Construction of the Pacific Climate Change Center

GRANTS (Grant agreement (G/A))

Grant agreement (G/A) signed on  
February 2017 for 960 million JPY

#### The Project for Capacity Building on Climate Resilience in the Pacific

TECHNICAL COOPERATION

Project period  
July 2019 to January 2023

The Pacific region is extremely vulnerable to the impacts of climate change. There are concerns that disasters caused by climate change will continue to become more severe and frequent. The region's ability to adapt to climate change remains an issue. Through grant aid, JICA supported the construction of the Pacific Climate Change Center as a training facility under the Secretariat of the Pacific Regional Environment Programme (SPREP), a regional organization headquartered in Samoa. In addition, under the technical cooperation project "The Project for Capacity Building on Climate Resilience in the Pacific", the Center is implementing capacity development of relevant ministries and agencies in the Pacific region through training on climate change adaptation and mitigation measures and improving access to climate finance. Through implementation of the training, the Center will strengthen its capacity to carry out training and further contribute to improving the climate resilience of the Pacific region.

#### Support for planning and implementation of the Nationally Determined Contributions in Vietnam (SPI-NDC)

TECHNICAL COOPERATION

Project period June 2021 to June 2024

In 2020 the Vietnamese government updated its Nationally Determined Contribution (NDC) (voluntary greenhouse gas emission reduction target) with a new target for 2030, in 2021 the government also declared carbon neutrality by 2050 and in 2022 renewed its NDC. In addition to strengthening the domestic system to steadily promote the Paris Agreement, Vietnam has amended its Law on Environmental Protection to be a legal basis to endorse the domestic implementation of NDC, which requires greenhouse gas accounting and reporting at the private sector level. To support the Vietnamese government's implementation of NDC, JICA is strengthening the capacity of the Ministry of Natural Resources and Environment (MONRE), as well as the monitoring capacity of ministries and private companies to provide support in the promotion of comprehensive climate change measures, including not only governments but also private sectors.



Institutional capacity building etc. CO2 Mitigation Adaptation

Vietnam

#### Project to Strengthening Institutional Capacity for Implementation of Bangkok Master Plan on Climate Change 2013-2023

TECHNICAL COOPERATION

Project period December 2017 to December 2022

The Bangkok Metropolitan Administration (BMA) has been actively working on climate change, starting with formulation of the BMA Climate Change Action Plan (2007-2012) which set a target of 15% reduction in greenhouse gas emissions, followed by the BMA Climate Change Master Plan 2013-2023 and 2021-2030 as a comprehensive long-term plan on climate change. JICA has assisted with formulation, implementation, monitoring and evaluation of the Master Plan since 2009. With the support of JICA, BMA is making further efforts to achieve 19% reduction in greenhouse gas emissions by 2030 via strengthening the coordination capacity and implementation system of relevant departments through the establishment of the Climate Change Strategy Office and by monitoring quantitative emission reductions to verify the progress of the Master Plan.



Institutional capacity building etc. CO2 Mitigation Adaptation

(C) Overseas Environmental Cooperation Center

Thailand



Approach 2 Co-benefits of climate change

**India**

(C) JICA/Shinichi Kuno

**Delhi Mass Rapid Transport System Project**

FINANCE AND INVESTMENT COOPERATION

**Phase1** (Development of metro corridors (mass rapid transport system) in central Delhi)

Loan Agreement signed on Feb 1997 for 162.75 billion JPY

**Phase2** (Development of metro corridors connecting central Delhi and the neighboring areas)

Loan Agreement signed on Mar 2006 for 211.98 billion JPY

**Phase3** (Development of inner and outer metro corridors in Delhi)

Loan Agreement signed on Mar 2012 for 330.48 billion JPY

Recently, the population of major cities in India has increased dramatically, and the increased ownership of private vehicles has resulted in serious traffic congestion and environmental problems due to the exhaust gases. This project promoted modal shift from automobiles to metros by constructing underground and elevated mass rapid transport system in Delhi. It eased traffic congestion, reduced air pollution caused by exhaust gases, and contributed to greenhouse gas emissions reduction, thereby stimulated the economy and improved the environment.



**Pasig-Marikina River Channel Improvement Project**

FINANCE AND INVESTMENT COOPERATION

**Phase 1**

Loan Agreement signed on Dec 1999 for 1.17 billion JPY

**Phase 2**

Loan Agreement signed on Feb 2007 for 8.53 billion JPY

**Phase 3**

Loan Agreement signed on Mar 2012 for 11.84 billion JPY

**Phase 4**

Loan Agreement signed on Jan 2019 for 37.91 billion JPY

The Philippines is one of the countries most prone to natural disasters in the entire world, and Metro Manila is particularly susceptible to typhoons due to its location in a coastal lowland. Flooding has severely damaged the economic and social activity of the area. The government of the Philippines has been working on water drainage and flood control over the past 50 years; with flood control of the Pasig-Marikina River, which flows through Metro Manila, being a particularly important and urgent issue. This cooperation aims to reduce flood damage in the central part of Metro Manila and contribute to overcoming the region's vulnerability to disasters as well as stabilizing the region's livelihoods and resilience.



**Capacity Development Project for Sustainable Forest Management in the Republic of Kenya (CADEP-SFM)**

TECHNICAL COOPERATION

Project period June 2016 to June 2021

In Kenya, approximately 80% of the country is arid and semi-arid land and the forest area is about 6%. The degradation of forest resources due to the use of wood for charcoal and conversion to agricultural land is an issue. Moreover, Kenya is susceptible to climate change and increase in the frequency of droughts is concerned. As such, securing and maintaining natural resources by increasing forest area has become an important agenda for Kenya, and the constitution stipulates the goal to achieve 10% forest coverage by 2030. The project provides support for the Ministry of Environment and Forestry, Kenya Forest Service, and Kenya Forest Research Institute to formulate effective forest management policies, establish national forest monitoring systems for REDD+ and forest management, and develop breeding techniques of drought-tolerant trees. These actions will contribute to increase the forest coverage in Kenya and strengthen the resilience of the local communities to climate change.



## Green Climate Fund (GCF) Projects

The Green Climate Fund (GCF) is a multilateral fund entrusted with the administration of the system of financing under the UNFCCC to support climate change countermeasures in developing countries. JICA was one of the first Japanese organizations certified as a GCF Accredited Entity (AE), which enable us to formulate projects by using GCF funds.

After the accreditation, two projects suggested by JICA were approved as GCF projects; receiving financial support from GCF, we are committed to tackling climate change in Timor-Leste and Maldives. Making use of our experience assisting developing countries and a wide range of overseas offices, in collaboration with GCF, JICA will mobilize capital to solve problems on climate change and provide support in creating a decarbonized society that is resilient to climate change in developing countries.

### Community-based Landscape Management for Enhanced Climate Resilience and Reduction of Deforestation in Critical Watersheds (Timor-Leste)

GCF Project



For more information (GCF website)



Date approved/Total project value Mar 2021 for 15.4 million USD

### Building Climate Resilient Safer Islands in the Maldives

GCF Project



For more information (GCF website)



Date approved/Total project value Jul 2021 for 66 million USD

In Timor-Leste, unsustainable natural resource management practices, such as shifting cultivation, expansion of farmlands, and animal free overgrazing which leads to an increase in greenhouse gas emissions are the key drivers of deforestation and forest degradation. In turn, floods and droughts, made more intense and frequent due to the effects of climate change, are endangering food security and community livelihood. Through applying the Community-Based Natural Resource Management (CBNRM) approach, which sustainably conserves and manages forests and other natural resources, this project aims at both reducing deforestation and promoting reforestation in collaboration with communities in 74 vulnerable upland communities spread across four watersheds and government agencies in Timor-Leste. Furthermore, it provides the target communities (about 48,000 people), whose livelihoods are dependent on the natural resources, with livelihood options such as agriculture and agroforestry, \* which are more sustainable and resilient to the negative impacts of climate change, in an effort to improve their livelihoods.

\*Agroforestry: the interaction of agriculture and forestry with raising and cultivating livestock and crops among planted trees



Participant of a seedling production training



The Republic of Maldives is comprised of about 1,200 islands in the Indian Ocean. With the ground lying about 1-2 meters above the average sea level, this small archipelago, has been suffering from coastal erosion. Many of these islands have been and will continue to be severely impacted by rising sea levels, swell waves, and storm surges intensified by climate change. Coastal erosion will cause serious damage not only to the inhabited areas and their infrastructure, but also to the coastal ecosystem, water resources, and consequently key livelihoods such as fisheries. Through this project, JICA will support the Maldives government in formulating a national policy on the Integrated Coastal Zone Management (ICZM) to protect the coastal environment and fortify its resilience against disasters. Community-led coastal protection/conservation plans will be prepared based on the ICZM for the five target islands, where approximately 9,000 people live. The project will also strengthen the capacity of stakeholders to establish and operate an early warning system, monitoring systems for waves, sea level, coral reef, and land use. It would also facilitate assessing the impacts of climate change on the coastal areas and undertaking adequate adaptation measures.



Beach at Maamendhoo Island



# Leading the world with trust

Many countries across the world are actively working to address the issue of climate change.

Under the vision of “Leading the world with trust,”

JICA will continue to support transition to climate resilient and zero-carbon societies for the sustainable development of developing countries in cooperation with various partners.

