

# JICA's WORLD

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## Climate Actions: **For the Future of the Planet**





# Special Feature JICA's Climate Actions: For the Future of the Planet

The Paris Agreement is the global framework for tackling climate change beyond 2020. Today, JICA is providing support to accelerate climate actions around the world.

## Multi-faceted support for climate actions

In 2015, the 21st Session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) took place in Paris, France, aiming to define an international framework for reducing greenhouse gas emissions and addressing climate change. The Paris Agreement was adopted as a result. The agreement will take effect starting 2020, with a provision for the ambitious long-term goal to keep the global temperature below 2 degrees above pre-industrial levels by the end of the century, and to pursue efforts to limit the temperature increase even further to 1.5 degrees.

JICA is diversifying its efforts to support climate actions in developing countries. Fields of JICA's cooperation include transport, energy, agriculture,

disaster risk reduction, as well as forest conservation; and, whenever possible, integrates climate actions into projects in various sectors. For example, in a road improvement project connecting two main islands in an atoll in the Republic of Kiribati in the Pacific, future sea-level rise was taken into account and incorporated into the road design. In a project for developing agriculture in Africa, JICA has established mobile phone services that enable farmers to get advance notice of droughts and heavy rains, so they can take action to prevent crop damage. In 2017, the total amount of such climate-related financing by JICA reached approximately 787 billion yen. The government of Japan has announced its intention to mobilize approximately 1.3 trillion yen worth of funds for public and private projects related to climate change in to

developing countries in 2020, while offering access to Japanese knowledge and experience.

We asked JICA Senior Advisor Masato Kawanishi about the actions developing countries are taking to reduce greenhouse gas emissions in accordance with the Paris Agreement. "JICA is supporting a number of developing countries to build policy frameworks to achieve their emission reduction targets. JICA also provides technical cooperation to enable countries to accurately monitor greenhouse gas emissions and absorptions, and compile the data into greenhouse gas inventories\*, so that they can track progress towards achieving their targets."

## Cooperating with cities around the world to combat climate change

Increased attention is given to climate actions at the city level. Primarily because cities, where people and economic activities are concentrated, are responsible for 70% of global greenhouse gas emissions. JICA has signed a memorandum with the C40 Cities Climate Leadership Group (C40), agreeing to cooperate to support climate actions in megacities in Southeast Asia. Projects in this area include Thailand's Bangkok Master Plan on Climate Change, for which JICA is providing design and implementation support (see page 4); development of greenhouse gas inventories, as well as plans to reduce greenhouse emissions in Ho Chi Minh City, Vietnam.

In 2017, JICA became an accredited entity of the Green Climate Fund (GCF), an international fund established based on the UNFCCC to support developing countries gain access to climate finance. This enables JICA to mobilize financial resources other than Japan's

official development assistance (ODA). JICA will actively mobilize GCF finance to meet the fast-growing needs of developing countries for climate actions.

## National, Municipal, Corporate, Individual—Action needed at every level!

Kawanishi explains, "The Paris Agreement stipulates that by the second half of the century, we must have a balance between greenhouse gas emissions and absorptions by forests and other measures, to achieve net zero emissions. This would not be possible unless we reconsider our basic way of life." He continues, "We need efforts at every level, from national to municipal, corporate, and individual."

Even if we are able to achieve net zero greenhouse gas emissions in the future, the gases we have already emitted will remain in the atmosphere and continue to cause global warming for a long period of time. The time has already come for each person on Earth to reconsider the fate of our planet and face the issue of climate change head-on.

\*A greenhouse gas inventory is a database that tracks how much greenhouse gas is emitted and sequestered in a country every year (Ministry of the Environment).

### Masato Kawanishi JICA Senior Advisor (Global Environment)

Kawanishi has been engaged in climate issues as Senior Advisor to JICA since 2005. From 2010 to 2015, he served as Chief Advisor for the Project of Capacity Development for Climate Change Strategies in Indonesia, where he was also involved in the formulation of the Climate Change Program Loan. He holds a Doctorate in Engineering, and is a Chartered Financial Analyst(CFA).



## Two Main Fronts of Climate Actions

Mitigation and adaptation. "Mitigation" means preventing further progress of global warming by reducing, or sequestering, greenhouse gas emission; "adaptation" means minimizing the damage caused by the negative impacts of climate change that are taking place. Some cross-cutting projects address both mitigation and adaptation.

### ADAPTATION Minimizing the negative impacts of climate change

#### Examples

- Measures against drought (water resource management, irrigation)
- Flood control, early warning systems
- Infection control (against water/insect-borne diseases)
- Improved crops (for heat tolerance)
- Ecosystem/biodiversity conservation

### MITIGATION Reducing greenhouse gas emissions and increasing sequestration

#### Examples

- Shifting to zero-carbon societies
- Energy efficiency and renewable energy
- Implementing measures towards zero-carbon transport, city and regional planning
- Reducing deforestation
- Solid waste management (controlling methane emissions)



# Cooling a Megacity: Bangkok

Cities with large populations and vibrant economies produce large volumes of greenhouse gases (GHGs). Bangkok, one of the largest cities in Southeast Asia, is implementing various measures to deal with climate change in cooperation with JICA.

ADAPTATION MITIGATION



Many people use the Skywalk, which was constructed under an elevated railway to make the station directly accessible from the second and third floors of surrounding buildings.

## Reducing urban traffic congestion

MITIGATION

The MRT Blue line opened in 2004. On average, the Blue line and Purple line together transport 370,000 people per day.



A camera monitors the number of passing vehicles. Trial tests to optimize traffic signals were conducted, which resulted in reduced traffic congestion.

### Learning from Good Examples

#### The City of Yokohama: A Forerunner in Combatting Global Warming

The City of Yokohama established the Climate Change Policy Headquarters (currently Coordination Division) in 2008, and has been making efforts to reduce GHGs, ahead of other cities in Japan. In addition to its traffic policies, the city has led the way in multiple areas: installation of LED street lights powered by solar panels; installation of solar panels and high-capacity lithium ion batteries at elementary schools that can be remotely managed to cut down the use of electricity during peak hours; and the introduction of virtual power plants that can take on the role of emergency power generators during disasters.

#### Kimihiko Kuromizu Chief Advisor

Oversaw the development of Yokohama's transport network, including railways and expressways. Later on served as the first chief of the Global Warming Countermeasures section. He has been working as a JICA expert in Bangkok since May 2018.



### Climate Actions Make Cities More Attractive

"A large volume of GHGs\*<sup>1</sup> are produced by major cities with large populations and vibrant economies. If these cities can reduce GHG emissions, they can significantly contribute to the reduction of emissions in their respective countries. Moreover, combatting air pollution and traffic congestion increases the spatial value of the cities."

These are the views of Kimihiko Kuromizu, from Japan's second largest city, Yokohama. He has been dispatched to Bangkok as an expert in climate change strategy. Yokohama is one of the local governments that have been actively working on climate change issues. The city has a close relationship with the Bangkok Metropolitan Administration (BMA) and has been supporting various training courses for BMA staff since 2009. The City of Yokohama also cooperated with the BMA to in formulating the Bangkok Master Plan on Climate Change 2013–2023. Kuromizu, together with the newly established Climate Change Strategy Sub-Division of the BMA, leads projects aimed at enhancing capabilities to implement the Master Plan, and promotes collaboration with stakeholders such as the Thai government and the private sector.

### Reducing GHG Emissions with a Focus on Transport

The Master Plan aims to reduce GHG emissions by 13.57% from BAU\*<sup>2</sup> levels in four key sectors by 2020: transport, energy, solid waste/wastewater management, and urban greening.

The mid-term review completed in May this year showed steady improvement. GHG emissions in 2016 were 2.55% less than those recorded in 2013 and 8.71% lower than BAU levels in 2016. Kuromizu notes that the achievements in the field of transport have been particularly impressive.

Urban railway systems have been developed in phases over the past 20 years, and there are plans to expand the network in the future. Currently there are five railway lines in operation, including the



Metropolitan Rapid Transit (MRT) Blue and Purple lines, which were built with the support of JICA.

Kuromizu says, "In addition to developing railways, it is also important to encourage people to shift from driving cars to riding trains. City planning to enhance the use of rail transport, such as skywalks (elevated walkways) between stations and the surrounding buildings, are becoming widespread in Bangkok."

Another project\*<sup>3</sup> aims to mitigate traffic congestion by optimizing the timing of the traffic lights based on traffic data gathered from a number of zones in Bangkok.

In the field of energy efficiency, efforts have been made to reduce GHG emissions by cutting down energy consumption in buildings.

The BMA switched to LED lighting and a more energy-efficient air conditioning system to make its buildings more eco-friendly. Such energy-saving measures will be expanded to other public buildings, such as ward offices, schools and hospitals.

Termsiri Chongpoonphol, Director of the Air

Quality and Noise Management Division of the Department of Environment of BMA, gave us a glimpse of the diverse range of activities in which they are engaged. "The BMA is currently working on 46 priority projects based on the Master Plan. In the field of waste management, we have a project that aims to convert heat generated from waste incinerators into power. We also have a project that will plant 100,000 trees throughout Bangkok over a two-year period starting in May 2019."

### Big Data Identifies a Correlation between Floods and Traffic Jams

Effective climate change countermeasures are not just limited to reducing GHG emissions. It is also important to create a city that is resilient to extreme weather, such as heavy rain and flooding. Kasetsart University, the University of Tokyo, and other universities and research institutions in Thailand and Japan have come together for joint projects\*<sup>4</sup> consisting of a number of research activities aimed at minimizing

damage caused by natural disasters.

One of the project teams, led by Shinichiro Nakamura, an Associate Professor at Nagoya University, is researching the effect of heavy rain and flooding on urban traffic. He is examining the correlation of these phenomena by combining big datasets such as rainfall data in 60 different locations within Bangkok and GPS data collected from car navigation systems.

Japan has long shared advanced technology and know-how with Bangkok. Kuromizu stresses that it is

also important to raise awareness among the general public. "If we allow climate change to progress, our children will be greatly affected in the future. That's why it is important to inform them about environmental issues right now."

\*1: GHGs = Greenhouse gases

\*2: BAU = Business as usual. The state in which countermeasures for climate change are not adopted

\*3: Project for Improving Traffic Congestion in Bangkok through the Establishment of the Model Area Traffic Control (ATC) System

\*4: Project for Advancing Co-Design of Integrated Strategies with Adaptation to Climate Change in Thailand



Interview

## Encouraging Motivation for Climate Actions

**Panitnart Tanaapinan**  
Deputy Director General, Department of Environment, BMA

"Attending training in Japan and collaborating with JICA experts have increased everyone's motivation, allowing us to expand our knowledge and skills. JICA's important role is apparent in the fact that the Climate Change Strategy Sub-Division was established within the Department of Environment specifically to promote implementation of the Master Plan, and to strengthen BMA collaboration with concerned departments and bodies."

## A clean and energy-efficient city

MITIGATION



**Manaswee Arayasiri**  
Sanitary Engineer, Department of Public Works, BMA

"By replacing the outdated centralized air conditioning system with a modern one, our power consumption has dropped by 30%. We are now in a position to put to better use the different kinds of technology and know-how we learned from JICA and Yokohama City."

Mr. Arayasiri, in charge of the renovations, is shown with the building's new highly-efficient centralized air conditioning system.



Urban greening, such as development of parks in the city center, is being promoted in Bangkok to make people's life comfortable and suppress the urban heat island effect.

**Sermsook Noppun**  
Head, Climate Change Strategy Sub-Division, BMA

"I attended a training course on climate change in Yokohama last year. I noted that many people use bicycles for transport, which helps reduce GHGs. The traffic signal system was also excellent and gave me some ideas to adopt in our own projects."



Sermsook Noppun (left), Head of the Climate Change Strategy Sub-Division, and Termsiri Chongpoonphol, Director of the Air Quality and Noise Management Division.

## Making the city disaster resilient

ADAPTATION



Shinichiro Nakamura, an Associate Professor at the Graduate School of Engineering of Nagoya University.



River taxi travel through Bangkok's waterways. Just like the railways, the boats are being further developed as a means of public transport.



**Chaiporn Jaikaeo**  
Assistant Professor, Kasetsart University

Leads a team developing a system for analyzing hydrological and meteorological data. "Images taken by the Japan Aerospace Exploration Agency (JAXA) using the weather satellite Himawari are sent to this server."

The Climate Change Data Center was established in Bangkok's Kasetsart University with the support of JICA. It collects a wide variety of real-time information throughout Thailand.



# Stop the Land Subsidence!

Land subsidence in Jakarta is predicted to aggravate widespread damage whenever a flood or storm surge occurs. JICA is applying Japan's experience in dealing with land subsidence in Tokyo to help Jakarta city bring the subsidence under control.



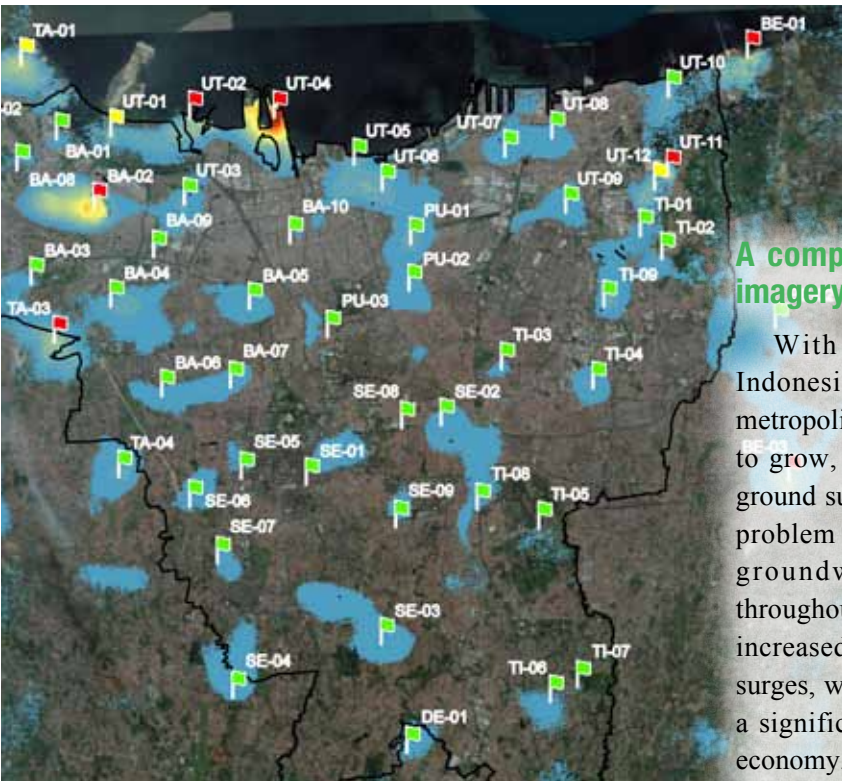
Some of the land adjacent to the sea is below sea level.

**Land subsidence is a problem throughout Jakarta**

Storm surges cause the sea to overflow the seawall and inundate surrounding houses. The photo is of Pluit, an administrative village in North Jakarta.



Source: National Capital Integrated Coastal Development (NCICD)



©JAXA/Project for Promoting Countermeasures against Land Subsidence in Jakarta

**Identifying the areas in which the land was subsiding**

A map of Jakarta created by analyzing images captured by ALOS and ALOS-2 (Advanced Land Observing Satellites). The green flags indicate areas where the land subsided 50 mm or more between 2007 and 2018, and the red and yellow flags indicate more severe subsidence.

## A comprehensive approach using satellite imagery

With over 10 million inhabitants, Jakarta, Indonesia's capital, is known as one of the great metropolises of Asia. While its population continues to grow, the city's northern districts have seen the ground subside as much as four meters since 1970, a problem caused in part by over-abstraction of the groundwater. Land subsidence is a problem throughout Jakarta, including in the city center. The increased risk of damage from flooding and storm surges, with a resulting halt in the flow of goods, has a significant effect on the city's population and its economy. It is feared that further climate change will induce heavy rains and storm surges that will inundate



**A subsidence monitoring station**

Three wells of different depth are installed at each location. The wells have two concentric pipes, and the inner pipe sinks when the ground subsides. The amount of soil shrinkage at various levels can be quantified by measuring the difference in amounts by which the pipes in the three wells subside.



the city and surrounding districts, causing widespread damage.

"Land subsidence due to over-abstraction of the ground water was actually happening in Tokyo until the 1970s. We're utilizing this experience in the current project," says Takeshi Watanabe of Yachiyo Engineering, who leads JICA's project to combat the subsidence.

The first step was to identify the areas in which the land was subsiding. This was done by analyzing data captured by the Japan Aerospace Exploration Agency's (JAXA) Advanced Land Observing Satellites (ALOS and ALOS-2). Engineers then installed double-pipe observation wells in those areas, and set up systems to measure and record land subsidence and changes in groundwater level.

The project is currently at the stage where it plans to evaluate areas for flood and storm surge risk, create flood maps, and prepare proposals to stop the subsidence and protect the city from inundation. "All of this will contribute to climate change adaptation," says Watanabe.

A comprehensive approach is required: for example, legislation that regulates abstraction of the ground water needs to be passed, and alternative sources of water need to be secured. In order to achieve this, everyone concerned—the administration,

businesses, industries, and the general population—needs to understand the present and future risks and accept the cost of dealing with them.

In addition to capacity development and support to develop a comprehensive action plan that takes climate change into consideration, the project will include programs aimed at raising public awareness.

## Takeshi Watanabe Yachiyo Engineering Co., Ltd.

Takeshi Watanabe has worked with JICA for nearly 30 years in Indonesia and around the world. Currently he is the lead consultant supervising the present project. "It may take decades to stop the subsidence. We plan to help prepare an action plan tailored to Jakarta that incorporates Tokyo's experience so that the people of Indonesia can independently proceed with measures to stop the subsidence." Photo shows Watanabe (left) standing with Indonesian Minister of Public Works & Housing Basuki Hadimuljono.





# Harnessing the Power of the Westerlies

Higher levels of economic growth in Mongolia have led to a greater demand for power supply. As the country is mostly reliant on coal for energy, serious air pollution has also become a pressing issue. JICA helped address these problems through its support for the Tsetsii Wind Farm, the second wind power generation project in Mongolia.



Top: The substation of the Tsetsii Wind Farm. Pictured is the facility for voltage regulation.  
Bottom: Each wind turbine can produce 2 megawatts.



Top: 95% of the 500 personnel involved in the construction of the wind farm were Mongolians. This partnership between the two countries to build high-quality infrastructure also contributed to the local communities. Left: The completion ceremony was held in October 2017.

## Wind Power Generation Project with Environmental and Economic Benefits

In recent years, Mongolia has experienced dramatic economic growth. Even though the rate of domestic power generation is increasing, it has proved inadequate to keep up with demand for power supply, and the current shortfall in supply is mostly met by purchasing electricity from Russia.

Approximately 90% of Mongolia's total power is generated by coal-fired power plants. However, the burning of raw coal in thermal power plants using small boilers and for winter heating facilities, combined with poor combustion efficiency from the aging thermal power plants, has led to an increase in air pollutants and greenhouse gas emissions.

Amidst calls to promote the use of renewable energy to deal with such problems, two companies, Newcom LLC, the pioneer company in constructing and operating wind power plants in Mongolia, and SB Energy Corp., a Japanese renewable energy company,

have jointly created Clean Energy Asia LLC. Clean Energy Asia finished the construction of the Tsetsii Wind Farm, the country's second wind farm, three months ahead of schedule. Operating since October 2017, the wind farm is located in the Gobi Desert, an ideal site for generating wind power because westerlies prevail year round. "Not only does it reduce greenhouse gas emissions, it also brings economic benefits because the marginal operating costs required for aging thermal power plants are by far higher than those required to operate renewable energy plants," says Clean Energy Asia's Enkhtuvshin Turbold\*1.

## First Overseas Investment in the Field of Natural Energy

With 25 giant wind turbines standing at 130 meters, the Tsetsii Wind Farm can generate 50 megawatts, enough to cover approximately 5% of Mongolia's energy requirements. It is financially

supported by JICA together with the European Bank for Reconstruction and Development (EBRD). JICA is providing support through its Private-Sector Investment Finance\*2 in the field of natural energy. Mr. Turbold elaborates, "The Mongolian economy basically came to a standstill in 2016. Both foreign investors and international development financial institutions abandoned the Mongolian market, and some put their investments on hold. It is thanks to JICA's financial support that this project materialized."

"There are plans to develop a multinational power grid primarily generated by renewable energy that will supply power to East Asian countries. With its prevailing westerlies and the abundant solar energy, the southern Gobi region will become an important producer of energy. We are working to make the Tsetsii Wind Farm the main supplier since its capacity can be expanded to 250 megawatts," says Mr. Turbold on the future of Asia and Mongolia.

### Enkhtuvshin Turbold Finance Manager, Clean Energy Asia LLC

Completed his master's degree at the Graduate School of Economics, University of Tokyo. Joined Clean Energy Asia LLC after working at the Trade & Development Bank of Mongolia.



\*1: The Tsetsii Wind Farm project has the potential to reduce Mongolia's annual CO<sub>2</sub> emissions by 176,575 tons; equivalent to approximately 1% of Mongolia's total CO<sub>2</sub> emissions.

\*2: This scheme provides support in the form of loans or financing for private companies carrying out projects in fields such as infrastructure development, elimination of poverty, and climate actions, which have high development potential. It aims to enhance the impacts of development, while reducing business risk through technical cooperation and collaboration with private and international financial institutions.



# A Sampling of JICA's Climate Actions

There are many different approaches to fighting climate change. These projects are aimed at controlling or preparing for climate change.



**India**

## Metro System Contributing to CO<sub>2</sub> Emission Reduction

**MITIGATION**

### Metro Development in India

As India accelerates economic growth, the number of car owners has been increasing, resulting in air pollution and traffic congestion that cause serious problems in the major cities. The Delhi Metro Project, which was developed under Japanese ODA loan, contributes to reducing CO<sub>2</sub> emissions and air pollution. Mr. M. P. Singh, Chief Development Specialist of the JICA India Office explains the development impact of the Project: "With the introduction of the metro system, the daily volume of vehicles on the road in 2018 decreased by about 700,000. When converted to CO<sub>2</sub> emissions, there is a reduction of approximately 990,000 tons. Owing to the use of an energy-efficient braking system developed by Mitsubishi Electric Corporation, the Project earned Japan its first Certified Emission Reduction Credits for the railway sector under the UN's Clean Development Mechanism\* (CDM)."

As air pollution is a big concern, not only in Delhi but also in all major cities throughout India, the government of India intends develop more metro systems. "The Delhi Metro is highly regarded in India as a "Shining Example" that is representative of the cooperation between India and Japan," continues Mr. Singh. "Other Metro projects modeled after this project are already underway in and outside India, including Bangladesh."

\*The CDM is a system established under the Kyoto Protocol whereby Certified Emission Reduction Credits are issued to developed countries that help reduce greenhouse gas emissions through projects carried out in developing countries.



After 25 years since its founding, the Delhi Metro now stretches for 373 km, a distance greater than that of the Tokyo Metro.



We aimed to cover all electricity needs by using solar power, making our railway project very earth-friendly!



**M. P. Singh**  
Chief Development Specialist,  
JICA India Office

In 2017, the number of people using the Delhi Metro reached 1.8 billion people, making it the seventh most used subway in the world.



**Costa Rica**

## Developing Clean Energy

**MITIGATION**

### Geothermal power generation key to becoming a carbon-neutral nation

Costa Rica, a Central American country, relies on hydropower generation for most of its power supply. However, in the dry season the amount of hydro power generation decreases making it necessary to generate power with imported fossil fuels to cover the shortage. Under these circumstances, Costa Rica has been developing geothermal power generation as a means to achieve stable power supply at a lower cost. Japan has been providing assistance in constructing a geothermal power station, and presently work is underway in Las Pailas, Guanacaste.

Chika Takahatake, JICA Panama Office, says, "When Las Pailas 2 is completed, it is expected to help reduce the annual greenhouse gas emissions by 14,000 tons compared with those from oil-fired thermal power generation." The great value of this project lies in the fact that the conservation of the surrounding environment and mitigation of

climate change are both addressed at the same time.

"The steam pipeline and the power station building are designed and installed in consideration of the natural habitats of animals and plants, and also the surrounding landscape," remarks Takahatake. "We also implemented a technical cooperation program for evaluating the impact of the project on ecosystems accurately, collaborating and strengthening our ties with local NGOs and the government."



The site is filled with steam. Costa Rica is a volcanic country with great potential for geothermal power development. Although the estimated power generation potential is approximately 865 MW, the installed capacity has remained around 217 MW.



**Chika Takahatake**  
Senior Representative,  
JICA Panama Office



Drilling site for Las Pailas 2. Geothermal power uses hot water and steam taken from deep underground.

This project is an excellent example of coexisting with the environment.



**Republic of South Africa**

## Protecting People from Infectious Disease

**ADAPTATION**

### Using science to control the increased risk of infectious diseases due to climate change

Climate change is exacerbating the threat of infectious disease in developing countries. For example, extreme cases of El Niño and La Niña are accompanied by flooding. This accelerates the breeding rate of mosquitoes, which are a known carrier of pathogens, resulting in the spread of diseases such as malaria. The deterioration of the quality of water supply due to flooding also leads to the spread of cholera.

This relationship between climate and infectious disease epidemics was recognized by Japan and the Republic of South Africa, which have launched a joint research effort aimed at predicting potential epidemics and providing early warnings. Using artificial intelligence and other methods, the research team analyzes the weather forecast for Southern Africa acquired from one of the world's most advanced climate models, which was developed by Japan. This data is then combined with local environmental fac-

tors to predict infectious disease epidemics.

Speaking of the importance of this project, Noboru Minagawa, Project Leader for JICA and Professor at Nagasaki University, says, "If we can predict epidemics, we can prepare preventive measures, drugs, and diagnosis kits at an early stage. This will reduce the number of cases of infection."

It is expected that the results of this project can be further developed and applied in other parts of the world to control climate-related infectious disease.



Team members collecting malaria-carrying mosquito larvae for use in clarifying the correlation between mosquitoes and climate as part of an ecological survey.



**Noboru Minagawa**  
Professor, Institute of Tropical  
Medicine, Nagasaki University



The predicted number of malaria cases shown on a tablet. Artificial Intelligence predicts potential epidemic areas using the data collected.

For the first time in 20 years, we succeeded in predicting an outbreak of malaria in South Africa!





## President Kitaoka visits Democratic Republic of the Congo and Republic of Rwanda



Visit to the National Institute of Professional Preparation.

JICA President Shinichi Kitaoka visited the Democratic Republic of the Congo and the Republic of Rwanda between the 13th and 22nd of July, where he met government officials and conducted site visits to ODA projects and other ini-

tiatives in both countries. As his first stop, Dr. Kitaoka held a meeting with President Felix Tshisekedi of the Democratic Republic of the Congo, and expressed his intention to further strengthen the 40 years of cooperation between the two countries. While in Kinshasa, Dr. Kitaoka made his way to sites of JICA's cooperation with the Democratic Republic of the Congo, including the implementation of job training programs, and the countermeasures being taken to fight infectious diseases such as Ebola hemorrhagic fever. Dr. Kitaoka traveled 350 kilometers outside the capital to visit the Matadi Bridge, the only bridge spanning the Congo River, which was constructed 36 years ago by ODA loan from Japan. Here he noted that the dutiful maintenance shown to this "bridge of friendship" by local engineers serves as a symbol of continuing cooperation between the two countries.

Dr. Kitaoka next visited Rwanda, fast

becoming known as the miracle of Africa for the rapid reconstruction and marvelous development achieved after the genocide. At Kigali, the capital of Rwanda, he met Prime Minister Édouard Ngirente. The two men confirmed that the countries would further enrich the relationship through development cooperation. Rwanda is promoting initiatives to utilize ICT and innovation for her development, and Dr. Kitaoka was able to observe initiatives underway at open technology hubs in the capital Kigali, where JICA has contributed to their establishment and operation. Next he visited an one stop border post to observe how JICA's cooperation has enhanced smoother logistics and trade between Rwanda and Tanzania. Finally, Dr. Kitaoka met with Japanese entrepreneurs operating their business in Rwanda, enjoying an exchange of ideas, and sharing high expectations for the country with all parties.



## JICA Signs First Grant Agreement with UNIDO for Pakistan



The signing ceremony was held in Islamabad.

On August 5, JICA signed a grant agreement with the United Nations Industrial Development Organization (UNIDO) in Islamabad to provide grant aid up to 560 million yen for the Project for Ag-

ri-food and Agro-industry Development Assistance in Pakistan. This is the first time JICA has attempted a collaboration with UNIDO via a grant agreement. This 48-month project aims to improve the livelihood of farmers and workers in the agricultural industry in the Khyber Pakhtunkhwa and the Balochistan provincial areas by spreading technology for the cultivation and processing of agricultural products. The agreement provides for the introduction of the equipment and capital needed to process, package and store these products, and also covers technical support that will be focused on developing sales channels.

The agricultural sector in Pakistan is a key industry, producing around 20% of GDP and supporting 43% of the employed population. Consequently, the Pakistan government has made agriculture a priority issue, identifying it as key

to increasing employment, reducing poverty, and promoting economic development for the nation. The target location for this project is the Khyber Pakhtunkhwa and the Balochistan provincial areas, where 60% of the population is involved in agriculture or agriculture-related work. However, these two provinces have traditionally used self-sufficient methods for the cultivation of crops, and with large variations in rainfall, cropping is notoriously unstable. Although strategies such as multi-cropping and mixed agriculture are widespread, many farmers and related industrial workers in these areas continue to face economic challenges. The prospects for effective cooperation are strong, as UNIDO has rich experience building agricultural value chains in Pakistan, and can activate community networks in order to address the relevant issues.

## A Career Devoted to Pacific Island Development

For 32 years now, Nila Prasad has been a fixture at the JICA Fiji office. First recruited to work for the Japan Overseas Cooperation Volunteer (JOCV) Program she has been continuously serving Fiji and the Pacific Island community in a wide variety of roles. Prasad fondly recalls her work in the Volunteer Section, particularly organizing the Art Exhibition project for primary schools, a first in Fiji and an event which had a profound impact on the standard of art in the country's primary schools. Another career highlight was a survey conducted in the Republic of Kiribati for the deployment of JOCVs, followed by the establishment of the JICA/JOCV Kiribati Office in 2008.

Fiji and the small island nations of the Pacific are highly vulnerable to climate change. The government of Fiji sees climate change as one of the biggest threats to sustainable development and shows strong leadership in mitigating the associated risks as more frequent and extreme weather events dramatically affect the country.

In 2010, Prasad moved to the Operations Section and has worked in almost all sectors including climate change. Over the years, she has made valuable contributions to JICA's efforts to mitigate the negative effects of climate change by connecting Japanese experience to the Pacific Islands through JICA's

cooperation. Currently, Prasad is honored to be engaged in many projects which contribute to Fiji's filling of human resource gaps and strengthening of its system related to climate change, especially in the field of disaster risk reduction.

Reflecting on her career, she narrates, "I have seen the JICA Fiji Office grow from a very humble beginning with only five staff members to what it is now. I have worked with so many Japanese staff and have met so many volunteers, including JICA Experts and Missions. I have also established a great network with government officials, donor partners, and civil society." Prasad is full of pride and admiration for the degree to which JICA has been able to contribute to the development of Fiji and the Pacific islands. She holds high hopes for JICA's ability to make an even greater contribution to the region, helping it overcome the challenges ahead.



Prasad with JICA co-workers at the official launch of upgraded radio transmitters and facilities that will vastly improve media coverage throughout Fiji.



Prasad with Fiji Meteorological Service officials at the 5th meeting of the Pacific Meteorological Council (PMC-5) held in Samoa in August 2019.

**Nila Prasad**  
Program Officer,  
JICA Fiji Office





# Cooperation is the Key to Climate Actions in the Pacific

Kosi Latu

Director General, Secretariat of the Pacific Regional Environment Programme

The Pacific islands are home to the largest ocean, with a land area of 553,000 km<sup>2</sup>, and an exclusive economic zone and territorial sea area of 30 million km<sup>2</sup>, equivalent to 10 percent of the World's ocean. It is because of this unique environment that Pacific Island leaders established by treaty the Secretariat of the Pacific Regional Environment Programme (SPREP) in 1993. SPREP was created to help conserve and protect the environment for present and future generations. It is based in Samoa and consists of 26 member governments, including 21 Pacific island countries and territories of the region. With strategic priorities in island and ocean ecosystems, environmental monitoring and governance, and waste management and pollution control, climate change is the highest priority of SPREP, as an accredited entity of the Green Climate Fund and Adaptation Fund.

Pacific Island leaders have led the world in dealing with climate change, which has been identified as the biggest threat facing the region, with the potential to affect the survival and sustainable development of Pacific island communities and their unique environments. In recognition of Japan's long-standing relationship with the Pacific and the global issue of climate change, at the Seventh Pacific Islands Leaders Meeting (PALM 7) held in Japan, Prime Minister Shinzo Abe committed to providing comprehensive assistance to SPREP for the development of the Pacific Climate Change Centre (PCCC) and capacity building to tackle climate change.

Development of the PCCC was made possible with the generous support of bilateral grant aid of Japan to Samoa. It will provide practical information and capacity-building sup-



port to address the climate change adaptation and mitigation priorities of the Pacific. It will serve as a knowledge broker and build relationships between sources and users of climate change knowledge to enable decision-makers to receive timely, reliable, and accessible information; enable applied research and exchange; promote capacity building through training and learning; and support development of innovative products and services to increase resilience.

SPREP has a longstanding relationship with JICA in the field of solid waste management, including dispatching of personnel and two successful technical cooperation projects. Based on this strong

foundation, JICA's Project for Capacity Building on Climate Resilience in the Pacific will be implemented through the PCCC with 12 tailor-made courses on climate adaptation, finance and mitigation for the Pacific. The partnership of Samoa and Japan for establishing the PCCC demonstrates a holistic commitment to a "Resilient Pacific." SPREP as a regional asset, is proud to host and support the PCCC at its own campus. We look forward to future opportunities of collaboration and partnership with Japan and appreciate the generosity extended by the people of Japan to the people of the Pacific to help tackle the challenges of climate change.

#### Profile:

Kosi Latu has served as the Director General of the Secretariat of the Pacific Regional Environment Programme since 2016, prior to which he was Deputy Director General. Previously, he worked for the Pacific Islands Forum Secretariat and Commonwealth Secretariat, holding a number of senior positions including Special Legal Adviser. He is a graduate of the University of Canterbury, and his expertise includes international environmental law, law of the sea, and financial compliance.