# The Pacific

**Cooperation Focused on Dealing with Small Size, Isolation and Remoteness Issues** 

**Key Aid Strategies** 

## **Providing Effective Cooperation by Applying Japanese Knowledge and Experience**

The Pacific island countries have a number of common characteristics. They have small-scale domestic markets due to small land areas and populations (small size), are comprised of many islands separated by vast expanses of ocean (isolation) and have limited access to international markets (remoteness). In addition, this region is vulnerable to natural disasters and the impacts of climate change as well as environmental degradation associated with modernization. Furthermore, the Pacific island countries

have very little resilience to economic crises such as sharp increases in the price of fuel or food.

JICA is providing a wide range of cooperation to overcome each country's priority issues. JICA is also extending region-wide cooperation to address common concerns throughout the region, such as disaster risk management, climate change measures and environmental protection.

JICA provides assistance to the following Pacific island countries: Fiji, Papua New Guinea, the Solomon Islands, Vanuatu (in the Melanesian region), Samoa, Tonga, Tuvalu, the Cook Islands, Niue (in the Polynesian region), Kiribati, the Marshall Islands, Micronesia, Palau, and Nauru (in the Micronesian region). These countries with diverse languages also have their own distinctive cultures and customs.

The Pacific island countries used to live a traditional selfsufficient lifestyle. However, the influx of modern economics and culture made their economic structure more import-dependent; consequently, this condition resulted in creating chronic trade deficit in these countries. They have also faced natural environmental issues, including ecosystem degradation, due to urbanization and environmental pollution. Furthermore, these small islands hardly receive the benefit of necessary social services such as education and health care and transportation infrastructure connecting islands and countries is insufficient. These problems have made it difficult for these countries to achieve socioeconomic development and self-reliance.

JICA is providing region-wide cooperation to these island states to address common issues. In this case, JICA's approach to cooperation involves dispatching experts to key countries to create development models that suit common regional needs. These models are then extended to neighboring countries through such schemes as third country training programs. JICA is also providing cooperation that applies Japanese knowledge and

### JICA Programs in the Pacific (Fiscal 2014)

Total value of JICA programs **The Pacific** Papua New Guinea 51.2% 4.734 Total: 9,242 12.2% Solomon Islands 1.125 Fiji 697 7.5% Marshall Islands 6.0% Kiribati 552 520 5.6% Samoa 464 Palau 3.4% Tonga 316 Micronesia 277 3.0% Palau 249 2.7% Kiribati Marshall Islands 179 1.9% Nauru 89 1.0% Papua New Guinea Cook Islands 16 0.2% Nauru 13 0.1% Niue 0.1% Tuvalu Solomon Islands Samoa The figures show the total value of JICA programs in each country including Technical Niue Cooperation (Training Participants, Experts, Study Teams, Provision of Equipment, Cook Islands JOCV and Other volunteers, and Other costs), Loan Aid (Disbursements), and Grant Aid (Newly concluded G/A agreements) in fiscal 2014. Note: Figures exclude JICA's cooperation for multiple countries and/or multiple regions and international organizations Note: The regional total includes JICA's costs for dispatching Study Teams to

experience, such as Okinawa's experience in overcoming issues unique to islands.

# **Priority Issues and Activities**

#### Environmental Management

Waste management is a problem common to the small islands of the Pacific region. Since 2011, JICA, in cooperation with the Secretariat of the Pacific Regional Environment Programme (SPREP), has provided assistance for developing sustainable waste management systems and human resources to 11 countries in the region. Cooperation is provided at the regional level and country level toward the implementation of the Pacific Regional Solid Waste Management Strategy 2010-2015, a common regional goal. By conducting these activities, JICA is assisting in a reduction of the environmental impact of human activity, such as solid waste disposal, and helping to establish a sound material-cycle society on these islands.

Focusing on the oceans around the islands, the people of the Pacific are highly dependent on coral reef ecosystems for a variety of things, such as fishery and tourism resources and disaster prevention. However, in recent years, the coastal ecosystems have been damaged by multiple factors, including overfishing, environmental pollution caused by coastal development and the impact of climate change. JICA and the Vanuatu Fisheries Department have carried out technical cooperation to achieve sustainable management of coastal resources. In the Micronesia region, JICA has utilized the Palau International Coral Reef Center as a project base for technical cooperation in order to improve the research capabilities of coral reef ecosystems and achieve sustainable management of its ecosystems. The project is being carried out jointly with the University of the Ryukyus and the Japan Science and Technology Agency (JST) [→ see the Case Study on page 31].

#### Disaster Risk Management and Climate Change

The Pacific island countries are highly vulnerable to natural disasters such as cyclones, floods, earthquakes, and tsunamis. Due to the large number of remote islands and limited communication and transportation, there is difficulty in spreading disaster warnings and also in delivering emergency aid to residents.

JICA has provided Technical Cooperation, Grant Aid and other cooperation to reinforce disaster prevention measures at the regional level. One specific area of cooperation involves enhancing weather observation and forecast and warning capabilities. JICA is conducting training programs at the Fiji Meteorological Service for experts from each of the countries in the region, as well as developing weather observation facilities in Samoa. In Tuvalu and the Solomon Islands, JICA provides assistance to set up radio broadcast networks for disaster information to give residents quick access to the information. In Fiji and the Solomon Islands, JICA has also engaged in technical cooperation that enables residents to evacuate properly according to information received. Overall, JICA is supplying a broad range of cooperation for disaster prevention in the region.

The Pacific island countries also are vulnerable to the impacts of climate change. In particular, Tuvalu and other low-lying atoll countries are vulnerable to sea level rise and other impacts associated with climate change. With the cooperation of the University of Tokyo and JST, JICA is providing Science and Technology Cooperation for eco-technological research to analyze the biogenic mechanism of production, transportation, and accumulation of sand by coral reefs and foraminifera.

#### Maritime Transportation

Maritime transportation is essential for the Pacific island countries to ferry people and cargo back and forth between the islands since the territories cover a vast area of ocean. From the perspective of providing access to education and medical services, maritime transportation is truly a lifeline for these countries. Up to now, JICA has provided Grant Aid for rehabilitation of harbors and provision of passenger and cargo vessels in Micronesia, Marshal Islands, Samoa, Tuvalu, Tonga and other countries in this region. In June 2012, JICA signed a loan agreement with Vanuatu as its first ODA Loan, which is to be used for the construction of an international cargo wharf in Port Vila.



Rendering of the Port Vila Lapetasi International Wharf

#### Stable Supply of Energy

The Pacific island countries, with limited natural energy resources, face the challenges of the reduction of reliance on an imported diesel oil supply that is easily affected by outside conditions such as steep rises in oil prices in international markets, and the introduction of stable energy sources that have low impact on the environment. In response to this, the Pacific island countries are promoting introduction of renewable energy, such as solar power generation and wind power generation. However, there is a concern about overreliance on renewable energy systems because they have wide output variations that may bring instability into electric power systems.

JICA assists in the stabilization of electric power systems and efficient usage of the existing electric sources such as diesel power generation while conducting studies on the power mix to optimize the effects of introducing renewable energy. In more precise terms, JICA supports installation of solar power systems as well as introduction of micro-grid control equipment and power

<sup>1</sup> A regional organization in the Pacific guiding environmental policies established in 1980. The organization consists of 21 Pacific island countries and Australia, France, New Zealand, the United Kingdom, and the United States.

system stabilization equipment, which enable stable usage of renewable energy and maintenance of a good balance between supply and demand of domestic electricity [ >> see the Case Study on page 104].

#### Social Services

Because many Pacific island countries lack the proper supply and storage systems to ensure safe immunization programs, they require the establishment of a "cold chain" to provide safe supplies of vaccines. Toward that goal, in 2004, JICA committed itself jointly with the World Health Organization (WHO) to cooperation for the Pacific Immunization Programme Strengthening (PIPS). Since then, JICA has been providing support for the dissemination of technology and human resources development related to the management of immunization projects and vaccines in the Pacific region. In response to the increasing disorders and deaths caused by non-communicable diseases (NCDs), such as diabetes and cardiovascular diseases, and the consequent structural transition of diseases from communicable to NCDs, JICA has started technical cooperation to establish measures against NCDs in 2015.

Limited access to education is also a serious issue for remote areas and islands. JICA is providing cooperation in the region to increase opportunities for and the quality of education through the use of television, radio and satellite communication networks, and other methods. Through Grant Aid and Technical Cooperation,



Installation of a micro-grid system under Grant Aid in Tonga

JICA is assisting with the establishment of an information and communication technology (ICT) center and the training of ICT staff at the University of the South Pacific (the main campus in Fiji), which was established by 12 countries in the Pacific region. Among other examples, in Papua New Guinea, where the primary education enrollment rate is low, JICA has constructed a national education media center and provided aid for the production of educational programs. Aid has also been given for delivering model school classes via television to elementary and junior high schools in other areas of the country.

Case Study

Project for Sustainable Management of Coral Reef and Island Ecosystems: Responding to the Threat of Climate Change

## **Understanding the Mechanism of Coral Reef and Island Ecosystems for Continuous Protection**

JICA extends assistance in improving Palau's capabilities to research and maintain its coral reef and island ecosystems through joint research on the ecosystems.

#### **Providing Policy Proposals for** the Preservation of Ecosystems

Palau is one of the countries with the highest diversity of marine life in the world. Palau positions the development of tourism, with a focus on its rich natural environment, including coral reefs, as a main pillar of its economic development. However, in addition to the recent conversion of natural forests into farmland,



Researchers of the Palau International Coral Reef Center monitoring coral reefs

excessive fishing, and land development, there are concerns about a negative influence on the environment from global climate change, including rising seawater temperatures and ocean acidification. The protection of coral reef ecosystems has become an important issue.

In the project that started in 2013, joint research was conducted by the University of the Ryukyus, which has a strong reputation in

research on coral reef and island ecosystems, and the Palau International Coral Reef Center (PICRC). Influences from climate change and influences from the land areas on coral ecosystems are evaluated from a viewpoint of natural science throughout Palau. At the same time, influences of the changes in ecosystems on the economy and the society of Palau are studied and analyzed from the viewpoint of social science.



A Japanese researcher investigating coral damage conditions

Currently, marine life is collected and coral communities are monitored at 40 points that include three core research areas. Through the joint research, research techniques are being transferred to young members of the PICRC, who will be responsible for maintenance of the coral reef and island ecosystems in future. Exhibitions, workshops, and others are also planned in the days ahead in order to promote understanding of the coral reef and island ecosystems by local people.

Results of these research projects are expected to be reflected in the establishment and implementation of overall measures and policies that aim to maintain the coral reef and island ecosystems in the future.