

South America

Implementing Effective Cooperation with Various Partners

Key Aid Strategies

Developing Economic Infrastructure, Addressing Global Issues and Inclusive Development

Composed of 10 countries* (Colombia, Ecuador, Chile, Bolivia, Peru, Venezuela, Argentina, Uruguay, Brazil, and Paraguay), South America, with a population of 400 million, has 1.7 million Japanese immigrants and their descendants (*Nikkei*) and a deep historical relationship with Japan. In recent years, South America has achieved robust economic growth, and many countries there have reached a certain income level, while the economy of this region is significantly influenced by the world economy and market trends, since most of these countries greatly rely on the production and export of primary commodities.

In addition, South America is one of the regions in the world facing considerable disparity. Behind such economic growth, the regional and domestic economic gaps have also triggered social unrest in the region.

While strengthening collaboration with development partners such as other international development institutions, private sector entities, universities, local governments, and *Nikkei*, JICA is extending its support in response to the development needs of countries within and beyond South America.

South America, gifted with abundant natural and mineral resources and fertile soil, is achieving steady economic growth spurred by the increases in worldwide demand for resources and foods. On the other hand, some countries with high potential have struggled with stagnant international competitiveness due to a delay in shifting from their conventional industrial structure that is dependent on primary commodities, resulting in sluggish economic growth. In order for these countries to break out of the “Middle-Income Trap” and achieve further economic growth, JICA is providing support for improving the lagging infrastructure development and creating an investment environment. Furthermore, JICA is assisting these countries

in enhancing their administrative capability as a foundation to facilitate private economic activities and ensure public security, as well as improving the urban environment, which has become increasingly severe along with the economic growth of today.

In consideration of the fact that there still are many people living in poverty behind the economic growth, JICA is also working on enhancing safety nets for people living in less-developed countries or those being left behind by development as well as stabilizing social order in the region.

Natural disasters that claim many lives and cause considerable

* JICA classifies Suriname and Guyana into the Central America and the Caribbean region.

JICA Programs in South America (Fiscal 2014)

South America
Total: **23,647**
(Unit: millions of yen)

	Total value of JICA programs (Unit: millions of yen)	Composition of disbursements
Brazil	12,741	53.9%
Peru	5,155	21.8%
Ecuador	1,889	8.0%
Paraguay	1,537	6.5%
Bolivia	1,037	4.4%
Colombia	464	2.0%
Argentina	368	1.6%
Chile	260	1.1%
Uruguay	113	0.5%
Venezuela	83	0.4%



The figures show the total value of JICA programs in each country including Technical Cooperation (Training Participants, Experts, Study Teams, Provision of Equipment, 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.

economic losses in an instant are a common issue among countries in South America. JICA is also contributing to addressing such global issues by, for example, carrying out disaster risk reduction activities and emergency disaster relief, providing technical cooperation and financial assistance for developing countries to make prompt responses to disasters, and conserving forests in the Amazon basin, etc., that have an immense impact on the global environment.

Working jointly with various development partners, including *Nikkei*, the private sector, and universities, JICA is engaged in coping with these issues, with a focus on the following three pillars of aid: development of economic infrastructure contributing to avoiding the “Middle-Income Trap,” establishment of a sustainable and resilient society through efforts on global issues, and promotion of inclusive development in light of human security. With development partners, such as Brazil, Chile, and Argentina, JICA is also supporting the triangular cooperation for countries within and beyond the region.

Priority Issues and Activities

● Development of Economic Infrastructure Contributing to Avoiding the “Middle-Income Trap”

Some countries in South America, although they successfully broke out of being low-income countries, have fallen into the “Middle-Income Trap,” since not only is their price competitiveness weaker than low-income countries, but also their technical skills are far from those of advanced nations, and this situation has led them into stagnant economic growth. For further economic development, JICA is undertaking support for development of economic infrastructure in these countries.

Energy development, such as electricity, is one of the important improvements of economic infrastructure. In Bolivia, aiming at responding to future increases in electricity demand and promoting economic development through stable power supply, JICA commenced support in July 2014 for the Laguna Colorada Geothermal Power Plant Construction Project (Phase 1 of First

Case Study

Bolivia: Laguna Colorada Geothermal Power Plant Construction Project (Phase 1 of First Stage)

The First Japanese ODA Loan in 22 Years for Construction of the First Geothermal Power Plant in South America

Aiming at responding to future electricity demand and stabilize Bolivia’s domestic power supply through geothermal power plant construction, JICA signed an ODA Loan agreement with the Government of Bolivia in July 2014.

Electricity Demand Growing Each Year

Potosi, a department located in the southern part of Bolivia, is one of the world’s largest producers of zinc, lead, and silver. Due to the active mining development, electricity demand is growing each year. However, since the southwest area of the Potosi department is situated at high altitude of 3,600 meters and above, not only is it difficult to implement large-scale thermal power generation, but hydroelectric power generation is also not suitable for the area. This situation has resulted in an absence of power-generating facilities that satisfy the electricity demand. Although power is currently supplied to the area via long-distance power transmission, this system, accompanied by

significant electricity loss, causes power outages when a transmission line accident occurs.

Mineral resources and related products are Bolivia’s core export goods, and a slowdown in mine development due to an unstable power supply can inflict a serious impact on the country’s economy. Thus, it is important to ensure a stable power supply. In this context, the Bolivian government is promoting diversification of power sources, and the introduction of renewable energy is regarded as one of the key pillars for that effort.

In such circumstances, it has been confirmed that the southwest area of Potosi department has a potential for geothermal resources development, and the Bolivian

government drew up the Laguna Colorada Geothermal Power Plant Construction Project to utilize these resources. In this project, aimed at establishing a 100-MW-scale power-generating facility, it was planned that a 50-MW power plant be constructed as the first stage. The support for this project was officially endorsed in the Japan–Bolivia Joint Statement signed in December 2010 by then Japanese Prime Minister Naoto Kan and Bolivian President Evo Morales, who was visiting Japan at the time.

In response to this move, JICA provided an ODA Loan for the Phase 1 of the first stage of this project. JICA will facilitate the development of renewable energy and help mitigate climate change under this project by easing the urgent electricity demand and stabilizing the power supply in Bolivia.

The World’s First Geothermal Development at High Altitude of More Than 5,000 Meters

Construction of the Laguna Colorada Geothermal Power Plant is the world’s first geothermal development at high altitude of more than 5,000 meters. The atmospheric pressure of the area is about half that of sea level. Therefore, customization is required for some equipment, and it is also essential to ensure the safety of workers. Prior to providing an ODA Loan, JICA has conducted technical cooperation since 2010 with regard to well testing, enlightenment activities, and capacity development for geothermal power generation, as well as smooth implementation of the project. Other technical cooperation, such as institutional reinforcement, will be also provided.



Conducting a well testing

Stage), an ODA Loan project, that is the world's first geothermal development project at high altitude above 5,000 meters. While Bolivia mainly relies on thermal power generation using natural gas, this project is expected to realize a stable power supply by utilizing renewable energy in the form of geothermal power [→ see the Case Study on page 49].

In Brazil, accelerating the development of deep-sea oil fields that have been successively discovered since 2005, there has been a rapid increase in demand for special ships used for oil-well drilling and transportation, resulting in a marked shortage in the number of shipyards and shipyard engineers. To deal with this situation, in October 2014, JICA started the Project on Promotion and Capacity Development of Professionals for the Ship-Building Industry and Offshore Development, a technical cooperation project that supports the training of 30,000 shipyard engineers in cooperation with Japanese companies investing in Brazilian shipbuilders.

Smooth logistics are also an important factor to facilitate economic development. In Paraguay, a landlocked nation, over 80% of roads in the country are still unpaved, although these roads play a crucial role in transportation of agricultural and livestock products, which are the prime industry of Paraguay. Rainy season often makes these roads impassable, posing an obstacle to social and economic activities. In June 2014, JICA signed an ODA Loan agreement for the Eastern Region Export Corridor Improvement Project to construct a road connecting agricultural and livestock production sites with shipping ports as a stable transportation pathway.

● **Development of a Sustainable and Resilient Society through Addressing Global Issues**

JICA has been addressing global issues in South America, home to the Amazonian forest, the world's largest tropical rain forest, and the Andes, with 6,000-meter-class mountains. Thanks to the relatively higher technical level of South America, joint research cooperation projects are also being carried out with Japanese research institutions and universities.

Argentina, adjacent to Antarctica, is geographically located right under the ozone hole, exposing people living there to the risk of skin cancer and cataracts. Seeing the ozone depletion causing such diseases as not only a problem for Argentina, but also for the world, JICA is currently working on the Project for Development of the Atmospheric Environmental Risk Management System in South America, a Science and Technology Research Partnership for Sustainable Development (SATREPS), to enhance the atmospheric observation network throughout Latin America and the Caribbean region .

In March 2015, JICA also launched the Disaster Risk Reduction Training Program for Latin America and the Caribbean, a technical cooperation project, jointly with the Chilean International Cooperation Agency (AGCI) to make Latin America and the Caribbean region more resilient to natural disasters. This project will provide advanced training programs for professionals at universities and practical training courses for governmental officers, by setting Chile as the regional hub for developing human resources engaged in disaster risk reduction [→ see the Case Study on page 51].

● **Promotion of Inclusive Development in Light of Human Security**

JICA is engaged in enhancing basic social services and promoting capacity development for communities to achieve inclusive development that will bring benefits to the socially vulnerable.

In Bolivia, aiming to improve maternal and child health conditions in Potosi, one of the poorest departments in the country, JICA has been supporting betterment of medical skills, introduction of community participation-type activities, and analysis of health care information under the Maternal and Child Health Network Improvement Project in Potosi, a technical cooperation project. JICA has long been providing assistance in the field of maternal and child health in Bolivia. The resident participation-type health promotion method introduced by JICA, called the FORSA method, was applied in October 2013 to Bolivia's national guidelines for disease prevention.

In Colombia, the long-running battle between the government and armed groups has left a lot of people disabled due to land mines and other weapons. For four years from 2008, JICA supported capacity development for professionals engaged in rehabilitation for disabled people through the Project on Strengthening the Integral Rehabilitation System for Persons with Disabilities, Especially for Victims of Landmines, a technical cooperation project. This project encouraged Colombian society to strongly recognize the necessity of the social reintegration and the promotion of active social participation of people with disabilities, resulting in developing legal structures and administrative bodies. In March 2015, JICA commenced the Project for Social Inclusion of Conflict Victims with Disabilities, a technical cooperation project, to assist in conducting surveys and also drawing up strategies for conflict victims with disabilities to participate in society.

● **Strengthening Cooperation with Various Development Partners**

Economic impact from governmental or international assistance decreases in countries with relatively high income levels, and private economic activities are expected to play a leading role in development. In South America, a lot of Japanese companies are expanding their business activities in the fields of mining, manufacturing etc., and the number is growing each year. Such private economic activities will not only facilitate economic development in these countries but also bolster relationships with Japan.

In November 2014, JICA concluded an investment agreement for the Energy Saving and Renewable Energy Project throughout Latin America and the Caribbean, the first Private-Sector Investment Finance for Latin America and the Caribbean region in two decades. Promotion of saving energy and the introduction of renewable energy have become important topics to address the increasing demand for electricity in Latin America and the Caribbean region. However, on the other hand, the private sector has little understanding of the potential effects of energy-saving products. In this situation, through investment in the private fund that has wide experience with energy-saving promotion and renewable energy development, JICA will support various kinds

of projects concerning this field led by Latin America and the Caribbean private sector by utilizing the expertise of the fund. This project is also expected to utilize Japanese companies' advanced technologies [→ see the Case Study on page 108].

Among cooperation with various international cooperation agencies, JICA has also been involved in the Geothermal Development Facility for Latin America (GDF) since its foundation, a new aid coordination framework for promotion of geothermal development in Latin America and the Caribbean region.

Furthermore, JICA sent the Partnership Promotion Survey Team to Brazil and Peru in 2014. The team's mission was

exploring beneficial opportunities for *Nikkei* communities to utilize Japanese companies' technologies and products, as well as promoting partnerships among Japanese companies, *Nikkei* communities, and JICA. This survey team, composed of 15 Japanese companies and organizations, shared their opinions with the governments, local companies, and *Nikkei* organizations in Brazil and Peru. Thanks to this effort, there are an increasing number of Japanese companies that have started utilizing the JICA private-sector partnership scheme and also considering specific business plans with *Nikkei* communities.

Case Study Chile: Disaster Risk Reduction Training Program for Latin America and the Caribbean

Japan-Chile Cooperation for Promoting Mainstreaming of Disaster Risk Reduction in Latin America and the Caribbean Region

JICA is working on developing human resources and strengthening networks so as to enhance disaster risk reduction measures in Latin America and the Caribbean region based on the experiences of Japan and Chile.

A Disaster-Prone Country

In Latin America and the Caribbean region, there are a lot of countries that face various natural disasters, such as earthquakes and tsunamis. Furthermore, due to recent rapid growth in urbanization in these countries, economic urban areas with a high population have become vulnerable to disasters.

Among these nations, Chile has recently suffered from frequent large-scale disasters, including the earthquake off the coast of Chile in 2010, generating a tsunami that reached Japan, and the volcanic eruption in 2015 that affected Chile and its neighboring countries.

Through such disaster experiences, the Chilean government, regarding disaster risk reduction as one of the key national policies, has strengthened its measures with a lot of aid from Japan, which has also experienced many natural disasters similar to Chile.

As natural disasters cause damage beyond national borders, it is a common issue among Latin America and the Caribbean nations. Based on lessons learned from past disaster experience, Chile was attempting to share information actively within the region in order to strengthen the disaster risk reduction

measures of Latin America and the Caribbean region. However, this effort was not powerful enough to develop effective human resources that can enhance disaster risk reduction measures for their countries.

In this context, the Chilean International Cooperation Agency (AGCI) concluded an agreement with JICA at the time of Prime Minister Abe's visit to Chile in July 2014. This agreement assures Chile of receiving assistance in human resources development for Latin America and the Caribbean region from JICA, which has accumulated knowledge of disaster risk reduction and a long-term cooperative relationship with Chile.

The Largest-Ever Cooperation Project for Chile to Establish a Hub for Development of Natural Disaster Professionals

In March 2015, along with the Third UN World Conference on Disaster Risk Reduction, JICA commenced the Disaster Risk Reduction Training Program for Latin America and the Caribbean to realize the foregoing agreement signed in 2014. This project is technical cooperation based in Chile that is designed to foster disaster risk reduction professionals of Latin America and the Caribbean. Among the technical cooperation for disaster risk reduction jointly conducted by both countries, this project is the largest ever in terms of scale and budget. Many institutions and experts from Chile and Japan will participate in this project.

This project leverages the advantages of technologies and knowledge of Chile and Japan and



The Calbuco volcano in Chile erupted in April 2015. Smoke from the eruption crossed national borders and reached Argentina.

also combines the international cooperation schemes and funding of both countries. By doing so, JICA will work on developing experts in various fields demanded by Latin America and the Caribbean countries, such as tsunami disaster prevention, countermeasures against forest fires, and emergency rescue activities. This project is also aiming to establish the framework for continuous development of human resources by providing capacity development opportunities for a total of 2,000 persons, including highly professional researchers and administrative officials responsible for disaster risk reduction.

In addition to this, the project will share efforts and knowledge among individual countries by holding international seminars and introducing Japan's disaster-prevention technologies. This effort is expected to form a network that strengthens the cooperative relationship, with a view to working with researchers, administrative officials, and private companies both within and beyond Latin America and the Caribbean region and from Japan, as well as with other regions, including Asia.



Implementing emergency rescue training