Infrastructure

Realizing Resilient and Sustainable Societies

*Of the 17 Sustainable Development Goals (SDGs), strongly associated goals are shown in color.

Urban and Regional Development

Cities in the developing world are faced with a range of challenges due to rapid urbanization and population growth, such as (1) inadequate urban infrastructure, (2) a deteriorating living environment, (3) growing vulnerability to natural disasters, and (4) widening economic disparities. Some developing countries are transforming into stable and mature urban communities as the process of urbanization and population growth are subsiding.

JICA addresses these challenges and problems by capitalizing on Japan's experience in overcoming powerful natural disasters and rapid urbanization that have no parallel in the world. Based on the strategies described below, JICA also seeks to achieve (1) urban policy and management for sustainable cities, (2) balanced national and regional development, and (3) an inclusive society.

1. For Asia, JICA's assistance focuses on urban infrastructure development for growing cities. For maturing cities in middle-income countries, JICA also addresses future urban challenges such as an aging population while suggesting the introduction of asset management.
2. For Africa, which is experiencing rapid urbanization while remaining underdeveloped, JICA advocates the corridor development approach,[1] by which JICA encourages African countries to concentrate their limited development resources on economic corridors so that their economies will get on a sustainable growth track.
3. For Latin America and the Caribbean, a region with a high percentage of urban population, JICA gives priority to disaster risk reduction (DRR) and the environment as this region is prone to natural hazards. Specifically, JICA focuses on nonphysical assistance, offering solutions to the problems facing the region.
4. For the Middle East, where urbanization is rather slow, JICA's assistance is oriented toward urban and community development in the context of peacebuilding and conflict prevention in view of the unstable security situation in the region.

To provide fundamental solutions to the problems cities and regions are facing in developing countries, JICA will analyze the actual situation and issues in the city or region in question and put forward strategies and approaches as a comprehensive program that suits that city or region. To this end, JICA will flexibly combine various available aid modalities.

It is important to meet different needs for urban and regional development in developing countries, ranging from

JICA has supported the formulation of an urban infrastructure development plan to solve urban problems in the City of Davao, the third most populous city in the Philippines, where population growth and traffic congestion are progressing. [Photo courtesy of IM4Davao]

the formulation of development plans to the operation and maintenance of urban facilities. The essential requirements to this end include establishment of necessary legal systems as well as capacity development for the implementing agencies and their staff responsible for urban and regional development. Accordingly, JICA will address these aspects as well.

Transportation

For the eradication of poverty and sustainable economic growth, it is indispensable to provide transportation service that facilitates the efficient movement of people and goods. Conversely, insufficient transport services often constitute a cause of poverty. Given that demand for transportation infrastructure remains to be fulfilled, it is necessary to deliver stable transportation services through closer partnership with the private sector or by making transportation infrastructure more durable and efficient. Sustainable utilization of infrastructure urgently requires improving and consolidating operation and maintenance arrangements as well as training government officials.

The main aim of JICA's cooperation for the transportation sector is to contribute to improvement in the living environment by vitalizing socioeconomic activities through attainment of swift, smooth, and safe transportation of people and goods.

In order to efficiently develop the transportation and road sector, building roads and bridges alone is not enough. It is also necessary to involve assistance designed to make wise use of developed infrastructure. For the development and effective use of infrastructure, JICA is engaged not only in

1. A strategic regional development approach designed to achieve sustainable and robust growth with a focus on a key trunk route (corridor) that serves a pivotal role in the economic activity of a country or a larger region. The idea is to create a virtuous cycle of investment promotion and market expansion by exploiting the industrial potential of that region along such a corridor and accordingly developing infrastructure to revitalize the region as a whole.

technical cooperation in infrastructure development but also in the development of related human resources. This involves training personnel responsible for operating and maintaining the developed infrastructure and building organizational structures for raising the awareness of infrastructure users.

In addition, under the policies of the Japanese government, JICA has embarked on a new type of assistance designed to support infrastructure development projects that are unprecedented in scale and intent on introducing state-of-the-art technology that meets the needs of developing countries. Furthermore, Japan is required to provide assistance related to infrastructure investment and development so as to contribute to the global efforts for the Sustainable Development Goals (SDGs) in accordance with the five principles set out in the G7 Ise-Shima Principles for Promoting Quality Infrastructure Investment document adopted in 2016.

In line with these principles, JICA will provide assistance at multiple levels to close the global infrastructure gap in transportation. This will involve "international transportation" that spans national borders, "national transportation" that ensures balanced development, "urban transportation" that supports sustainable urban development, and "rural transportation" that improves living standards of rural areas [➡ **see Case Studies below and on pages 21 and 25**].

Information and Communication Technology (ICT)

ICT is common infrastructure and an effective tool to solve social issues. Used in administrative, social, and economic fields, it is not an exaggeration to say that ICT has become vital to the functioning of modern-day society. ICT has a broad range of possibilities, and further utilization and application of ICT for various social issues is expected to facilitate more efficient and effective project implementation.

In many developing countries, the rapid spread of broadband Internet and mobile Internet services has primarily been seen in urban areas. However, when viewing such countries as a whole, the spread of ICT infrastructure and utilization of ICT have been slow in some respects. This leads to a digital divide with developed countries and an ICT gap between urban and rural areas within countries, resulting in a structure of widening economic disparity.

In recent years, developing countries have been facing the issue of how to address cyber security—a global challenge that is difficult to tackle only at the national level. Inadequate policies, institutional arrangements, and security measures render developing countries more vulnerable to cyber threats. They have difficulty building protection against such threats on their own.

To cope with these challenges, JICA's development strategy in the ICT sector comprises four components: improvement of ICT policy-making capacity, development of human resources to support ICT, development of ICT infrastructure, and promotion of use and application of ICT. This development strategy has been translated into specific measures, including dispatching advisers on digitalization of terrestrial television broadcasting, supporting the training of cybersecurity engineers, developing backbone communication networks, and delivering assistance with the use and application of ICT in sectors such as education, industrial promotion, and disaster risk reduction. In the cyber security sector, JICA works with the framework of cooperation between the Japanese government and ASEAN member states, namely the Japan-ASEAN Ministerial Policy Meeting on Cyber Security Cooperation, to assist these countries in building their cyber security capacities, thereby contributing to safe and secure cyberspace.

To further promote the use and application of ICT in relevant development sectors in developing countries, JICA is currently considering delivering industry-based solutions, business-enabling solutions, and incubating solutions.

ASEAN Region (Myanmar, Cambodia, and Indonesia): Supporting the Computerization of Port-Related Procedures

Toward More Efficient Logistics in the ASEAN Region

Myanmar: The application procedure before the introduction of port EDI entailed arduous documentation.

JICA supports the streamlining of logistics in the ASEAN region and the development of the ASEAN Single Window through the introduction and wider use of a port EDI (electronic data interchange) system.

Port arrival and departure procedures involve an arduous task for shipping companies and agents: they have to prepare similar applications for different administrative agencies and hand them in at the windows of these agencies. Port EDI refers to an information system that processes such procedures electronically. It allows shipping companies and agents to make applications to different administrative agencies simultaneously with one-time entry and transmission.

JICA supports the introduction and wider use of a port EDI in several ASEAN countries to simplify and streamline port administrative procedures.

In Myanmar, JICA's Grant project supported the development of a port EDI system, which was put into operation in April 2018. In Cambodia, JICA launched a survey with a view to introducing such a system. In Indonesia, JICA is engaged in technical cooperation aimed at expanding the use of the port EDI developed by the country. This involves the visualization of port performance with statistical data obtained through computerization.