

Economic Infrastructure Development

Structural and Non-Structural Support for Transportation/Communication Infrastructures and Regional Development that Drives Economic and Social Progress

The lack of basic infrastructure and frameworks for its operation and management hinders economic progress in many developing countries. Thus, JICA assists in infrastructure establishment and the development of the economy in these respective countries.

Although rapid urbanization can boost efficiency in economic activities and drive economic development, problems also arise such as deterioration in living environments, transportation and public security, and disparities between urban and rural areas. To promote effective regional development, it is important to take a cross-border perspective rather than a region-specific approach. This requires cooperation between regions and planning on a macro scale.

JICA also strives to boost social capacity in developing countries while working to ensure proper governance. To achieve this goal, it emphasizes the importance of creating suitable social systems and institutions; formulating regional development plans; establishing freight and transportation infrastructure; and establishing information and communication networks. JICA is also committed to advancing intra-regional cooperation while providing support depending on the needs of each country.

Urban and Regional Development

The Advantages and Disadvantages of Rapid Urbanization

Comprehensive Development Opens a Bright Future

Overview of Issue

The world's population has been estimated to increase to 6.9 billion people in 2010. In 1900, only 13% of the world's population lived in urban areas. Rapid urbanization prompted the figure to increase by over 50% in 2006. This growth tendency is particularly pronounced in developing countries, and about 80% of the world's urban population is expected to be centered in developing countries by 2030.

The effects of rapid urban development may drive economic expansion but can also give rise to poor living environments, traffic congestion, air and water pollution, increased garbage, lack of public security and the buildup of slums areas. It also widens the gap between urban and rural areas, which leads to several problems such as regional economic deterioration, outdated social infrastructures and deficient public services.

JICA believes that all issues cannot be resolved from an individual perspective and that a holistic approach to development in specific regions is crucial to reduce these negative effects due to rapid urbanization.

JICA Activities

JICA's efforts to sustain urban and regional development in developing countries include both urban master planning and comprehensive regional planning. Also, it offers Technical Assistance and cooperation to facilitate the execution of these plans, which contributes to economic growth and improved standards of living.

JICA has set five priority strategies to advance its agenda, analyze urban and regional problems, create a medium- to long-term vision, formulate development policies, draft plans by sector and propose action plans for implementation. This will thus ensure that a number of projects will be implemented effectively and efficiently.

1. Take an integrated and comprehensive approach on the diverse issues in the urban areas or region
2. Emphasize capacity development across all administrative agencies, social organizations and communities to advance urban and regional development
3. Enhance regional administrative systems in line with the country's state of affairs
4. Correct disparities between regions by promoting balanced regional development that recognizes the perspectives of its residents
5. Encourage balanced economic development that prevents the negative effects of urbanization

Case Study

Creation of a Master Plan for Urban Development

Syria: Project for City Planning and Development in Damascus Metropolitan Area

The Damascus metropolitan area has seen an influx of refugees and displaced persons from nearby countries as well as people from rural villages in recent years, which has led to a surge in unofficial residential areas and deepened problems in the urban environment.

Aiming to overcome these issues, JICA has been providing Technical Cooperation to revise the master plan of urban development.

Master Plan Unchanged for Over 40 Years

Syria is an important country for peace and security in the Middle East from geographical and geopolitical perspectives. In 2006, Syria shifted from a socialist planned economy and is currently in the midst of introducing market-based open-door policies.

At the same time, the population of Damascus has ballooned owing to an influx of refugees and displaced persons due to turmoil in Lebanon, Iraq and other countries in the region, and an increasing number of people have come to the city from rural villages looking for work. This has put excessive pressure on the water supply and led to other problems related to traffic congestion, groundwater contamination and garbage.

The creation of a master plan for urban

development is essential to resolve these problems and drive sustainable growth. Despite this need, Damascus has not changed its master plan since 1968. Upon a request from the Syrian government, JICA conducted The Study on Urban Planning for Sustainable Development of Damascus Metropolitan Area from 2006 to 2008. Based on a master plan formulated through the study, JICA has been working on a three-year project of urban planning and development since 2009 with the aim of enhancing the organizational capacity of implementing agencies on the Syrian side.

Increasing Community Participation and Administrative Capabilities

In promoting the project, JICA's approach was to devise an integrated master plan that includes detailed plans for specific areas based on a review of municipal responsibilities and in consideration of connections with Iraq and Turkey as well as a framework for ongoing economic development in Syria.

The project is being advanced in collaboration with Syria with the aim of improving administrative planning for Damascus and its suburban area through the establishment of various systems.

In line with this policy, a dedicated team from JICA is working together with local authorities to devise an urban plan, promote urban development and research various techniques for detailed regional plans.

A framework based on community participation is a new development in Syria, where top-down administrative procedures are commonplace as a remnant of the socialist era. A pilot project is being planned based on a detailed regional plan. South Qanawat, which was chosen as the model project area, has many historical structures. However, the buildings in the area are deteriorating and the roads are narrow, thereby requiring an improvement in the living environment. Another model project area is Ghouta Road in the Damascus suburbs, a farming district exposed to the pressures of urbanization, thus necessitating an improvement in the living environment.



Project staff visited Mishima City in Japan, and learned how to facilitate community participation in the environmental project. It was concluded that similar programs could be applied to Damascus and that local residents could be more involved in making the living environment better.

In both areas, JICA has taken a participatory approach in studies and workshops whereby local citizens work to resolve problems and devise ways to make improvements.



JICA conducts studies on unofficial residential areas.



Aging building in Qanawat



Local citizens discuss problems with urban planning administration and future plans. Recommendations by participants included planning events to deepen relations between residents, and other recommendations by people living in the historic district included conducting a study on urban transition.

Cooperative Efforts to Foster Human Resources

In the past, JICA's collaborative efforts in urban and regional development focused on plan formulation, but recent efforts include fostering human resources to execute these plans. In Viet Nam, JICA started formulating master plans in Hanoi and Ho Chi Minh City and centrally located Da Nang in 2008. In line with this, JICA launched a human resource development project in March 2009 to promote locally led plan formulation in rural centers as well.

While traditional development plans were administrative-based, the formulation of master plans in Viet Nam included a survey of 10,000-20,000 people, a technique being used more frequently to ensure people's opinions are adequately reflected in development plans. JICA also supports the improvement of impoverished living environments by strengthening the capabilities of organizations involved in new technological research and development related to housing projects. It also provides accurate geographical information such as maps that are indispensable to development planning.

Regional Development from a Macro Perspective

As regional needs diversify, it is essential to adopt a wider view to tackle the problems of a particular city or region rather than addressing issues individually. In that sense, JICA has begun regional development efforts from a macro perspective, even across borders, by looking at the larger picture from multiple angles instead of focusing on a single region that is developing slowly.



Local citizens participate in urban planning in south Qanawat, Syria.

Freight and Transportation

Infrastructure Realizing People's Potential

Enhancing Cross-Border Transport Infrastructure to Strengthen Regional Development

Overview of Issue

In developing countries, expansion of freight and transportation infrastructure is slow, which impedes economic growth and contributes to poverty. The movement of goods and people is indispensable in the progress of any nation, and infrastructure development can have positive effects like a reduction in CO₂ emissions through less traffic congestion, more efficient logistics as well as less air pollutants.

Demand for freight and transportation infrastructure development, including roads, railways, ports and airports, remains high worldwide. On the other hand, the need to maintain, repair and upgrade aging structures is expected to rise. Securing funds for such costly projects is a huge challenge. Since it is difficult to develop infrastructure on limited public funds alone, JICA considers other ways such as injecting private capital in order to continue providing the transportation services expected by users with as little waste as possible.

It is also important to consider the environmental and social impact, and to support the partner countries which try to solve the negative impacts resulting from development.



Sihanoukville Port, Cambodia



Case Study

Creating Foundations for Development as a Country in the Mekong Region

Located in the south of the Indochinese Peninsula, Cambodia is an important hub for the distribution of goods to global markets. However, freight and transportation infrastructure was largely devastated during the Pol Pot era.

JICA has been helping to develop roads, bridges and ports in the years of recovery. It has been implementing a five-year plan known as the Program for Improving Main Economic Infrastructure since 2007.

Development of Freight and Transportation Infrastructure as a Top Priority

Bordered by Thailand, Laos and Viet Nam, Cambodia has three international trunk routes passing through it: the southern corridor, the southern coastal road corridor and the central corridor. Although Japan, the Asian Development Bank (ADB), World Bank and others are working in tandem to upgrade the international highways as well as key national roads, increased cooperation from emerging nations such as China, Thailand and Viet Nam has prompted the need for coherent assistance across donors.

In the "National Strategic Development Plan 2009-2013," the Cambodian government slated the advancement of a transportation network as a priority issue. Such a network is seen as the driving force behind economic expansion and rural development. JICA's Program for Improving Main Economic Infrastructure aims to provide assistance in this regard.

The objectives of the program are to support the ongoing development of social foundations through better management, operation and maintenance as well as establishment of freight and transportation infrastructure. JICA will cooperate from both structural and non-structural perspectives mainly in the southern corridor, the Phnom



"Part of my place of business was taken down in the upgrade of National Highway 1, but I was duly compensated. The road is much better now and I have more customers. There's also less damage to products. Business is good." Dr. Kuch Sangva Reth runs a clinic and pharmacy along National Highway No. 1.

Penh Metropolitan Area and provincial towns. Key initiatives include development of an international highway and bridge, and reinforcement of functions at the Sihanoukville Port, which handles the bulk of the country's international cargo and container traffic.

Structural and Non-Structural Cooperation

In terms of structural assistance, JICA is providing Grant Aid to upgrade around 52km of National Highway No. 1, part of the Asian Highway 1 (AH-1) connecting Ho Chi Minh City in Viet Nam with Bangkok in Thailand. JICA is also conducting a survey design for the Neak Loeung Bridge, planned for construction on the Mekong River crossing point along the same highway. In terms of non-structural assistance, transport policy advisors have been sent to help combat overloaded vehicles, introduce kilometer posts and formulate guidelines for road maintenance. Further support includes improving the capacity of administrative officials through a Technical Cooperation project to boost quality management in the construction of roads and bridges. In addition, JICA is implementing a Technical Cooperation project to strengthen administrative capacity

Cambodia: Program for Improving Main Economic Infrastructure

to enable the smooth movement of people as part of a public-works initiative. In response to increasing urban traffic volume, JICA is supporting the formulation of an urban traffic master plan and is planning to help with periodic inspection and assessment of soundness in bridges, and with plans for replacement.

With regard to port development, JICA is cooperating with the urgent expansion of Sihanoukville Port, the international port, and is promoting a plan for the development of a special economic zone near the port as well as the development of a multipurpose terminal through ODA Loans. Grant Aid is also being used to set up security facilities and equipment at the key port. Port operation advisors have been dispatched to Sihanoukville Autonomous Port to assist with human resource development and enhancing system creation capabilities. They also help the central government ministry (Ministry of Public Works and Transport) formulate policies and establish an administrative framework through a Technical Cooperation project. In addition, JICA plans to increase the international competitiveness of the port and is conducting a study into demand related to an increase in cargo volume handled and supporting the creation of a development plan.

A View from Our Partner

Tauch Chankosal, Secretary of State for the Ministry of Public Works and Transport

The Japanese government has been helping us get back on our feet following the devastation of the civil war. The development of freight and transportation infrastructure is a priority issue for the rehabilitation of the country. A bridge from Phnom Penh toward Angkor Wat, rebuilt with funds from Japan, was called the Cambodia-Japan Friendship Bridge. We are also grateful to Japan for helping us upgrade the important National Highway No. 1, which is part of our main trunk route.



National Highway No. 1 prior to rehabilitation



The clinic (left) and National Highway 1 following upgrade

JICA Activities

JICA's main goal for cooperation in transportation is the swift, smooth and safe transportation of goods and people in order to vitalize socioeconomic activities and to ultimately improve income levels and enrich people's lives.

It is not merely enough to simply build roads and bridges to establish freight and transportation infrastructure in developing countries. It also requires complete planning to ensure an efficient system as well as a framework for appropriate operation and management of facilities. For that purpose, it is necessary to develop human resources and institutions to make sure that transportation systems continue functioning. JICA promotes citizen participation and collaboration with NGOs in consideration of users and residents who will use the system and for what purpose.

JICA also provides non-structural assistance in the following areas: (1) Development of fundamental capabilities to boost administrative capacity (capacity development for transportation); (2) Regionalization and internationalization to accelerate the development of regional economic zones and the international flow of goods and people (international transportation); (3) Balanced national development and preservation of people's right to accessible transportation (national transportation); (4) Technical Cooperation supporting sustainable urban development and enhanced living standards (urban transportation); and (5) Minimum transportation infrastructure to improve rural living standards (local transportation).

Cross-Border Transportation Infrastructure

Transportation infrastructure requires cooperation from several countries that goes beyond a bilateral framework, for example, when going into a country by passing through a different coastline of another country.

JICA views cross-border transportation as a way to promote regionalization by expanding areas that transcend borders. This requires the development of a regional network for transportation across borders, simplified procedures to promote cross-border transportation and non-structural elements such as fostering human resources.

Inter-regional cooperation is also required for the development of cross-border transportation infrastructure. The Study of the National Logistics Network Project in Laos, which began in March 2008, investigates the role of Laos and Cambodia in cross-border transportation infrastructure since these two countries have a lower economic growth rate than Thailand and Viet Nam.

Fostering cross-border transportation is expected to invigorate economies in developing countries and regions, help correct disparities between regions and contribute to poverty reduction. JICA also takes into account negative consequences, including disproportionate gain by economically stronger regions and the spread of diseases such as HIV/AIDS.



Second Mekong International Bridge between Thailand and Laos. This has shortened the delivery time of goods from Bangkok to Hanoi, which took around two weeks by sea before the bridge establishment, to around three days by land. (Photos by Shinichi Kuno)



Information Technology (IT)

Delayed Introduction of IT Inhibits Economic Development

Bridging the Digital Divide among Countries and Regions

Overview of Issue

Information technology (IT) has been advancing remarkably in developed countries. Applicable in the administrative, social and economic fields, IT has been used to computerize central government operations (e-governance), educate via the Internet (e-learning) and facilitate digital trade and commerce (e-commerce). In developed countries, IT also has the potential to increase efficiency in economic and social systems, raise productivity, enhance lifestyle quality and improve services for its citizens.

Many developing countries, however, have yet to reap the benefits of IT. Disparity in IT resources between countries has led to a “digital divide,” which in turn has worsened economic differences.

JICA Activities

JICA believes that it is important to use IT not only for related projects but also for other kinds of projects to increase its effectiveness and efficiency.

At the G8 Kyushu-Okinawa Summit of July 2000, Japan asserted its stance to help bridge the digital divide in developing countries through distance learning and other means.

The Japanese government also announced its plan to use ODA funds more effectively and establish IT bases in 30 locations. Through these actions, JICA has also tackled efforts to correct the digital divide in developing countries mainly in Asia.

IT Policies Linked to Social and Economic Development

JICA has formulated the following five strategic objectives to address the delayed introduction of IT in developing countries:

- 1) Improve IT policy-planning capabilities: Dispatch advisors to formulate IT policies in such areas as national strategy, electronic communication and promotion of industry.
- 2) Train skilled IT personnel: Implement a human resource development project to enhance the capabilities of technicians and policy planners in order to further spread IT usage. This step comprises a large proportion of JICA's IT support efforts.
- 3) Develop IT infrastructure: Formulate a plan to develop infrastructure for central and regional communication networks, and reinforce its maintenance and management systems.
- 4) Improve efficiency in different fields through IT: Increase business efficiency by adopting IT in government administrative departments and using IT to enhance educational, medical and commercial areas.
- 5) Improve efficiency in assistance through IT: Expand the use of JICA-Net operations to address the different issues of IT.



The Project for Construction of Information and Communication Technology Center (ICT) at the University of the South Pacific. Advancement of the ICT is essential for Pacific island countries to respond adequately to globalization.