

Japan's ODA Projects to Address the International Digital Divide

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Ministry of Foreign Affairs

At the G-8 Kyushu-Okinawa Summit in July 2000, IT was taken up as one of the main subjects of discussion and the "Okinawa Charter on the Global Information Society" was adopted. Prior to the Summit, Japan had announced a "Comprehensive Cooperation Package to Address the International Digital Divide" and made our intentions known that Japan was ready to give positive assistance centering on the following four fields:

- (1) Raising Awareness and Contributing Intellectually to Policy and Institution-building
- (2) Developing and Training Human Resources
- (3) Building IT Infrastructure and Providing Assistance for Network Establishment
- (4) Promoting the Use of IT in Development Assistance

Since then, In order to bring this idea into shape, Japan, taking every opportunity, has been engaged in policy dialogues with developing countries interested in IT development. In particular, Japan has dispatched missions for policy dialogue and project formation to such Asian countries as ASEAN members with whom she has close relations. In January this year, the then Prime Minister Yoshiro Mori made a tour of African countries and pledged cooperation for IT development there. Thus, Japan is now engaged in a series of policy dialogues with these countries as well.

The reason why Japan attaches importance to consultations with developing countries on the implementation of her cooperation is because IT is a comparatively new field, which has been rapidly developing, and a method has not necessarily been established yet to utilize it effectively for economic and social development. Also, it cannot be said that there is only one correct answer for success by IT utilization and, it must be pointed out, therefore, that flexible response is needed in accordance with the actual conditions of the country or the region.

Japan considers it essential that the discussions with those involved be translated into concrete actions and has actually executed a considerable number of assistance projects. It is the policy of the Japanese government to actively support the developing countries' efforts to address digital divide,

positively endeavoring to help project formation, while paying due consideration to the government initiative of developing countries.

Following are the examples of major ODA projects in the four fields Japan considers important that have been implemented so far.

1. Contributing Intellectually to Policy and Institution-building

Many developing countries are endeavoring to make policies and systems to promote IT in an effort to adjust themselves to the fast developing globalization. Japan has so far been extending assistance to the formulation of policies and systems in various fields, but since IT is in a comparatively new and fast developing field, the formation of effective policies and systems is very important to promote IT utilization in the developing countries. Japan, paying due attention to the actual needs of the developing countries, has been extending assistance in the formation of policy advice and plans as well as data bases.

(1) Indonesia/Assistance to the formation of IT policies

In order to assist IT policy formation, Japan has been sending senior advisers and giving comprehensive policy advice since April 2001. Prior to this, Japan had been sending specialists of IT-related field like telecommunications and broadcasting on a long-term basis to Indonesian ministries and agencies concerned. Based on the analysis of the present situation by these specialists, and also with reference to the survey by local consultants, the senior advisers are trying to make appropriate recommendations agreeable to the actual situation in Indonesia.

(2) Formation of telecommunication network maintenance plan (Laos and Mongolia)

Telecommunication network is in the field, which it is very necessary to build intentionally, not only from IT viewpoint but also as the basic infrastructure to promote socio-economic development. Considering various ways to raise funds to construct communication network in areas where private investment cannot be expected, Japan is conducting development studies in Laos and Mongolia to formulate plans for building telecommunication networks that make use of techniques matching to the circumstances of the locality.

(3) China/Environmental Model City Project (Guiyang and Chongqing)

This is an enterprise to prevent air-pollution and realize the concept of environmental model city for Guiyang and Chongqing, which are facing serious environmental pollution issue like air-pollution. The computer is introduced for the construction of an automatic monitoring system to determine the main source of pollution. Japan is assisting the enterprise by extending yen loan.

(4) Construction of Geographic Information System (GIS)

In order to promote development in developing countries, it is highly effective to strengthen administrative organs' fundamental ability for policy formulation through IT utilization making a data base which put together all the information about land use situation and disaster risk based on topographic map. Japan has been helping the making of GIS in various countries every year; in recent years she has given assistance to Macedonia, Cambodia, El Salvador, and Guatemala.

2. Developing and Training Human Resources

Japan has attached special importance to the human resource building and the personnel utilization in the developing countries as a basis for promoting the self-help effort on a long-term view. Japan is sending experts, carrying out study programs, and giving assistance to education and training organizations for the purpose of helping the human resource building in various areas necessary for promoting IT utilization in developing countries. Also, with IT advanced countries like Singapore, Japan is working out a program (south-south cooperation) to assist the building of IT personnel of the third country.

(1) Southeast Asia Engineering Education Development Network (SEED-Net)

Japan is extending wide area cooperation for the promotion of human resource building for the purpose of improving engineering education and bridging the gap existing among ASEAN countries as a whole, as well as constructing a "people-to-people network" between Japan and ASEAN members. Taking 19 top-level universities in 10 ASEAN countries as partners, Japan is helping to foster personnel by exchange

of students for MA within the region and inviting Ph.D. candidates to Japan, and through the promotion of research activities, dispatch of scholars and university professors from Japan to the ASEAN universities. The opening international conference was held in April 2001 and the network formally started activities. The SEED-NET activities include the IT sector, which will be dealt with jointly as a common agenda by the participating universities. Among them, there are universities that Japan has been cooperating with for many years in the field of telecommunications. It is hoped that the result of such cooperation be shared widely within the ASEAN region.

(2) Establishment of human resources cooperation center

Aiming to assist fostering human resources which leads to the realization of market economy throughout Asian countries, Japan has been working on a plan for the establishment of human resources cooperation centers in Vietnam, Laos and Mongolia, etc. Those centers will provide Japanese language courses, and also implement practical, high-level business training including IT utilization techniques. Wide utilization of IT in the private sector will enable these countries to lay solid foundation for sustainable development under the market economy and for strengthening economic relations with Japan. The scope of trainees and content of the courses will be adjusted to the needs of the recipient country, including policy-makers and IT engineers training.

(3) Assistance to third countries through IT advanced countries (JSPP21)

There is a joint program for building human resources of developing countries, the cost of which is borne by Japan and Singapore on a 50-50 basis. It is called "Japan-Singapore Partnership Program for the 21 Century" (JSPP21). Every year, nearly 20 training courses are offered, accepting trainees from neighboring countries. Eight IT-related courses will be open in 2001.

3. Building IT infrastructure and Providing Assistance for Networking

Improving and reorganizing existing timeworn telecommunication network systems as well as establishing basic IT-related infrastructure in some developing countries are becoming urgent issues. For these

developing countries, enhancing their educational system in remote areas by using IT and developing telecommunication systems to deal with natural calamities are the main reasons for having to eliminate digital divide at home.

On the other hand, in other developing countries where basic infrastructure has already been built, a new type of infrastructure to support IT industry is becoming necessary. For example, in India where IT industry is expected to grow as a new type of core industry, the construction of new power plants is required to cope with the increasing power demand caused by the development of IT industry. For IT industry, it is absolutely necessary to have stable supply of electric power. This is clearly demonstrated by the fact that Silicon Valley was adversely affected by the power crisis that had occurred in California, U.S.A. In this connection, the construction of power plants to support IT industry is also considered in a broad sense as part of IT assistance.

Furthermore, the IT utilization has an immediate effect in various ways on the efficient use of existing facilities and serves in good stead for effective and efficient implementation of the assistance. Just to give an example, in some developing countries in Asia, new traffic and flight control systems are being introduced to meet the demanding problems like traffic congestion caused by rapid economic growth. For this kind of system introduction, Japan's assistance is utilized.

【Examples of assistance for the construction of IT infrastructure and network】

(1) Angola/Project for Rehabilitation of Telephone Network in Luanda Phase II

This project is for the improvement of the present poor condition of telephone communication in Luanda city, the capital of Angola, where telephone trouble occurs frequently due to the old, worn-out cables and the deficiency of the wiring method. In order to ameliorate such condition, Japan is assisting the installation of telephone networks of 10,000 lines each in two areas of the city by extending grant financial assistance.

(2) Tanzania/Project for Strengthening the Radio Broadcasting for School

Education by Improving the Quality of Education and Promotion of Equal Access to Education

The aim of this project is to modernize the broadcasting facilities (transmitting station, studio, etc.) and provide equipment (transmitter, voltage controller, etc.) by grant aid. The project address the problem of deteriorating service due to the dilapidation of the facilities and materials at Radio Tanzania Dar es Salaam, which is the only public radio station in Tanzania.

(3) China/Liaoning Television and Radio Infrastructure Improvement Project

This project is to serve redress domestic digital divide by improving both quality and quantity of TV and radio programs of the broadcasting facilities in Liaoning Province, China, with Japan's yen loan assistance. Under the project, it will become possible to renew equipment for TV broadcasting and for educational TV, construct facilities and provide equipment for radio broadcasting, and build and maintain transmission channels.

(4) India/Simahadri Thermal Power Station Project

This project, assisted by Japan's yen loan cooperation, is to build a thermal power station with output capacity of 1000 MW in the suburbs of Vishakhpathnam to meet the electric power demand of Andhra Pradesh Province in southern India, where the Indian government is endeavoring to foster IT industry. By implementing this project, Japan is contributing to improve the quality of life of the people in the region as the increase of power supply will help the activation of industries including IT, leading to the augmentation of employment, electrification and promulgation of electric appliances in rural areas.

【Cases in which IT was utilized for the improvement of concrete services】

(1) Indonesia/Institutional and Human Resources Development for IT-related Customs Services Improvement Project

As a member of WTO, Indonesia is required to speed up the customs procedure in accordance with the WTO rules, but due to a large increase in the trade volume, Indonesia is facing difficulty in meeting the

situation by appropriate and prompt processing. This project, assisted by Japan's yen loan cooperation, is to modernize and improve the transparency of the customs work by introducing IT and new systems as well as fostering personnel.

(2) The Philippines/Project for Rehabilitation of the Flood Control Operation and Warning System in Metro Manila

This project, assisted by Japan's grant aid, aims at the providing equipment to make more accurate flood forecast and its control by introducing IT technologies to the EFCOS (Efficient Flood Control Operating System). This system was previously built by Japan's yen loan cooperation for the flood control and inland water draining for the Manila metropolitan area. By dint of this project, the speedy and accurate operation of the diverging floodgates will become possible and less areas will be affected by flood. Furthermore, this project serves for sending accurate flood warning to the residents by locating radio transmitters for emergency use.

(3) The Philippines/Improvement of air traffic control

In some Asian countries where high economic growth is taking place, the existing airport capacity is unable to meet the growing demand of passengers and air cargo. There are also considerable cases where the expansion of airport facilities is difficult because of the limit imposed on by rivers, roads and living quarters around it. Under these circumstances, it would be effective to introduce the most advanced IT and renew the airport safety facilities centering on the air traffic control system, thereby enhancing the throughput capacity and safety of the air transport. Japan, by mainly making use of the yen loan cooperation, is contributing to resolve these problems. One of the typical example of this kind of assistance is the development project for the Iloilo airport, the Philippines.

(4) Construction of metropolitan traffic systems (India, Tunisia, etc.)

In big cities of the developing countries, efforts are being made to construct underground railways and railroads to alleviate chronic traffic congestion and improve air pollution. When Japan assists in the

maintenance of the public transport, the effect and efficiency of the assistance is enhanced by the introduction of new systems controlling signals, communications, warning and automatic train stop (ATS) which utilize IT. By way of illustration, one can cite such projects as the construction of underground, elevated and ground railroads in Delhi, India, and suburban railways in Tunisian metropolitan area.

4. Promoting the Utilization of IT in Development Assistance

It is considered highly effective to build a system utilizing the up-to-date IT to overcome the constraint of time and distance when such technical assistance as dispatch of experts or training is implemented. From this point of view, Japan intends to construct bases for a network of distance technical cooperation called "J-NET."

This system aims at extending timely and flexible technical cooperation and policy advice to the developing countries, by linking the core centers in Tokyo and Okinawa, and satellite centers to be set up at human resource building bases in developing countries through technologies such as satellite communications. It is planned that satellite centers will be established in Thailand, Indonesia, Malaysia, and the Philippines in JFY 2001.