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Special Reports

Operational Priorities



In accordance with the MDGs set out by the UN for developing nations, aid communities have been considering how to make the best of resources to improve aid effectiveness and strengthen governance.

In recent years, these agencies have set out their priorities in terms of implementing projects. The Asian Development Bank's (ADB) highest objective, for example, is to overcome poverty, while its five core priorities are basic infrastructure, environmental protection (climate change), regional cooperation and integration, the financial sector, and education. The organization is promoting these operations from 2008 to 2020 as part of its long-term development strategy, "Strategy 2020."

At the TaiwanICDF, we have considered the practices of many international agencies and responded to the international community's changing and increasingly complex development needs by formulating our own Vision 2022 that specifies our long-term objectives and the way forward in the coming decade. We have also set out the priority areas that will receive the lion's

share of our resources: agriculture, public health, education, information and communications technology (ICT), and environmental protection.

Since these changes should not impact the promotion or scope of our operations, we are also making the implementation of our operations a priority, developing financial strategies in response, and strengthening the budgeting operations set out in our medium-term work plan, as well as increasing synergies in the overall use of funding.

Working on the notion that we should not implement projects outside of our list of priority areas, we will review the rationality of decision making. In addition, we will regularly review the implementation of various projects and adjust the scope of our priority areas in keeping with the times. This can help us to achieve our project objectives and vision as effectively as possible, while also facilitating long-term planning and making effective use of resources.

In this chapter, we look at some of the specific objectives and programs under way for each of our priority areas.

Agriculture



Global climate change has impacted food supplies around the world to varying degrees. One such impact has been the continued rise of international food prices, resulting in widespread panic and unrest in many countries with a long-term dependence on grain imports. This compromises economic growth for the majority of farmers and low income households, while also hindering overall national development because they have no way to respond to changes in the environment, keeping people trapped in poverty and hunger.

Geographically speaking, the majority of Taiwan's allies and the TaiwanICDF's partner countries lie in the tropics. These countries have similar climates and conditions for agricultural development to Taiwan and therefore Taiwan's skills and experiences in tropical agriculture stand out as advantages, making us ideally placed to address partners' needs and to provide suitable solutions.

In addition, over the decades Taiwan has developed a host of agricultural policies and supporting systems, including measures designed to stabilize agricultural commodity prices, to provide guidance to farmers' organizations, and to cultivate agricultural production skills and human resources. This not only provided Taiwan with ample nutritious food sources, safeguarding food security, but also turned agriculture into one of the cornerstones of Taiwan's economic development, bringing about Taiwan's subsequent commercial successes and national development. Our country's unique

development experience truly is something that partners can learn from.

To reduce the impact of food crises among our partners, we use our technical cooperation model, focusing on increasing yields of grain and the production of animal protein, and introducing the advantages present in Taiwan's own production sector. In terms of rice production and aquaculture, for example, by increasing productivity and promoting balanced nutrition we are increasing food self-sufficiency in our partner countries.

In terms of production management, we are active in promoting the development of partner countries' agricultural sectors. This means, for example, introducing guidance to farmers' organizations through marketing classes and the experiences and practices of cooperatives and farmers' and fishermen's associations, integrating marketing information and developing key technologies associated with agri-business. All this serves to strengthen partner countries' agricultural policy development and operational efficiency, while also increasing farmers' income, directly improving their quality of life.

To ensure that projects develop sustainably and that long-term benefits continue to expand, we are also providing farmers and micro-enterprises with short- and medium-term financing, assisting them to become self-reliant. This supports the development of sustainable agricultural production in our partner countries and addresses the first MDG, "eradicate extreme poverty and hunger."

Case Study 1

Banana Black Sigatoka Disease Prevention And Treatment Project, St. Lucia

Bananas and plantains are important cash crops in St. Lucia, one of our Caribbean partner countries. Banana plantations cover 1,822 hectares while plantain plantations cover 202.5 hectares, altogether producing six varieties of fruit. Bananas and plantains account for about 40 percent of output among St. Lucian farmers and are the country's biggest agricultural exports, representing 50 percent of total exports.

Unfortunately, when St. Lucian authorities discovered and confirmed the presence of Black Sigatoka on the island in 2010, the Ministry of Agriculture, Food Production, Fisheries & Rural Development had no prevention mechanisms in place, and was not able to take immediate action. To add to this, the country was also struck by a hurricane toward the end of the year, leaving the government with little time to attend to other issues. Lacking capital and skills, banana farmers had no way to respond for themselves. This led to the rapid spread of Black Sigatoka throughout St. Lucia, infecting up to 70 percent of the country's banana and plantain plantations.

At this point, the Ministry of Agriculture was estimating that if further action wasn't taken, the country's entire banana industry would be wiped out within one or two years, which would have had a huge impact on the national economy.

Building Basic Prevention Mechanisms, Implementing Disease Prevention and Control

Faced with this warning and looking to control the spread of Black Sigatoka, the Ministry of Agriculture established a Black Sigatoka Management Unit in July 2012 to direct and coordinate the various units involved in preventing the epidemic. The ministry also actively sought out cooperation from Taiwan, hoping to tap into the long-term research that our country has invested in banana-related diseases, including disease prevention and control, and our abundant experience of testing and establishing virus-free seedling production systems.

After receiving a plan from St. Lucia for a Banana Black Sigatoka Disease Prevention and Treatment Project, our Ministry of Foreign Affairs (MOFA) commissioned us to appraise the project. We then began to implement the project in cooperation with the St. Lucian government in August 2013.

As part of this two-year project, we have dispatched a project manager to St. Lucia to help



A local technician working with the Taiwan Technical Mission in St. Lucia transplants banana seedlings.

in building basic prevention mechanisms that will improve institutional capacity and strengthen staff skills. We're also assisting St. Lucia to implement disease prevention and control measures through related methods and standards, strengthening national capacity and the effectiveness of its fight against Black Sigatoka.

■ **Assisting St. Lucia to build basic prevention mechanisms:** Including the construction of a lab for soil and disease analysis, a weather station and other facilities.

■ **Improving institutional capacity:** Including the establishment of sound Black Sigatoka control methodologies, as well as monitoring and early-warning systems, and the introduction of disease-resistant varieties.

■ **Strengthening staff skills:** Including teaching farmers to use appropriate treatments based on early-warning systems. Plantation management operations and a demonstration area will also be established, improving management techniques, enhancing drainage procedures and strengthening fertilizer management and the proper application of chemicals. In addition to producing a handbook covering standard operating procedures for plantation management and disease prevention, training courses and counseling and guidance will also be provided to assist participating farmers.

In short, working in cooperation with the St. Lucian Ministry of Agriculture, we are looking to achieve the following project objectives: (1) establish a lab for the purposes of soil and disease analysis; (2) introduce disease-resistant varieties of banana and plantain, carrying out in situ training and trial planting; and (3) provide ongoing training to local staff as part of these processes. This will protect the safety of agricultural production and is expected to raise the value of St. Lucia's agricultural trade, helping the project to develop sustainably.

Case Study 2

Les Cayes Cereal Crops Development Project, Haiti



Under the guidance of technicians from the Taiwan Technical Mission, farmers in Haiti learn how to use line markers to mark out paddies. This helps to manage the distance between rice seedlings when they are transplanted, increasing growth rates and improving yield and quality.

In order to address serious social problems in Haiti, we implemented our Torbeck Rice Production and Marketing Project from 2009 to 2012 in cooperation with the Haitian government. The project assisted in the development of the rice industry in and around the town of Torbeck, and improved self-sufficiency in food production in southern Haiti.

On completion of the project, per-unit yields of rice had increased dramatically, from 1.5 tons per hectare to 3.5 tons per hectare. Impressed, and keen to sustain these achievements, the Haitian government proposed the Les Cayes Cereal Crops Development Project. The hope is to continue to improve crop yields and further strengthen the development and marketing of farmers' organizations, forming a whole industry chain and widening impact in cereal producing areas throughout the south, so as to enhance farmers' profitability.

Enhancing Crop Yields

The project continues to improve yields of cereal crops in Les Cayes through the following methods:

- Performing a survey and analysis report of crop production.
- Setting up simple mechanisms for gathering basic meteorological data within the region.
- Demonstrating the cultivation of maize, beans and paddy and upland rice.
- Providing guidance on cereals, and paddy and upland rice in extension zones.
- Organizing demonstrations on the cultivation of food crops, and training, contests, agricultural exhibitions and similar activities.
- Assisting the Ministry of Agriculture in the production

of technical manuals, covering cultivation systems for maize, beans and paddy and upland rice.

- Cooperating with the Haitian government to promote better varieties, experiments in improved cultivation techniques, and agricultural exhibitions in southern provinces.

- Cooperating with the Haitian government to carry out renovation work on irrigation systems in Perien, Dubreuil, Morau, Torbeck and other locations; assisting water management committees in each irrigation area and helping farmers' organizations working along the upper, middle and lower reaches of irrigation channels to form water management teams, coordinating water allocation to farmers and gathering data about flow rates.

Establishing a Model for the Development of Farmers' Organizations

Providing guidance in the relevant locations, the project will establish three rice marketing groups, and one maize and bean marketing group, strengthening the functions of farmers' organizations from production through to sales. The joint formulation of operational regulations will effectively improve a common range of capabilities involving procurement, contract farming systems (privatization), financial management, basic post-harvest handling procedures, and sales, ultimately assisting to establish a model for management operations.

The project will utilize the warehouses, drying yards and other facilities originally developed as part of the Torbeck Rice Production and Marketing Project, guiding "Madam Sara" (the common term for referring to local brokers) to establish production and marketing teams, assist in improving the quality of produce after it is harvested, strengthening the use of associated equipment and expanding sales channels among, for example, local wholesalers and NGOs. The resulting income will be returned to farmers. In addition, encouraging participating farmers to purchase and raise livestock for themselves will not only increase maize consumption, but also provide cattle for sale to market, increasing incomes.

Estimates indicate that the project, once fully implemented, will raise the market value added to cereals produced in southern Haiti by 216 percent, and that Les Cayes' contribution to Haiti's GNI will have risen 4.94 percent.

Case Study 3

Strengthening the Control of HLB and the Implementation of Integrated Pest Management in Citrus Project, Central America

In December 2012, Taiwan's ambassador to El Salvador and representatives of the International Regional Organization for Plant and Animal Health (OIRSA) signed an agreement with seven countries – the Dominican Republic, Guatemala, Belize, El Salvador, Honduras, Nicaragua and Panama – to work together on a five-year Huanglongbing (HLB) prevention and integrated pest management program. In accordance with project orientation and to emphasize the principle of local ownership, the OIRSA and the relevant agencies from each partner government would be jointly responsible for project implementation. The initiative officially got underway on January 1, 2013.

Year One: Improving Prevention and Control Concepts, Application Strategies

Key activities during the project's first year of implementation included training to provide general knowledge about citrus diseases and training on managing disease prevention and control, reinforcing and improving farmers and technicians' prevention and control concepts, as well as the application of effective prevention and control strategies. All of these activities, described below, strengthened general understanding of HLB throughout the region.

■ **Strengthening human resources:** In May 2013 we organized our first Workshop on Technology in the Prevention of HLB in Citrus, with participants including officials from partner countries' agriculture ministries and plant quarantine agencies, as well as project personnel. The curriculum, designed in accordance with the project's actual conditions, included content covering citrus disease and pest management, healthy seedling management techniques, and Taiwan's HLB prevention, control and warning systems, making HLB prevention and control system concepts the focus during the project's first year. This will assist partner countries to draw up and establish healthy seedling production regimes and implement epidemic prevention concepts as a step toward safeguarding their respective citrus industries.

■ **Enhancing institutional capacity:** In the first year, the establishment of healthy citrus seedling production regimes focused on establishing cutting orchards and seedling nursery isolation facilities.

■ **Promoting awareness of prevention and control concepts:** Reports from the media and experts were used to raise public awareness throughout the region.



To breed healthy citrus fruit seedlings, the TaiwanCDF plans to construct greenhouses in El Salvador. Shown here, project manager Santiago Huang (third from left) explains design and production concepts to visitors following a groundbreaking ceremony for the project.

■ **Economic and development analysis:** A cost-analysis report on grafting in the project's various partner countries has been completed and used to estimate production costs for the seedlings required, and to calculate the individual cost of these seedlings.

For 2014, Strengthening Production and Management Training

In 2014, project implementation will focus on strengthening production and management training for professional staff, as well as establishing HLB testing labs in individual partner countries, a regional cutting library, and stem cutting propagation labs and multifunctional net houses for seedlings. This will protect the safety of agricultural production through the provision of healthy seedlings, and increase the value of agricultural trade. Training will focus on:

■ **Polymerase chain reaction (PCR):** This rapid method for diagnosing HLB, which can quickly and accurately detect pathogens, will facilitate quarantine and disease-free seedling management.

■ **Shoot-tip grafting:** This technique utilizes cuttings from cutting libraries and orchards to cultivate healthy, disease-free seedlings in pest-free net houses.

■ **Healthy nursery plant production:** Through this propagation regime, partner countries will be able to build capacity in the production of healthy, affordable and high-quality citrus nursery plant.

We will continue to work toward the project's objectives and schedule, in cooperation with the OIRSA, strengthening project management, improving partner countries' disease control and quarantine techniques and accelerating assistance to build their capacity, thereby implementing effective and sustainable assistance work.

Public Health



In its World Health Report 2013, the World Health Organization (WHO) stresses that the objective of universal health coverage is to ensure that everyone can receive the health services they require at an affordable cost. Following the development of public health promotion, community-based health care systems and public health services, Taiwan has a wealth of experience and resources that can be used to help partner countries, providing our own experiences as an example.

In 2013, our public health projects focused on three themes.

Promoting the Prevention and Treatment of Communicable Diseases

Continuing to reduce the social burden posed by HIV/AIDS, tuberculosis, malaria and other communicable diseases is one of the UN's post-2015 objectives. With Taiwan's abundant experience in the prevention and treatment of such diseases, as part of the ROC-Burkina Faso Medical Project, for example, we have stationed professional medics at our Taiwan Medical Mission in Burkina Faso, increasing our partner's capability to provide medical services

and improving management at the Friendship Hospital in Koudougou. Through health education and promotion, the mission also raises knowledge and awareness among schoolchildren in the community of the key issues touched upon by the WHO and the sixth MDG, including HIV/AIDS and diarrhea.

In terms of the case management of communicable diseases, by utilizing the strengths of ICT management at Taiwanese hospitals, we assist hospitals in partner countries to improve patient tracking and reduce default rates. In 2013, we completed investigation, appraisal and signing procedures in preparation for our Strengthening the Management of HIV/AIDS, Tuberculosis and Hypertension among Mobile Populations in Southern Africa Project, which is set to start in January 2014.

As part of the implementation of this project we will be working in Malawi and South Africa, providing the care and medical information needed to support regular check-ups for patients with HIV/AIDS, tuberculosis and hypertension. We will also assist in capacity building for hospitals in follow-up work and care networks, thereby reducing the default rate among patients, and improving survival rates in turn.



In cooperation with Changhua Christian Hospital, a Taiwan/CDF mission to Papua New Guinea provides medical services as part of the Medical Project in Pacific Island Countries.



Preparing equipment for use in surgery as part of the Medical Project in Pacific Island Countries.

Health Promotion and Disease Prevention

Health promotion and disease prevention can reduce medical expenses and improve people's health, bringing benefits to the overall development of public health and medicine in our partner countries. Associated activities need to be designed to account for influencing factors such as age, socio-economic status and education levels.

In 2013, we dispatched an identification mission for a new project, Establishment of a Basic Prevention and Control System for Chronic Renal Failure in Belize, assisting in planning a skills building project for the prevention of chronic kidney diseases. In addition to planning training for nephrologists, and more importantly through recommendations on disease prevention at investigative and policy levels, we will use perspectives on frontline health promotion and disease prevention to build up Belize's capabilities in preventing and controlling kidney diseases. We expect that this will reduce long-term national and personal financial burdens by reducing the need to treat kidney diseases as a last resort.

Developing Cooperative Relations With Partners, Operating Sustainably

In its current phase, the development of international public health assistance requires close cooperation between the public and private

sectors. Regardless of where the resources and know-how may come from, cooperation and sharing are needed in order to provide more effective project content and to strengthen partner countries' development capacity.

As part of our Healthcare Personnel Training Program and through medical missions to the Pacific, our International Healthcare Cooperation Strategic Alliance (IHCSA) has been assisting partner countries in training public health and medicine professionals since 2006, raising the quality of partners' health care-related human resources. Since 2010, we have also been working with personnel from the Ministry of Health and Welfare's Global Medical Instruments Support and Service (GMISS) program¹ to jointly implement a Used Medical Equipment Donation and Training Project, providing partner countries with decommissioned but fully functioning medical equipment that satisfies their requirements. Coupled with training on the maintenance, repair and operation of such equipment, this project serves to improve partner countries' national frameworks in terms of their medical hardware. Finally, during October and November 2013, we held a Public Health Projects Cooperation Seminar in three locations in northern, central and southern Taiwan, developing relations with potential cooperating units. At present, we have already built a database of 22 medical and educational institutions that could cooperate in our public health projects, and hope to develop new initiatives with these partners in the future.

¹Taiwan's Ministry of Health and Welfare carries out the GMISS program as a means of providing assistance to underdeveloped countries, in hopes of providing these partners with surplus medical equipment or older equipment due for replacement. These activities bring assistance to countries and their citizens in need throughout the world, addressing a particular lack of medical resources in impoverished areas, and enhancing the quality of medical care and the availability of medical facilities.

Case Study

Healthcare Personnel Training Program



The TaiwanICDF assists partner countries to build capacity in accordance with their needs by matching their personnel with Taiwanese medical institutions, as shown here at Mackay Memorial Hospital.

Given that many developing countries lack healthcare educational resources, medical personnel often go abroad to receive the training they need. The fact that their own healthcare systems are incomplete, inadequately funded and lacking in human resources provides few means for professional development and training back home.

To resolve this problem, in 2005 we established the IHCSA with a group of Taiwanese hospitals and medical institutions and in that same year initiated our first Healthcare Personnel Training Program. Bringing medical personnel to Taiwan for advanced medical training assists partner countries to achieve medical targets set as part of the UN Millennium Declaration, deepening relations between Taiwan and its partners in public health. As of the end of 2013, we have already hosted 263 doctors, nurses and other medical personnel in Taiwan as part of this program.

Step One: A Matchmaking Platform

To increase the benefits of the program we changed our management approach in 2012, introducing a new system matching trainees with the managers of Taiwan's high-quality health care systems in accordance with the specific needs of different partner countries, and planning two- to three-month training courses meeting trainees' specific professional requirements and schedules. This approach assists our partners in building capacity and puts the principle of ownership into practice.

For example, to address the training needs of midwives and medical engineers in Burkina Faso, in October 2013 we invited Fooyin University and E-Da Hospital to work with us in designing two-month training courses.

To ensure that our training courses are really effective, we not only implement the program in a more project-oriented spirit, but also employ a greater number of pre- and post-training communications to understand and meet participants' requirements, and to track their learning.

For example, before trainees start their courses, we design a curriculum according to their requirements, which will be further modified after trainees confirm the content to better meet their needs. During the training period, we exercise appropriate management controls, asking participants to submit weekly reports on their training experiences, while we also ask the host units to complete questionnaires. This helps maintain better control of participants' learning progress and effectiveness, ensuring that we run an effective training program.

Step Two: Tracking Training Results

After participants have completed their training and returned home, the next step is to send personnel from their Taiwanese host unit overseas, to assess the services participants are now providing within their own units, and use demonstration-based teaching methods to ensure they can properly employ the training outcomes acquired in Taiwan. This is to ensure that substantial skills transfer is achieved among the medical personnel who have participated in the program.

By bringing trainees to Taiwan to take part in practical training, the clinical skills and standards of medical management practiced by those working in partner countries' health care systems are raised, while trainees can also become teacher trainers or assistants to Taiwanese medical missions or TaiwanICDF projects after returning home.

By broadening the depth and scope of bilateral technical cooperation in medicine and by tapping into the development potential of local personnel, we are opening a window to future cooperation with Taiwan and establishing a foundation and a channel for long-term cooperation in healthcare into the future.

Education



In a globalizing world, education is of fundamental importance for any nation seeking sustainable development, because excellent human resources are the key to enhancing national competitiveness.

In keeping with this trend and in line with Taiwan's own advantages, we assist partner countries in strengthening their education systems, cultivating professional talent in many different fields and building excellent, highly skilled human capital. This helps our partners to meet their needs for national development.

1. Reducing barriers to school attendance, achieving universal primary education

Basic education is the foundation of personal and national development. In order to fulfill one of the UN's eight MDGs, to “achieve universal primary education,” we are implementing our TaiwanICDF Scholarship Program in Burkina Faso.

We provide funding for the project, while Terre des Hommes, an NGO based in Lausanne, Switzerland, is implementing it. The project is jointly supervised by TaiwanICDF, the Taiwanese embassy in Burkina Faso and UNICEF. The project, which is operational at nine gold mines and quarries in three provinces, supports around

2,000 pre-school children, school-age children, school leavers and uneducated adolescents by providing them with primary education opportunities.

The project has also improved children's learning environments by improving primary education facilities within mine and quarry sites, enhancing educational opportunities and learning effectiveness among vulnerable children. By organizing various community activities, education and training events and seminars, the project is also raising understanding of anti-exploitation concepts and children's educational rights among teachers and parents.

2. Promoting Mandarin language learning, deepening recognition of Taiwan

To respond to the growing worldwide interest in Mandarin and to act on partner countries' need to learn the language, we are promoting social and cultural awareness of Taiwan among our partners, advancing exchanges and understanding of Taiwan and promoting the influence of traditional Chinese characters, which also reflects our government's policy of pursuing industrial and exporting power at a global level through Mandarin education.

In 2013, this led us to organize our first intensive Mandarin Scholarship Program for the Dominican Republic. The program, which has brought some of the Dominican Republic's brightest young talent to Taiwan to learn Mandarin, will integrate language-learning contexts into Taiwan's wider cultural and social landscape. The hope is that the one-year intensive language training will enhance both Mandarin proficiency and recognition of Taiwan among these Dominicans.

3. Organizing workshops in line with regional and national development needs

To improve the focus of our workshop topics and to enhance the quality of participants' learning experiences, we are gradually shifting our curriculum to emphasize special classes and methods. This includes organizing global or regional workshops or workshops for individual countries, as well as offering workshops in foreign languages other than English.

The program, designed to introduce Taiwan's unique socio-economic development and experience, assists partners in developing human resources. Program topics include economics and trade, agriculture and aquaculture, women's entrepreneurship, environmental protection and clean energy, medicine and ICT. Every year we organize around 20 workshops, which are attended by approximately 400 government officials, high-ranking officers and NGO personnel from developing countries.

4. Assisting partner countries in fostering high-level specialists

Specialist talent is the foundation of a nation's socio-economic development. Since our partner countries are at different stages of national development, the specialist disciplines they need to develop through higher education also differ.

Our higher education scholarships are provided in accordance with partner countries' specialist needs, while we continue to create English-language programs by expanding cooperation with faculties at Taiwan's top higher education institutions. In 2013, we introduced new education and medical scholarship programs. The program provides full scholarships so that talented students recommended by partner countries can come to Taiwan and study on a range of undergraduate, graduate and post-graduate programs, assisting these countries to

foster the range of professional talent they require as part of their national development.

5. Project-based technical and skills training programs:

Technical and vocational education and training (TVET) nurtures experts for economic development and represents a driving force in strengthening national competitiveness. Vocational training offers a channel through which a country can rapidly accumulate human capital and boost its labor force.

In response to the requirements of cooperative projects in a number of partner countries – including Guatemala, Belize, Honduras, the Dominican Republic, Paraguay, The Gambia, Burkina Faso and Kiribati – we have not only dispatched specialist consultants to conduct short-term courses within individual countries, but also arranged for their own personnel to visit Taiwan and attend short-term courses here, too.

Specific training topics for these bilateral cases have covered a range of topics, including: ICT industry counseling; short-term consultations on import and export quarantine for agricultural produce and livestock; rapid pesticide residue bioassay techniques; the prevention and treatment of HLB in citrus fruits; papaya cultivation techniques; skills testing and competitions; the management of feed plants; post-disaster management; micro-, small- and medium-sized enterprise (MSME) operations; grassroots training for traditional birth attendants; and nutrition-related questionnaires and surveys.

Collectively, these activities serve to publicize the outstanding skills of Taiwan's specialist consultants in an overseas context, giving play to Taiwan's soft power. By carrying out capacity building programs, we are also helping to enhance the professional capacity of technicians working in cooperating units in our partner countries, which helps to drive forward our existing projects.

6. Integrated vocational training techniques

To assist Burkina Faso enhance the quality of its workforce and employment market, in 2006 we initiated the Taiwan-Burkina Vocational Training Program, helping authorities to carry out four projects involving vocational training, TVET, human resources and technical assistance.

The project's original co-organizer, the Bureau of Employment and Vocational Training's



Teaching automation as part of the One Town, One Product Project in Honduras. The TaiwanICDF trains seed teachers and assists partners to develop such projects by utilizing Taiwan's long-term experience in promoting distinctive local products.

Central Training Center, has now completed the first phase of the program and its objectives, and therefore we have now arranged to take on technical assistance for the program from 2014, following consultation between the Ministry of Foreign Affairs and our cooperating unit in Burkina Faso, bringing Burkina Faso the benefit of our TVET and vocational training experience.

In the future, we will continue to integrate the resources of domestic units such as the Executive Yuan's Council of Labor Affairs, the ministries of education, foreign affairs and other government bodies, as well as other public sector education and training organizations. We will utilize scientific management practices as part of project management systems, establishing a cooperative project model for promoting future Taiwan integrated vocational training programs.

7. Combining loan- and grant-based technical assistance to enhance overall project synergy

While implementing educational lending projects with our partners, we also provide partners or executing agencies with technical assistance or consultancy so that loan funding can be better utilized and bring about more substantial benefits to local education systems, to both students and teachers.

The CABEL Technological and Vocational Education and Training Student Loan Fund is one such example. With student loans emerging as a new financial instrument in Central America, the TaiwanICDF also contributed non-reimbursable funds to establish the TaiwanICDF TVET Technical Assistance Fund, which is used to assist vocational education institutions and their students participating in the lending project.

Case Study 1

Vocational Training Project, Swaziland



Mechanics students with the Vocational Training Project in Swaziland take part in end of term exams at the country's National Handicraft Training Center.

In 1973, Taiwan set up a craft mission at Swaziland's National Handicraft Training Center (NHTC), organizing training in woodwork, stonework, leatherwork, ceramics, art, sewing for women and electronic mechanics. Two new subjects – word processing and appliance maintenance – were added to the roster in 1997. From 2000 through to 2006, these particular skills training operations were completed and then transferred for Swaziland to manage independently.

To meet Swaziland's overall socio-economic development needs and respond to the country's changing socio-economic circumstances, more recently we have re-examined and re-engineered this initiative to form a new Vocational Training Project. The project was launched by the Taiwan Technical Mission in 2011, and now provides vocational training courses covering four areas: sewing, mechanics, plumbing and computing.

Set to run from January 1, 2011 through to December 31, 2015, we are currently implementing the project under the oversight of the Taiwanese embassy in Swaziland and the Swazi Ministry of Commerce, Industry and Trade.

Cultivating Seed Teachers, Upgrading Industrial And Technical Human Resources

In keeping with Swaziland's overall socio-economic development needs and the principle of coordinated training, the NHTC is not only offering

sewing, mechanics, plumbing and computing courses, but is also selecting outstanding trainees for further instruction to become seed teachers, in order to cultivate local teaching resources. The center is also building up its teaching operations manuals and revenue management practices, and revising these components on an annual basis, in order to raise Swaziland's own strength in terms of vocational training. The hope is to provide qualified, skilled labor that meets the needs of the Swazi market and the country's commercial and industrial development needs, and to improve Swazi people's productivity and employment rates.

The project has already trained 33 seed teachers. These teachers are now helping trainees to sit exams to gain national certification, providing career and entrepreneurial guidance, improving graduate employment rates and capacity for entrepreneurship, facilitating socio-economic development, and improving graduates' livelihoods.

Broadening Community Education, Improving People's Employment Skills

Since Swaziland is still an agrarian society, most people need to work on their family's farm and have no way of going to the city for training. To broaden the benefits of this project, Swazi authorities are providing special classrooms and administration to support community-based courses, setting up training bases in various locations and offering a range of courses so that people can attend classes much nearer to where they live.

Swaziland's so-called "decentralization policy" and the country's social development needs also mean that computer skills have become common in the workplace and an indispensable part of the Swazi jobs market. As there is increasing demand for office workers with computer skills, the project offers night classes and weekend classes. In providing a training pipeline for job seekers, this project represents a pioneering undertaking in Swaziland.

In addition, the project offers more and more seminars and promotions so that greater numbers of Swazi citizens can understand the importance of vocational training, enhancing public awareness of this kind of training. A total of 1,936 distance learners have completed courses, while 6,515 trainees completed a recently promoted short-term computer course.

Case Study 2

Mandarin Scholarship Program for the Dominican Republic

With Mandarin emerging as one of the world's mainstream languages in recent years, there has been an upsurge in the study of the language around the globe.

While visiting Taiwan in 2012, the Dominican Republic's first lady, Cándida Montilla de Medina, said that she hoped Taiwan could assist the Dominican Republic to cultivate Mandarin speakers by making use of Taiwan's Mandarin teachers and abundant teaching resources. This could also promote the use of traditional Chinese characters and assist her country's students in their future studies and professional development in Mandarin-speaking parts of the world.

The first lady also said that she hoped that by coming to Taiwan to study Mandarin, students could come to understand Taiwan's socio-economic development and multicultural outlook, thereby enhancing exchange and understanding between Dominican and Taiwanese citizens, and strengthening the two countries' diplomatic relations, exchanges and cooperation.

Assisting Partners' Studies, Promoting Traditional Chinese Characters

In accordance with the Dominican Republic's needs and Taiwan's objective of promoting the use of traditional Chinese characters to bolster national recognition, 2013 saw us launch our Mandarin Scholarship Program for the Dominican Republic. Our first initiative of this kind, the program provides scholarships as part of a one-year, intensive Mandarin training program, assisting the Dominican Republic to nurture expertise in the language among 30 individuals.

The project is being implemented in cooperation with Fu Jen Catholic University, and follows the intensive Mandarin curriculum at the university's Language Center. Specially planned courses have been organized over four semesters, with small classes of five students, utilizing a range of teaching methods such as lectures, interactive exercises, group exchanges and multimedia learning. To assist learners to progress from a beginner and elementary level to an advanced level, courses are scheduled according to students' differing abilities, with adjustments being made to the curriculum in response to learning needs and feedback.

Furthermore, the course will encourage students to actively participate in extracurricular activities through cultural visits and school trips. This will allow



In cooperation with Fu Jen Catholic University, the TaiwanICDF provides guidance on traditional Mandarin programs and carries out regular monitoring and assessment, aiming to help students from the Dominican Republic pass Taiwan's TOCFL Level 3 test within a year.

students to appreciate the essence of Chinese culture and experience Taiwanese customs, achieving the goal of cross-cultural learning and exchange.

Having arrived in Taiwan in early September, the group of 30 students will be counseled, monitored and appraised regularly throughout the course of their studies. The aim is to enhance the effectiveness of students' language learning so that they are capable of attaining Test of Chinese as a Foreign Language (TOCFL) Level 3 proficiency, or above, within one year.

The TOCFL system was created when the Ministry of Education commissioned the Steering Committee for the Test of Proficiency-Huayu to bring together Taiwan's Mandarin teaching and testing experts and jointly research and develop a set of Mandarin proficiency tests. Since the first official examinations in December 2003, the TOCFL system has spread around the world, providing Mandarin learners with a credible system of international language testing.

With TOFCL grades running from beginner and elementary level (Levels 1 and 2) through to advanced (Levels 3 and 4), the goal of our own program is for students to achieve Level 3 in listening and speaking tests after one year. This would mean that students have a vocabulary of between 2,500 and 5,000 words, can read and understand simple articles, and are able to coherently describe experiences and feelings, and analyze and comprehend passages of Mandarin. At this level, graduates of the program should be in a position to really take advantage of their language skills, engaging in a career path requiring the use of Mandarin.

Case Study 3

Postgraduate Medicine Program at I-Shou University



The Postgraduate Medicine Program offered as part of the TaiwanICDF's International Higher Education Scholarship Program will assist partner countries to cultivate general practitioners thanks to Taiwan's excellent medical environment and educational resources.

According to health workforce statistics published by the WHO in 2013, the number of health professionals in all of our partner countries is significantly lacking, especially in Africa. The only exception is El Salvador, which makes it into the top half of global league tables with 16 doctors per 100,000 citizens.

In its World Health Report 2006, the WHO also said that at least 2.3 million more doctors, nurses and midwives are needed to respond to the world's human resource requirements in terms of public health and medicine, and to achieve related targets set out under the MDGs.

This information indicates that there is a significant gap in supply and demand for health care-related human resources in our partner countries. In terms of long-term development in the health care sector, it has been a priority to understand how to assist these partners to cultivate talent.

Cultivating Pioneering Medical Resources Through Innovative, Advanced Medical Education

The Taiwanese government has put much effort into promoting the internationalization of health care in

recent years, including advanced medical technology, medical education and healthcare systems. That's why we have made public health one of our priority development themes, continually organizing short-term training programs for medical personnel and helping partner countries to improve the quality of their health care.

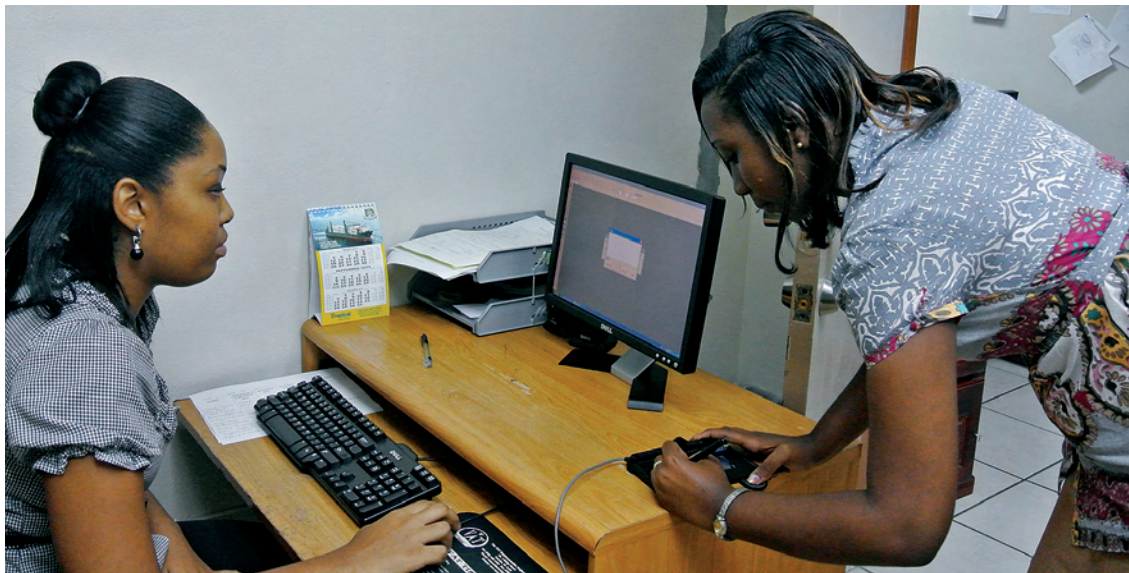
On this basis, and in line with guidelines the Executive Yuan originally laid out for our Healthcare Personnel Training Program – strategic objectives such as promoting the internationalization of healthcare and education, expanding national diplomacy, participating in international health services and developing cooperation in international health care – from this year I-Shou University's School of Medicine for International Students will now offer a medical program to overseas students as part of our International Higher Education Scholarship Program. This is the first time that the TaiwanICDF and a local university have cooperated in organizing a higher education program to train doctors from overseas.

The program will assist partner countries with insufficient medical resources by training GPs, cultivating students with a full range of professional medical capabilities through innovative, advanced forms of medical education. After returning to their home country graduates will be able to contribute what they have learned, acting as pioneers in the provision of care to their compatriots. Helping our partners to build a sound medical and public health environment via such medical assistance will also help us to demonstrate Taiwan's soft power.

The four-year program has been planned and will be taught by teachers accredited by the Taiwan Medical Accreditation Council. The first and second years provide a more basic, integrated medical curriculum, while the third and fourth years include clinical courses that must be assessed by the TMAC. This will ensure that graduates' education has met international standards, providing qualifications accepted for clinical practice and training in other countries.

About 40 students are expected to enroll into the program per year. The first year's intake in 2013 comprised 34 scholarship students from 12 countries: Swaziland, The Gambia, Kiribati, Palau, the Solomon Islands, the Marshall Islands, the Dominican Republic, Haiti, Guatemala, St. Vincent and the Grenadines, St. Lucia and El Salvador.

Information and Communications Technology



According to results announced by the World Economic Forum, for ICT usage in 142 countries around the world for 2011-2012, Taiwan ranked third in the world in Government ICT Usage and fifth in Government ICT Readiness/Effectiveness. This shows to what extent Taiwan's ICT industry plays a decisive role in the international arena.

In ICT we are therefore leveraging Taiwan's industrial advantages and skills in our international assistance and bilateral cooperation projects, adopting a project cycle that meets international standards as part of project implementation, and assisting partner countries to actively develop and utilize ICT across different fields.

1. Focusing on partner countries, designing project implementation together: During the identification, preparation and appraisal phases that take place before project implementation, we research and brainstorm together with our partner countries, clarifying the core issues and performing stakeholder analysis. During project implementation we then work with the task force established by the partner country, providing consulting services and technical assistance while they take on the main tasks involved in implementation. For instance, as part of our ICT Technical Cooperation Project in Belize we dispatched a team to work with personnel at the Supplies Control Unit of the Belize Bureau of Standards, advising them on interdepartmental interviews, overall planning, process inspection,

applications development and capacity building, thereby assisting this partner to become self-reliant and take ownership of the direction of its projects.

2. Providing policy and regulatory advice, laying legal foundations: ICT applications need to comply with legal norms and, in turn, enforce compliance with certain rules, which can not only serve to consolidate the foundations for implementing projects, but also enforce user compliance. The purpose of our ICT Technical Cooperation Project in St. Lucia, for example, is to assist authorities in planning and developing laws and regulations concerning electronic document systems, online signatures and file management, drawing on Taiwan's own development experiences, so that St. Lucia can establish its own legal foundations.

3. Expanding awareness and training, strengthening capacity building: Since awareness and training are important elements in the development of ICT projects, we are working toward enhancing acceptance of ICT among participating units, as well as building capacity among personnel specifically responsible for operations and ICT. As part of the implementation of our ICT projects in St. Vincent and the Grenadines, Belize and St. Lucia, for example, we are promoting a range of training courses and technical capacity building, reducing partners' entry barriers in using the systems introduced through these projects.

Case Study 1

Capacity Building in Using Geographic Information Systems, Central America



TaiwanICDF Deputy Secretary General Morgan C.P. Chao delivers a speech as part of a seminar organized to share Taiwan's GIS-related experiences. Also pictured are Edda Magaly Meléndez (seated at center), CABEI's deputy representative to Nicaragua, and H.E. Ingrid Hsing (seated at right), Taiwan's ambassador to Nicaragua.

Since 1998, we have been using Taiwan's FORMOSAT-2 satellite together with geographical information systems (GIS) in Nicaragua and Honduras, assisting these two partner countries to carry out the sustainable management and monitoring of environmentally and ecologically important areas.

As this cooperation produced outstanding outcomes by making it easier for these two governments to manage environmental changes and respond to disasters and emergencies, we held a Seminar on Using GIS/RS Techniques in Decision Making and the Development of Government Policy. The event, which was organized in conjunction with the Central American Bank for Economic Integration (CABEI), took place in Nicaragua on May 31, 2013.

A Fruitful International Seminar Promoting Taiwanese, Central American Cooperation

A number of dignitaries attended the seminar's opening ceremony, including Nicaraguan Vice President Moisés Omar Halleslevens Acevedo; Dr. Guillermo González, secretary general of Nicaragua's National System for Disaster Management and Prevention; H.E. Ingrid Hsing, Taiwan's ambassador to Nicaragua; and TaiwanICDF Deputy Secretary General Morgan C.P. Chao. In addition to Taiwanese experts, the seminar itself was attended by industrial leaders, government officials and academics connected to the field of GIS and remote sensing (RS)

from Nicaragua, Honduras, El Salvador, Guatemala, Panama, Belize, the Dominican Republic and other countries, as well as by CABEI, Germany's Gesellschaft für Internationale Zusammenarbeit (GIZ), the Pan American Development Foundation and other international development assistance agencies. Altogether, almost 100 participants attended the event.

During the seminar, leading experts from various nations presented lectures focusing on four areas of GIS/RS: land use and development, ecosystem management, urban planning and infrastructure development, as well as natural disaster management and prevention. Following each of these talks, representatives of the Central American governments and agencies shared their thoughts on how to extend the applications of GIS/RS in each of these areas, including the following examples:

■ **Land use and development:** The implementation of the Land Use Planning and Development Act adopted in El Salvador in May 2011.

■ **Urban planning and infrastructure development:** Guatemala's long-term, 20-year K'atun National Planning Strategy in Urban Planning.

■ **Ecosystem management:** The management of the Río Plátano Biosphere Reserve in Honduras.

■ **Natural disaster management and prevention:** The HOPEFOR Initiative signed by Qatar, Turkey and the Dominican Republic, which is designed to strengthen the Dominican Republic's response to natural disasters by integrating relevant military, civilian and government bodies, systems and resources, by enhancing natural disaster response mechanisms and by strengthening data integration and the effectiveness of disaster responses. The initiative will serve as a future guide for data analysis and capacity building activities throughout the Caribbean region.

Building on the fruitful results of the seminar, a number of Central American countries in addition to Nicaragua and Honduras have pledged a desire for cooperation, so we will be extending the scope of GIS/RS applications in the future. We will assist authorities in El Salvador to monitor applications of their Land Use Planning and Development Act and assist in long-term urban planning in Guatemala, as well as cooperate on natural disaster management response systems in the Dominican Republic. This will highlight Taiwan's soft power and skills, and the effectiveness of our aid work.

Environmental Protection



The core of international development is to reduce poverty and promote growth. This can be done by strengthening capacity building, introducing lending and investments, and by expanding infrastructure, assisting developing countries to make more effective use of natural resources and to foster human resources in order to achieve their objectives for national development.

However, development work can sometimes inadvertently cause excessive use of natural resources, leading to environmental degradation and the decline and extinction of species, and if decision-making processes lack sustainable thinking, the fruits of development will not endure. Thus, the question of how to account for both development and sustainability and incorporate environmental factors into development projects is becoming one of the most important items of work among the world's leading development agencies.

Environmental protection is a cross-cutting, multidisciplinary, multisectoral concept, which is usually classified in terms of mitigation, adaptation or promotion. Mitigation echoes the theme of climate change in order to promote the reduction of carbon emissions and biodiversity-based conservation. Adaptation means strengthening the ability to respond to and manage natural disasters, reducing loss of life and property, improving production technology and reducing the depletion of land and resources. Finally, promotion means combining environmental protection and economic growth by applying technical innovation and financial instruments, for instance through green cities and renewable energy.

To meet the different environmental conditions found in different parts of the world, it's also vital to draw up a number of different

agendas for sustainable development. In Africa, for example, when developing the agriculture sector, governments' capacity to manage natural resources for themselves must be taken into account, including the upkeep of farmland and soils, and threats posed by agricultural activities to nature reserves, so as to protect the continent's biodiversity. Activities in Latin America and the Caribbean should match the region's rapid economic growth and urbanization, promoting natural disaster management, the use of renewable energy for low carbon growth and the management of agricultural land in order to account for regional growth and sustainability. For vulnerable island nations in the South Pacific, there is the need to introduce renewable energy so as to reduce dependence on imported fossil fuels. These nations also need to strengthen their capacity to adapt to climate change, for example by conserving mangrove systems in response to the threat of coastal erosion.

Following decades of international development work, the international community has already come to recognize that threats to the environment are threats to development. As such, all of the major international development agencies and donor countries see sustainable growth as an important part of their agenda and have employed a variety of means to ensure the implementation of sustainable development. This has included, for example, the establishment of more green indicators rather than placing the emphasis solely on GDP figures, as well as the establishment of effective partnerships with the private sector, using commercial mechanisms to promote the development of renewable energy sources. The ultimate goal is to promote sustainable development, encompassing economic growth and environmental protection so that the fruits of development do indeed endure.

Case Study 1

Census and Classification of Plant Resources In the Solomon Islands



Collecting plant specimens and performing field surveys is providing data on the state of plants, their life cycles and distribution in the Solomon Islands for use as part of continuing conservation work.

The Solomon Islands, one of our partner countries in the South Pacific, has a wealth of biodiversity. Ninety percent of the country is covered with tropical rainforest and estimates indicate that at least 7,000 species are native to the islands. In recent years, however, the cultivation of cash crops such as palm oil and cocoa has caused mass deforestation leading to a rapid reduction in primary forest cover, threatening this biodiversity.

In view of this, Taiwan's National Museum of Natural Science (NMNS), the Solomon Islands' Ministry of Forestry and Research and Japan's Kochi Prefectural Makino Botanical Garden proposed a project involving a census of plant resources and the compilation of a compendium of plant resources, and in June 2012 signed a tripartite memorandum of understanding covering five years of cooperation. Starting in 2013, this project not only involves a census of plant resources, but is also offering assistance to the Solomon Islands government in carrying out conservation work through support from the TaiwanICDF, the NMNS and Dr. Cecilia Koo Botanic Conservation Center.

Assisting the Solomon Islands in Protecting Natural and Plant Resources

The most fundamental element of any conservation effort is to compile a herbarium and conduct a field survey. After identifying and analyzing specimens, work then progresses to studying the specific appearance of each of the plant species collected, their phonological characteristics – meaning their life cycle, and how this may be affected by climate change – and population and distribution, before moving on to follow-up conservation efforts.

Taiwanese experts accompanied personnel from the Solomon Islands' Ministry of Forestry and Research throughout the country, collecting around

10,000 samples and 3,250 living specimens for preservation in herbaria and greenhouses in both countries, as well as conducting in situ and ex situ conservation work. The Dr. Cecilia Koo Botanic Conservation Center also completed the construction of a new greenhouse in the Solomon Islands, while the NMNS drew up plans to strengthen equipment at the Solomon Islands National Herbarium, and assisted its staff in the digitization of archives, and plant resources maintenance and conservation.

Improving Plant Conservationists' Skills and Capacity

By giving the lead to Solomon Islands conservationists in carrying out the project's field surveys through the country's provinces and by inviting personnel to take part in learning activities and visit Taiwan to attend workshops on biodiversity, the project is providing plenty of training for staff at the Ministry of Forestry and Research, Honiara Botanical Gardens and the Solomon Islands National Herbarium. Such activities have covered the production of plant specimens, digital archiving and live plant cultivation and management techniques, thereby building the Solomon Islands' capacity to conserve plant resources.

Strengthening Botanical Knowledge in the Solomon Islands

A group of Taiwanese experts and representatives of the Ministry of Forestry and Research have jointly formed an editorial committee to oversee the compilation of compendia cataloguing the flora of the Solomon Islands. On completion of this project the committee plans to publish herbaria and flora compendia of Western, Choiseul, Isabel, Malaita and Central provinces in order to enhance public understanding of the Solomon Islands' plant resources and the importance of conservation. The content of these publications will be aimed at a general audience.

Achieving the project's objectives will not only enhance the Solomon Islands' capacity to protect its plant resources, but also conserve its unique species and help to maintain biodiversity. This will raise the country's capacity to keep its environment and biological resources healthy and well balanced, and promote the sustainable botanical development within the country. At the same time the project will expand Taiwan's international visibility and academic status in the field of plant sciences.

Case Study 2

Belize City House of Culture and Downtown Rejuvenation Project

When authorities in Belize performed a wide-ranging review of the country's resources and development strategies with assistance from the Inter-American Development Bank, they concluded that the historic buildings in downtown Belize City are national cultural assets which should be protected. Bearing in mind that the tourist sector is an industry at the heart of Belize's economic development, they therefore took the initiative to plan the Belize City House of Culture and Downtown Rejuvenation Project, and asked the TaiwanICDF for funding.

An initial survey and appraisal work carried out with the Ministry of Tourism and Culture identified the initiative as a priority and confirmed an approach toward conserving historic buildings. However, it was also thought that it lacked supporting measures that would make it difficult to attract tourists, and therefore might not be financially self-sufficient. To address this we arranged consultancy services, bringing in Taiwanese experts and adopting a technical assistance-oriented approach. With its objective of promoting tourism, the project is now focused on cultural site preservation. This will meet Belize's urgent need to preserve its heritage while also responding to the OECD's call for international assistance that advocates environmental protection.

To assist Belize to strengthen project feasibility and capacity to manage project implementation, we then provided funding to support the following activities:

Observation and Exchange

We have invited Belizean officials personnel to attend workshops in Taiwan, to understand, first-hand, how Taiwan has promoted tourism development policies, strategies and practices. These activities, which have focused particularly on community development, have allowed for continued consultation and cooperation with both sides sharing similar ways of thinking and technical platforms. They have also helped to improve the efficacy of technical assistance and the project's future lending operations.

Amendments to Project Proposal

We took a team of Taiwanese consultants to Belize and held a four-day workshop at Belize City's House of Culture, attended by 22 participants from the public and private sectors. After both sides came to an understanding of the project's overall environmental status, discussions proceeded according to three main themes: (1) the scope of the project, including hard and soft components; (2) an overall plan for Belize City's



Many historic buildings in Belize City's downtown area are in urgent need of repair and restoration.

downtown area, and community-based participatory approaches; and (3) potential solutions for building and managing project systems.

After receiving this technical assistance, the Belizean government provided us with an amended project proposal containing revised loan applications involving three major changes. Firstly, in terms of project area and beneficiaries, what had been originally conceived as the restoration of a single building had been expanded to cover the development of the communities in and around the city's central historic district. Secondly, the project's funding allocation for hard and soft components, such as oral history recording and community participations, had been justified, and the proportion of soft components had been increased in order to integrate renovated buildings with the surrounding public space. This should yield better benefits for tourism and ensure the sustainable use of the buildings. Finally, the proposal emphasized interaction between the project and the local community. Local residents' social and economic circumstances should now be improved through the implementation of the project.

Training

Based on experiences learned from the above-mentioned cooperating activities, our Taiwanese consultants had gained a clearer picture of Belizean counterparts' capacity to implement the project, as well as their training requirements. With several rounds of consultations having resulted in optimal training times, trainees and teaching content, we then dispatched another consultancy mission to Belize for a four-day course providing a mixture of theoretical and practical content. The 30 participants included the faculties and students of the local university, officials from the Ministry of Tourism and Culture and the National Institute of Culture and History, and architects, cultural and heritage workers and community residents.