Regional Cooperation Projects

#### **Regional Cooperation Projects**



In recent years, growth in sub-Saharan Africa has achieved its highest level since the 1970s. Nonetheless, this should not obscure the gaping disparity in levels of development among the region's nations. Based on data released in conjunction with the UN's MDGs, Africa still has enormous room for development. The region - especially high-debt countries - still faces the problems of poverty, hunger, disease, and insufficient infrastructure, and the combination of these factors continues to cloud development. The TaiwanICDF, in an effort to help Africa emerge from the poverty trap, carries out a variety of projects that provide financing and investment to improve infrastructure, assist in agricultural development, improve ICT capabilities, provide medical and health assistance, and train high level human resources. All these projects take into consideration economic growth and social equality issues, and are executed with the ultimate objectives of eradicating poverty and ensuring sustainable growth.

# Increasing Food Production and Upgrading Farming Villages

UN statistics indicate that 41.1% of Africa's population in 2007 lived on less than US\$1 a day, and that two-thirds of these people live in rural areas.

Agriculture plays a major role in many African economies, and has accounted for about one-third of growth in Sub-Saharan Africa over the past 15 years. However, inadequate infrastructure and underdeveloped farming skills result in frequent shortages of staple foods. Meanwhile, climate change has seriously impacted farming output. As agricultural growth is strongly linked to other economic sectors, it is often the lead sector for overall growth in developing countries. How to increase agricultural growth and achieve environmental sustainability have therefore become key questions in the region.



▲ Members of the technical mission instruct farmers in the use of machinery for rice cultivation.

The agriculture sector in Africa has lacked infrastructure, capital and modern techniques. The success or failure of crops and harvests is largely reliant on location and weather. Many farms lack a diversity of products and output is limited. The primary objective of the TaiwanICDF's activities is to increase agricultural growth and rural incomes in the region. To this end, the TaiwanICDF provides capital as well as technical assistance to help nations raise their level of self-sufficiency in staple foods. In addition to creating a beneficial production environment, the TaiwanICDF provides post-harvest processing technology in key agricultural commodities to help raise the value of primary products. This offers farmers an opportunity to sell excess output on a commercial basis, boosting their incomes and generating economic activity in rural villages.

Farmers have a strong need for microcredit to improve production and commercialize their operations. The TaiwanICDF cooperates with local FIs that have successful experience in such operations. These loan programs not only help expand the grassroots banking services network, but also increase opportunities for smallholders to obtain formal access to financing. The TaiwanICDF also cooperates with international institutions on financing projects to construct the infrastructure needed for farming operations. The construction of irrigation facilities enables farmers to cultivate the land even in the dry season, increasing agricultural output.

The technical missions stationed in Africa introduce high yield varieties of various grains to farmers. They help farmers to raise efficiency, reduce costs, and conserve natural resources. These production methods increase quantity and improve quality. Technicians also help establish and provide training for farmers' organizations, strengthening the operation and management of farms, as well as enhancing common production-transportation functions. Assistance is extended to improve postharvest marketing functions that cover grading, processing, packaging and transport, and expand

# Lower Usuthu Smallholder Irrigation Project in Swaziland

Although its GNI per capita means Swaziland is ranked as a lower-middle-income economy, the wealth gap is enormous, with more than 40% of the country living in absolute poverty. Nearly three-quarters of the people engaged in agriculture live on infertile state-owned land. Crops cultivated on this land account for only 15% of the country's GDP. In order to assist small-scale farmers in improving the fertility of the land and promote agricultural development, in 1996, the Swazi government began working on plans for a substantial irrigation project in the south of the country. Feasibility studies were conducted, and in 2002, a request was made to the government of Taiwan for assistance with the proposed project. Thanks to loans and technical assistance from the TaiwanICDF, the African Development Bank, and the International Fund for Agricultural Development these plans are now a reality. The Arab Bank for Economic Development in Africa, and the European Development Fund are also involved in this project. Construction of an irrigation system began at the end of 2005, and was scheduled to be completed in 2008.

The project focuses on more than just the establishment of irrigation systems, seeking also to improve agricultural output and address urgent sanitation problems facing the area. In the terms of output, as well as enhancing security for the storage of grain, increasing the commercial value of crops is the main focus of the project. The project's success will hinge on the degree of community participation. Most communities operate on a tribal level, with chiefs providing traditional leadership. Some villages are now in transition, and the implications of this system of local government need to be considered to help ensure the success of the project. Meanwhile, the health situation in Swaziland is precarious.

Along with the resettlement of villages to new communities, access to clean drinking water and sanitation facilities, and the establishment of medical clinics are urgently required. This will help to stem the incidence of malaria, cholera, and other water-related diseases that may arise with the introduction of irrigation and water-development projects.



# **Rice Production Projects in Burkina Faso**

Rice is Burkina Faso's main staple food. Insufficient domestic production, however, means that each year Burkina Faso must spend enormous amounts of foreign exchange to import staples. The Technical Mission in Burkina Faso is working to assist the local government in resolving this situation. These projects are devoted to developing farmland in Bagré. Roads, canals, bridges, and irrigation and drainage systems are being constructed. In addition, high yield varieties of paddy rice are being introduced. Farmers are receiving production assistance to boost output of paddy rice. Meanwhile, the technical mission is also selecting appropriate areas for upland rice cultivation, taking advantage of water received during the rainy season. This two-pronged effort is helping Burkina Faso achieve self-sufficiency in rice output.

The technical mission is also working to promote more



business markets. In The Gambia, for instance, technicians have taken advantage of tidal movements to irrigate crops. The technical mission has carried out extension work of tidal rice paddies in low-lying or marsh areas. This has significantly increased the area available for cultivation, reducing the nation's reliance on imports of grain. In Swaziland, meanwhile, the technical mission has provided assistance to corn production and marketing teams. It also offers technical assistance in grinding and processing. The corn production and marketing systems are supporting community development. The TaiwanICDF is also assisting São Tomé and Príncipe in the operation of composite grain and chicken farms. Corn and other feeds are grown to provide poultry feed, thereby reducing imports of raw materials and other related products.

specialized cultivation and marketing models to take the place of traditional family-based production models. This is raising farmer incomes and boosting local economic activity. Improved varieties of rice, better production technology, and the expansion of markets are helping to ensure sustainability of paddy and upland rice production. A series of varieties are introduced, experimentation and acclimatization are undertaken, and follow-up promotion, extension, on-farm advisory, and marketing consultation are then carried out. A rice seed system is being put into place to help farmers produce seed. Meanwhile, improved cultivation and management techniques are helping to raise output. The technical mission is helping to establish farmers' organizations to hasten the exchange of technology and knowledge, and to share resources. The TaiwanICDF is also providing assistance in the establishment of grinding factories. This facilitates the processing, packaging and sales of white rice.

As of the end of 2007, the technical mission had developed 1,800 hectares of land for paddy rice, allowing for a biannual output of 17,750 tons. Meanwhile, 6,024 hectares of land for upland rice has been developed. With each hectare producing about three tons of rice, total output from this land comes to about 16,288 tons. The rice grown in the Bagré area is being sold under the Bagré Riz Frais brand, which has had an enormous impact on boosting incomes. This project has improved the volume and quality of rice in Burkina Faso, enabling that nation to reduce grain imports and save foreign exchange. The commercialization of production has also generated jobs, fostering development of farming regions and setting the foundation for sustainable operations.

# Strengthening the Medical and Health Care Platform

Poverty and insufficient food sources have resulted in malnourishment among one-third of all Africans. As well as a lack of sanitation and a shortage of medical resources, lethal diseases such as malaria and AIDS are prevalent. This in itself presents a serious barrier to the region's development. Recognizing primary health care as a fundamental requirement for both social and economic development, the TaiwanICDF focuses on raising the quality of medical services and sanitation in Africa.

To realize these objectives, the TaiwanICDF has permanent medical missions stationed in Africa, providing support services to hospitals and medical centers throughout the region. Experts also offer advice on how to improve the medical networks and management systems in partner countries. Clinical



Pharmacists with the Mobile Medical Mission in The Gambia explain prescriptions to locals.

demonstrations and training are held for local medical care personnel, regional medical networks are gradually being set up, and public health education campaigns are also being carried out, helping to raise the quality of health care. For instance, medical missions are stationed in Burkina Faso's CHR de Koudougou's L'Hopital de l'Amitié and in São Tomé and Príncipe's Centro Policlinico de Agua Grande. Local medical care personnel participate in various training courses to hone their expertise. In addition, the missions play a vital role in various assistance projects tailored to the needs of the nations in which they are stationed. The Medical Mission in Burkina Faso visits health clinics in remote areas to provide grassroots medical services. Meanwhile, the mission in São Tomé and Príncipe oversees the Malaria Prevention Project, which is helping to halt the spread of malaria, one of the top 10 causes of death, in this nation. In addition to the permanent medical missions, the TaiwanICDF also dispatches highly dynamic MMMs to the region for brief periods. These missions offer medical services throughout partner countries, and mission members provide clinical demonstrations and instruction. The MMMs visit rural areas and districts that the permanent missions cannot reach to offer medical treatment to the needy. MMMs are also able to provide humanitarian assistance at a moment's notice in the event of natural disasters or calamities.

# São Tomé and Príncipe Malaria Control Project

Malaria is one of the leading causes of death in São Tomé and Príncipe. In 2004, the TaiwanICDF commenced efforts aimed at helping the island nation carry out a comprehensive malaria prevention drive. Under the project, appropriate methods to control the spread of malaria-carrying mosquitoes have been introduced and treatment has been offered to residents, reducing the incidence and the number of deaths from malaria.

As of the end of 2007, nationwide indoor residual spraying had been completed three times. Data tabulated by health agencies in the country indicates that the number of children under the age of nine contracting the disease has fallen by about two-thirds. Stopping the spread of malaria, however, will not be sufficient to reach the objective of eradicating the disease in São Tomé and Príncipe. Health authorities are closely monitoring any possibility of malaria being brought in from overseas. The Medical Mission in São Tomé and Príncipe is helping local workers to complete a second survey of malaria carriers on Príncipe. Any person suspected of having malaria receives drugs to treat the disease. After treatment, the patients are screened again to make sure they test negative. These efforts are ensuring the total eradication of the disease.

The project is also overseeing the establishment of the nation's first molecular biology laboratory in 2008, which will help to improve monitoring and analysis of the resistance of the malaria parasite to various drugs. The medical mission will



provide laboratory technology, and training in hematology, examination of blood samples, and diagnosis of malaria parasites. This will hone the expertise of local health care personnel in diagnosing and treating the disease, and improve the accuracy of microscope examination and the success of treatment and therapy. In the future, the TaiwanICDF will continue to cooperate with local hospitals and disease control agencies, assisting São Tomé and Príncipe in preventing the spread of malaria-carrying mosquitoes, carrying out screening, monitoring therapy for patients, and improving the disease reporting network.

# **Project to Provide Technical Assistance to Computer Certification Center**

The focus of Malawi's information ministry is to reduce the digital divide and promote sustainable development via the use of ICT. To help the Malawian government achieve these objectives, in 2000, the Technical Mission in Malawi established computer courses on the use of software and network applications, under the Vocational Training Project. These courses were aimed at cultivating computer experts in the nation. Starting in 2004, the technical mission assisted the ministry in setting up a used computer recycling center. Technicians repair the machinery, after which it is sent to remote communities and elementary and junior high schools, enabling the residents and children in these areas to learn about computers.

In an effort to further assist the Malawian government in promoting information education and improving the capacity of its populace to use ICT, the TaiwanICDF in 2007 helped Malawi's Ministry of Labor establish the country's first national computer certification center. This is being carried out in tandem with the introduction of a computer certification exam system by the nation's vocational training and skills certification agencies. In addition to establishing the hardware and systems needed, the TaiwanICDF and Malawian government agencies are working together to create a computerized question database, as well as cataloging questions and instructional materials. Systems are being designed to train people to administer the tests, as well

In addition to providing long- and shortterm medical services in partner countries, the TaiwanICDF also selects local health care personnel with outstanding potential and invites them to Taiwan to participate in the IHCSA's Healthcare Personnel Training Program. Visiting medical personnel are dispatched to hospitals throughout Taiwan for three months of intensive clinical training in their respective specialties. In addition, participants make visits to various medical centers where they are able to interact with their Taiwanese counterparts. They also are prepped in hospital management and receive briefings on Taiwan's experience and methods in eradicating malaria and other infectious tropical diseases. Meanwhile, Taiwan's medical resources and development experiences are explained, helping to augment the expertise of the visitors and providing them with the fundamentals they need to map out and establish medical systems back in their native countries.



as maintenance technicians. Initially, personnel from Taiwan will provide assistance in running the center, while over time, operations will be passed over to locals.

The computer certification center is the first center of its kind to be established by the Malawian government. In addition to its function of certifying local technicians, the center will gradually be able to provide international certification, becoming an impartial certification authority. The establishment of the center and related procedures will not only enhance computer expertise in Malawi, but also hasten the improvement of administrative efficiency in certification testing.

In response to the major global development demand for improved health care, the TaiwanICDF will continue to address the topics of malaria prevention, diagnosis, treatment, and prognosis. It will continue to assist partner countries in the region in improving their sanitation environments, strengthening medical facilities, and raising health care standards, thereby inhibiting the spread of socially and economically costly diseases. An improved medical environment provides the foundation for a nation's sustainable development.

# Raising ICT Abilities and Creating a Digital Society

The digital divide between the information-poor and the information-rich is of increasing worldwide concern. ICT enables a person to obtain knowledge in a speedy manner, raising managerial and production efficiency. ICT also enhances market liberalization, improves governance, and sparks economic growth, which in turn helps achieve the objectives of reducing poverty and imbalances.

ICT advances in Africa are gaining momentum. Thanks to assistance from the international community and the private sector, ICT is creating many job opportunities in Africa, bringing with it economic growth. However, if we compare the situation in Africa with ICT development in other regions, the picture is not as bright. Africa is home to 13.9% of the world's population, but only 6.2% of mobile phone usage. Meanwhile, only 3.4% of the continent's people have Internet connections, and broadband users make up a mere 0.4% of the populace. Aware of this problem, the international community has made reducing the digital divide one of its foremost goals for the continent. On the one level, assistance is being provided to countries to create ICT infrastructure. On another, efforts are being made to balance ICT development among regions by enabling some to leapfrog entire stages of development. Moreover, governments throughout the continent are receiving assistance in bringing remote areas into the national, regional, or even global economic network, in order to create equal opportunities in ICT. These efforts are turning the digital divide into a digital opportunity, spurring economic and social development among African countries.

In response to international assistance trends, the TaiwanICDF makes use of Taiwan's advantages in the ICT sector, as well as the its developmental experience in promoting an information society. The organization has initiated projects to narrow the digital divide and help governments establish various computer and information systems. The TaiwanICDF also supports partner nations in establishing digital opportunity centers (DOCs) in villages and schools. This helps to shrink the gap between rural and urban areas, and helps people connect with the outside world, which in turn aids competitiveness among the populace. Meanwhile, Taiwanese technicians stationed in partner

# **International Higher Scholarship Programs**

The TaiwanICDF initiated its International Higher Education Scholarship Programs back in 1998, aiming to help nurture the high-level manpower needed by friendly developing countries. The TaiwanICDF and Taiwan's top universities cooperate in organizing English-language undergraduate and postgraduate degree curriculums. Outstanding government officials from friendly nations who have the potential to become future leaders, along with top-notch students from underprivileged backgrounds, are offered full scholarships in Taiwan. As of the end of 2007, 21 curriculums were on offer at 13 local universities. Each year, nearly 100 new students are recruited into the program.

According to statistics, 81 students from eight African nations (Swaziland, Malawi, Burkina Faso, The Gambia, Ivory Coast, Liberia, Chad and Senegal), have come to study in Taiwan over the years. In order to increase the number of African scholars, the TaiwanICDF dispatched staff to The Gambia, Malawi, and Swaziland to introduce the program and recruit students in March 2007. Students who had previously obtained degrees in Taiwan were invited to share their experiences with local officials responsible for selecting candidates, as well as with local universities interested in international education and exchange programs. People attending these introductory meetings came to have a better understanding of the scholarship program and the various courses of study. At the same time, the TaiwanICDF was able to carry out a survey on the needs for high-level human resource training in the region, which will be valuable in developing new curriculums in the future.

A total of 49 African students had completed their studies and returned to their native countries by the end of 2007. Thirtytwo students are still working toward their degrees in Taiwan, while 24 new students matriculated in 2007. These numbers show that the recruitment drive has paid off. Surveys also indicate that the region has a strong demand for technical and vocational manpower. This is an area in which a future course of study may be designed.





▲ Students take part in an ICT mobile computer workshop in Swaziland.

nations, and short-term volunteers, have helped train over 1,000 seed teachers so far. In addition, young people looking for employment are being trained as computer technicians. These education drives help to build the human resources foundation needed to support progress. In Swaziland, for instance, the TaiwanICDF was responsible for establishing the nation's first wireless Internet center. Locals have also been trained to become teachers and computer experts.

The TaiwanICDF is also utilizing Taiwan's development experience in tailor-made system and software design to help raise national competitiveness and government administrative efficiency in allied nations in Africa. Computer systems have been installed in 15 government agencies in The Gambia, Swaziland, São Tomé and Príncipe, Burkina Faso, and Malawi. This includes the establishment of national Web sites (government portal sites), improving organizational management within governments (e-mail systems), and boosting governance efficiency (skills certification and agricultural information systems). The TaiwanICDF has also provided opportunities for high-ranking government officials from allied and friendly countries, along with students from those nations, to come to participate in technology management workshops and study for master's degrees in Taiwan. Assistance has also been provided to partner governments in drafting comprehensive information regulatory systems, helping to raise service quality among government agencies and increase information transparency.

# Developing a Vocational Education Foundation

Education is one of the essential elements of the TaiwanICDF's poverty reduction strategy. The Higher Education Partnership Forum held in 2004 focused on widening access to quality higher education and establishing a global higher education environment. Forum participants called for a threefold increase in the number of highly-educated individuals in Africa by 2010. Meanwhile, a World Bank report stressed that in the face of globalization, market economies indirectly spark educational reform. The report also reinforced the notion that vocational education and technical training are important means of improving the livelihoods of Africans and increasing employment opportunities.

The TaiwanICDF drafts human resource training strategies and methods based on the developmental needs of partner countries in Africa. The organization takes into consideration the manpower training trends within the international community, and it utilizes Taiwan's abundant experience in the fields of vocational education and higher education. The TaiwanICDF holds short-term workshops in Taiwan, as well as on-the-job training projects in partner countries. This helps to cultivate the individual abilities of people in these countries, and works toward the goals of promoting employment opportunities and underscoring economic development.

The economies of most of Taiwan's partner countries in Africa are dominated by farming and fishing, food processing, traditional handicrafts, and tourism. These nations rely on direct investment from foreign enterprises, and imported technology for industrial development. As opportunities to receive technology training are rare, local enterprises are at a competitive disadvantage. A lack of skilled manpower, also makes it difficult for these companies to move up the industrial ladder and promote higher levels of technology. To address these deficiencies, the TaiwanICDF – as part of its financing projects – hires Taiwanese consultants in the field of education to examine the education policies and vocational training systems of partner nations. With assistance



One of the core topics in creating an information-based society is reducing the digital divide.

from officials in those countries vocational system enhancement plans are set up. In some cases, Taiwanese experts are dispatched to vocational institutes in partner countries to engage in institutional capacity building, and assistance with upgrading the training of labor forces. This creates the groundwork for vocational education systems to work in tandem with the needs of the industrial sector, helping to boost recruitment rates and industrial competitiveness.

The TaiwanICDF has designed programs that combine Taiwan's higher education resources with fields in which Taiwan has a high level of expertise. It provides full scholarships to outstanding African students to pursue undergraduate and postgraduate studies in Taiwan. Most African students coming to Taiwan decide to major in agriculture- or technologyrelated fields, and in their studies the majority examine the central development issues facing their countries. For example, a comparison of SMEs in Taiwan and Swaziland has been carried out. Elsewhere, one student examined marketing channel management of agricultural produce with reference to tomatoes in The Gambia. Practice and theory are thus combined, enabling Taiwan's methods and experience to support development in partner countries. Graduating students not only return to their native countries prepared to serve as officials in economic and social planning agencies, but also serve as an important bridge in promoting international cooperation with Taiwan.

The focus of on-the-job training is to enable an industry to maintain its competitiveness. The TaiwanICDF works in conjunction with the industrial development strategies of partner countries. It dispatches technical experts to provide advisory services and technical training, thereby introducing new technologies and management methods. Educational materials are tailored to the needs of each country. The TaiwanICDF's goal is train local experts who are able to provide training to others. The TaiwanICDF also invites government officials and representatives from the industrial and academic sectors in partner nations to attend short-term International Workshops in Taiwan. In 2007, the most popular workshops focused on the areas of media development, medical management, and women's development.

#### **Regional Cooperation Projects**



# Latin America and the Caribbean continued to take advantage of the globalization trend and achieved outstanding economic growth in 2007. Even with the economic impact caused by the sub-prime mortgage crisis in the U.S., the Economic Commission for Latin America and the Caribbean (ECLAC) noted that growth in the region in 2007 still reached 5.6%. Meanwhile, the rapid industrial development of a number of emerging countries in Asia has triggered a fundamental change in the structure of global supply and demand. This is causing the Latin America and Caribbean region, which is a large exporter of raw materials, to play a key role. It is expected that this region will continue to benefit in the coming years from changes in global supply and demand.

While the region is posting rapid economic growth, sits on an abundance of natural resources, and has a huge labor pool, it still faces a serious disparity in wealth and inequality among social classes. Eight percent of the region's inhabitants, translating to 47 million people, still live in extreme poverty. Alleviating poverty and social inequality remain the foremost development goals within the region. The TaiwanICDF's cooperation strategies in the region emphasize the strengthening of industrial technology and the upgrading of labor force. Efforts are aimed at strengthening the international competitiveness of countries within the region. This includes providing vocational education and training for various industries, as well as using technology and innovation to further leverage the impact of assistance. The ultimate goal is to help reduce poverty in the region and promote social equality and sustainable economic growth.

### **Agricultural Enterprises**

More and more nations throughout Latin America and the Caribbean are signing free trade agreements (FTAs) with the U.S., enabling these countries to obtain tariff-free access to the U.S. market. ECLAC has discovered that the implementation of FTAs between the U.S., and Central America and the Dominican Republic significantly increases the rate of investment in the Latin American region. However, these arrangements are not without problems. On the one hand, countries that have signed FTAs have an opportunity to take advantage of their low labor and land costs, along with their proximity to the U.S. to exploit markets in North America. On the other, advanced technology and products from the North American market can deal a significant blow to local industries.

# Papaya Exports from Guatemala's Peten Region



Guatemala's northern Peten Province, has been kept free of the Mediterranean fruit fly, and the area boasts a climate suited to the cultivation of papayas for export. In order to help Guatemala take advantage of the Central American market as well as opportunities in the Free Trade Area of the Americas, the TaiwanICDF initiated a papaya export project in the region in 2006. The Technical Mission in Guatemala instructs farmers in cultivation techniques as well as international trade and marketing skills. This is helping Peten become an important area for papaya cultivation and exports.

Peten also happens to be the most impoverished area of Guatemala. The majority of inhabitants are Mayan Indians, who depend on farming for their livelihood. Traditionally, products

The TaiwanICDF primarily focuses on upgrading agricultural projects in the region to improve market competitiveness. These projects are designed to fit trends in international trade and link the region's favorable geographic locality with growing domestic demand. Market-oriented policy is adopted in order to work out a production plan. At the same time, higher levels of agricultural technology, modern marketing management skills, and financing access are introduced.

The TaiwanICDF adopts a number of concrete methods in providing assistance. First, it selects appropriate items to be cultivated based on the market demand. It then provides loans to farmers, enabling them to purchase and improve their production equipment and acquire working capital. The TaiwanICDF also provides technical guidance to help farmers effectively raise their output. For instance, in El Salvador assistance has been provided to put salt fields

go through brokers before reaching the consumer, meaning the profits for farmers are quite limited. The papaya project includes the creation of a demonstration farm and a packaging plant, and the farmers are assisted in switching from other crops to cultivating papayas. The papayas they grow are sold directly to the consumer, alleviating them of the burden of market margins taken by brokers. This increases the profit that farmers get from their products. The farm, which covered 100 hectares initially, is expected to be expanded to 150 hectares in 2009. All cultivation, harvesting, grading and shipping procedures conform to the quarantine requirements of the United States Department of Agriculture (USDA). The first crop of papayas was successfully exported to Guatemala's neighbors in Central America in October 2007, laying the groundwork for exports to North America. Construction of the post-harvesting packaging plant began in April 2007. The plant was set to be fitted with machinery in early 2008. Trial production and employee training was then to be then carried out, followed by formal operation.

The demonstration farm and packaging plant have so far created in excess of 100 job opportunities. Over the next five years, the technical mission will assist farmers in forming papaya cooperatives. With increased farming and packaging experience under their belts, as well as adherence to U.S. quarantine requirements, Peten's papaya farmers are expected to establish a reputable name for their produce in the North American market. By maintaining a steady supply of papayas to the market, farmers in Peten will begin to enjoy the benefits brought about by international trade.

to use as an area to farm salt-water shrimp, which have a high market value. The TaiwanICDF also supports farmers in Paraguay in selling vegetable seedlings to Brazil. As farmers become familiar with production technology and expand the scale of production, the TaiwanICDF then assists with the formation of



▲ The Technical Mission in Paraguay provides assistance in business models for growing seedlings.

cooperatives or production and marketing teams. This helps reduce production costs via joint procurement of various goods and enables farmers to reach economic scale. Cooperatives, or farmers'associations, are also assisted in efforts to transform into agribusinesses, further expanding the scale of production. Marketing and operational guidance is offered to help the cooperatives, or associations, exploit domestic and international markets. For example, Nicaraguan rice farmer cooperatives have been supported in the expansion of paddy rice, upland rice, azuki beans and black beans on a commercial basis. Under the national guaranteed purchase price system, those products have helped to stabilize profits. The TaiwanICDF has also helped Guatemalan farmer cooperatives work together to produce fruits that meet the USDA's quarantine standards. Financing has been provided to the cooperatives to establish a grading and packaging factory so that fruit can be directly exported.

# Promoting Private Sector Development

The private sector accounts for 90% of all economic activity in the region. Given the inextricable relationship between the sector and economic development, the TaiwanICDF provides loans and technical assistance to allow local enterprises to obtain financial services, improve technology, and bolster

# **Specialized Financial Intermediary Development Fund**

According to World Bank statistics, remittances from migrant workers from Latin America and the Caribbean to low- and medium-income household accounts in their native countries in 2005 were over double that of the ODA to those nations. These remittances have been shown to have a clear impact in terms of reducing poverty, boosting economic growth and investment, and sparking banking development. In an effort to ensure these huge inflows of capital effectively assist in promoting economic growth and alleviating poverty, in 2006, the TaiwanICDF and the IDB's Multilateral Investment Fund (MIF) created the Specialized Financial Intermediary Development Fund. In 2007, the Pilot Project to Create a Housing Finance Market for Transnational Families between the U.S. and El Salvador and a similar project for Ecuadorian migrants were introduced.

El Salvador has the highest population density in Central America. According to the "UNDP Brief of Human Development El Salvador 2005," about 30% of people born in El Salvador have migrated overseas, and approximately half of those have lived in the U.S. for more than 10 years. Surveys show that about 60% of Salvadorans who have obtained American citizenship and work in the U.S. are willing to purchase homes back in El Salvador. However, they have been unable to do so due to restrictions associated with carrying out credit checks on borrowers as well as difficulties in processing transnational mortgages. The project introduced by the TaiwanICDF and the IDB provides a new financial product to meet the needs of Salvadoran workers in the U.S. seeking mortgages in their native country. As long as applicants meet income and credit standards, they can take out a mortgage in the U.S. to purchase a home in El Salvador. This financial tool introduces an innovative mortgage loan product to the Salvadoran community, attracting a greater portion of workers' remittances into housing investments, mobilizing migrant savings through the involvement of formal FIs, and promoting capital accumulation and asset building among Salvadorans. It also can also help support family businesses or MSEs, as these often operate from residences. The ultimate result is an improvement in the lifestyles of local residents and the promotion of economic growth.

In 2006, remittances into Ecuador from its nationals working overseas amounted to about US\$2.9 billion. This was the second largest source of foreign exchange for the country, next only to income from crude oil exports, and it amounted to 6.4% of GNP. A similar remittance project was introduced for Ecuadorians who seek to purchase homes back in their native country. The project is expected to spark development of the local housing market and to increase the proportion of transnational mortgages among participating FIs, helping them to hone their mortgage management abilities. The program also sees FIs providing services and products to Ecuador's poorest households, helping these families to boost their incomes and to improve their quality of life.



industrial competitiveness.

The TaiwanICDF has long carried out private sector financing projects in the region. Originally focusing primarily on SMEs, these projects have been expanded to include microenterprises and individuals. The medium- and long-term lending that is provided helps to address the problem of insufficient funding facing many businesses and entrepreneurs. As well as providing the diversified financial services that enterprises need, the TaiwanICDF emphasizes increasing the capacity of FIs. The TaiwanICDF also works with international development institutions to help nations in the region expand the capacity of their private sectors. These institutions have a deep understanding of the social and economic environment throughout these nations, and possess a comprehensive cooperation network. Through this cofinancing system, suitable financial products for the region are introduced. For instance, new products have been



▲ The TaiwanICDF and international strategic investment partners have opened the microcredit institution MCN in Haiti, and instruct bank employees in how to assess the ability of borrowers to repay loans.

designed to help people working overseas remit funds back to their native countries to purchase homes, connecting the microfinancing to their relatives. In this way, transfer remittances function as a tool for development. The organization also manages and

#### **Development of the Dominican Republic's Furniture Industry**



The Dominican Republic is one of the nations in the region that most emphasizes industrial development. In an effort to assist this nation in developing industrial technology, the Technical Mission in the Dominican Republic has singled out wood furniture, which is extremely popular among locals, as an industry that should receive guidance and assistance. The technical mission began engaging in cooperation with PROMIPYME, ASONAINCO, and ITLA in 2000. The production technology assistance provided has helped to raise the competitiveness of the local wood furniture industry.

Most furniture makers in the Dominican Republic lack production technology and equipment. In addition, they generally focus on the domestic market and make heavy and bulky products that do not meet the practical or comfort needs of customers. In recent years, imported furniture has taken up

an increasingly large share of the domestic market, causing concern among local furniture makers about their future. The Industrial Service Mission stationed in the Dominican Republic and ITLA's Vocational Training Center have joined efforts to strengthen the design ability of Dominican furniture makers, enhancing the diversity of products, boosting quality and increasing the competitiveness of locally made products against imports. The agencies are also working to make best use of a regional FTA to expand exports. Taiwan has donated computers to assist in the use of CAD/CAM systems, and courses have been held to train people in the use of the systems. The focus is on training people working in the furniture industry as well university graduates with degrees in industrial design, honing their abilities in design aesthetics and structural models, and improving the quality and durability of furniture. Experts from the Industrial Service Mission also visit local furniture factories to provide on-site diagnostic services, offering suggestions on how to improve the production process and quality.

Through training courses and factory advisory services, the Industrial Service Mission helps to address the challenges faced by students and companies, providing systematic suggestions and guidance. Locals have praised the TaiwanICDF's efforts, saying that the sharing of technology and experience has helped to effectively raise the expertise of those involved in the industry. Furthermore, cooperation with the academic sector is helping to produce seed instructors, establishing a comprehensive basis to improve the design and manufacturing ability of the Dominican furniture industry. oversees various investment and lending projects that aim to improve the institutional capacity of local FIs to provide better, more sustainable financial services to micro and small enterprises (MSEs).

The TaiwanICDF also provides personnel for technical assistance according to its assessment of local needs. Industrial experts are sent to schools and vocational institutes in partner countries to provide training in production technology, management, and marketing. Experts and consultants also visit factories to provide advisory services. These activities help to train the highly skilled manpower needed by the SME sector throughout Latin America and the Caribbean. Projects also promote the training of seed instructors, helping to boost the competitiveness of SMEs. For example, the Taiwan Investment and Trade Service Mission in Central America, Guatemala's AGEXPRONT, and Istmo University, have jointly held product design seminars, assisting companies in Guatemala in raising product quality. In addition, an e-commerce workshop was held, and training was provided to nurture SME managers and technicians in 2007.

While the region's economy continues to grow, the majority of countries in Latin America and the Caribbean are still in the midst of social transition. Improving the market mechanism of the private sector and addressing infrastructure problems are areas in which the TaiwanICDF continues to cooperate with international development institutions. Taiwan's private sector, and resources from the public sector have been brought into these efforts recently, which is expected to further contribute to the process of economic and social development of the region.

# **Raising ICT Capacity**

ICT has led to a digital revolution, which is presenting unprecedented growth opportunities for developing countries. However, the lag in infrastructure, human resources, legal framework and the commercial utilization of ICT in developing countries has led to an imbalance in ICT resources and a resulting digital divide. Research has shown that ICT has played an increasing role in the economies of advanced and emerging nations in recent years. Over the past 20 years, countries that have exhibited the highest growth are generally those that have had high levels of exports in ICT products. In light of this, the TaiwanICDF incorporates ICT into its development and assistance projects, to help partner countries in the region to reduce the digital divide and hasten social and economic development.

One of the means through which the organization supports its partners in this area is the establishment of DOCs, which provide a means for the local public to familiarize themselves with ICT, and promote exchanges of information and knowledge. The TaiwanICDF also backs partner nations' efforts to improve ICT education by establishing computer networks and developing educational software, bolstering the computer knowhow of students and teachers in vocational schools



The Taiwan Investment and Trade Service Mission in Central America shows students how computers can be used in furniture design.



▲ The TaiwanICDF develops vocational education software, with curriculums available in electronics, basic electrical engineering, and machinery.

and institutes. The quality of education is thereby improved, helping to nurture the technicians needed by the industry in these countries. One illustration of this is the organization's ICT drive in Honduras, where financing is provided to assist 228 elementary and junior high schools in the acquisition of hardware and software, and with the establishment of network systems. In 2007, the TaiwanICDF completed development of e-learning simulation software for basic subjects in electronics, electrical engineering, and machinery, with versions in English, French, and Spanish. This software, in conjunction with vocational education projects administered by the TaiwanICDF in the region, is supplementing the teaching and learning process.

The TaiwanICDF supports its partners' efforts to use ICT to underpin development. The organization

has implemented government computerization projects in the region, fostering portals and access for public information. This helps to boost government service efficiency and performance. Tourism is a dominant part of economies in the Caribbean. Computerizing information and services helps to improve tourism management and facilitate promotion and marketing. The TaiwanICDF has helped the governments of St. Kitts and Nevis, St. Vincent and the Grenadines, Belize, and St. Lucia design information systems to meet their needs. This includes the establishment of network infrastructure, national information centers, and government portals. Other projects involve the planning of e-mail systems for government agencies, and the creation of databases for the public sector and information management systems for police administration and immigration bureaus.

### Workshop on Environmental Monitoring and Natural Disaster Management

The employment of geographic information systems (GIS) and remote sensing (RS) technology in national land use planning, environmental monitoring, and natural disaster management is common in developed nations. Such technology is, however, relatively unfamiliar to many of Taiwan's partner countries. The use of GIS and RS is invaluable in providing assistance to places that are threatened by hurricanes, or developing countries with special environmental protection requirements. Such systems help reduce the risk of natural disasters, and protect environmental resources.

Taiwan's applied technology in the area of GIS and RS has matured significantly in recent years. In 2007, the TaiwanICDF held a workshop on GIS/RS and natural disaster management to assist friendly developing countries in more effectively managing their land resources, reducing the chance of decision-making that could have negative environmental consequences. As well as being used to prevent natural disasters, GIS and RS technology applications are also raising the ability of developing countries to reduce the impact of potential calamities. Participants from 22 countries came to Taiwan to take part in this workshop.

The focus of this workshop was to share examples of GIS/RS in practical use and hold discussions on relevant issues. In addition to explaining Taiwan's experience in using GIS/RS technology for environmental monitoring and disaster prevention, experts also provided examples of how the technology can be used in rescue projects. Arrangements were made for workshop participants to visit the National Center for Disaster Reduction, the Central Weather Bureau, the Council of Agriculture's Soil and Water Conservation Bureau, and the National Land Surveying and Mapping Center to



observe firsthand Taiwan's disaster prevention mechanisms and models. Members of Taiwan's GIS industry, as well as scholars and experts, participated in the workshop, shedding light on Taiwan's cooperative research model, which involves efforts by the government, academia, and the industrial sector. Question and answer sessions were also held to help clarify any queries that participants had.

Participants learned how Taiwan's government agencies integrate their efforts in the utilization of GIS/RS, and design interdepartmental disaster prevention mechanisms. The workshop served as a hands-on demonstration of the effects of GIS/RS, and its ability to function as a low-cost tool in disaster prevention. The workshop attendees were unanimous in their desire to explain the benefits of GIS/RS to government agencies on their return to their native countries. This, it is hoped, will lay the foundation for cooperation with Taiwan on developing GIS/RS applications.

# Creating Advanced Human Resources

The UN's Economic Survey of Latin America and the Caribbean, 2005-2006 indicated that since the 1990s, Latin American and Caribbean nations have posted relatively slow growth in productivity. While this is partially attributed to a reduction in investment, the main reason is a severe lack of technology. This situation has been exacerbated by globalization. Nations in the region have come to realize that they need to increase the percentage of skilled workers and accessibility to education. These are both crucial factors in enabling them to meet the challenges of a knowledge-based economy.

The TaiwanICDF designs human resource training strategies for countries in the region based on the national developmental needs of each nation. The organization is keen to make the best use of Taiwan's strengths and its own experience over the years in implementing training programs, tailoring each project to each nation. The ultimate objectives are to create employment opportunities and strengthen the overall economic development of each partner nation. The TaiwanICDF's efforts in this field emphasize vocational and higher level education. On-the-job training initiatives, meanwhile, include bringing people to Taiwan to participate in workshops as well as holding technical training courses in partner countries.

One of the key factors in Taiwan's successful economic transformation has been its ability to incubate a highly skilled workforce, providing the manpower crucial to the progress of industry. The TaiwanICDF supports partner nations in developing modern vocational education systems, improving equipment within schools, planning and integrating curriculums, training teachers, and developing instructional materials. The end result is the emergence of the highly skilled manpower required to bolster industrial development. Meanwhile, the TaiwanICDF has joined hands with top-notch universities in Taiwan. Scholarships are provided so students from partner countries can engage in undergraduate and postgraduate studies in Taiwan. Most students focus



▲ The Food Processing Workshop provides participants from different countries with an opportunity to learn a variety of techniques.

on agriculture, management science, industrial technology and ICT, with the majority of their theses directed at challenges faced by their native countries. The students take advantage of Taiwan's educational resources and development experience to examine the root of various problems in their home countries and propose solutions. For instance, one student has carried out research on the feasibility of Honduras becoming a center of commerce in Central America. Another research paper focused on analysis of U.S. import demands for cashew nut and its implications for El Salvador's agriculture. Theory and practice are integrated, helping students to draw conclusions as to which policies will best contribute to their home country's economic development. Students returning to their native countries also serve as an important bridge between Taiwan and their homelands.

The TaiwanICDF holds on-the-job training workshops and seminars in partner countries. Taiwanese technicians and experts stationed in or dispatched to partner nations preside over short-term training courses in the fields of agriculture and fishing, commerce and trade, and industrial technology. These workshops help to cultivate technicians in industry, government, and the academic sector. In addition, officials, industry representatives, and academics from partner countries are invited to take part in various seminars held in Taiwan. In 2007, the most popular seminars were on food processing, trade facilitation, and GIS & natural disaster management.



# Asia and the Pacific

Economic growth in Asia continues to accelerate. In 2007, it hit 8.2%, and most expect strong growth to continue in 2008. Southeast Asia, in particular, has benefited from globalization and regional integration. Over the past five years, poverty in this region has fallen significantly. Southeast Asia, however, still faces competitive pressures and a complicated commercial and trade environment. Though nations in the Middle East enjoy the benefits of oil exports, the climate of the region provides a developmental barrier to many industries. Conflicts in the region in recent years have made reconstruction the focus of development



▲ The Technical Mission in Kiribati holds the Fisheries Management and Training Workshop.

and cooperation programs. Meanwhile, over half of the inhabitants of Pacific island nations have a daily income of less than US\$1. Poverty and climate change are the most urgent challenges facing these small island countries.

Asia and the Pacific covers a vast area. The geography, cultural backgrounds, economic and political systems, and industrial structures vary considerably in each sub-region, not to mention from country to country. As a result, the TaiwanICDF must take into account a wide range of factors when undertaking cooperation projects in countries throughout Asia and the Pacific, and adopt developmental strategies and cooperation models suited to each sub-region. But regardless of the methods, the ultimate objectives are to reduce poverty, spark economic development, promote public health, and foster environmental sustainability.

# Diversification and Upgrading of Agriculture and Fishing

While countries in Asia and the Pacific are at various stages of social and economic development, farming and fishing remain the backbone of economic activity for most nations. The TaiwanICDF maps out cooperative strategies tailored to each country to develop and diversify these sectors.

Though Pacific nations have abundant oceanic resources, they are hampered by a limited amount of land and minerals. In addition, the environment of many of these islands is quite fragile. They also lack agricultural infrastructure and equipment, have smallscale domestic markets, and are overly reliant on fishing and tourism. As a result, they have a limited number of farming products, which are insufficient to meet local demand. Most of these countries rely on imports of staple foods and residents commonly have an imbalanced diet. Given this background, the TaiwanICDF's key objective is to help nations in the Pacific diversify their agriculture and fishing sectors. Various types of vegetables are introduced, and assistance is provided in establishing home gardens and ranches. Organic material generated in the farming process is recycled and reintroduced to the land to improve the quality of the soil. The end result is a range of agricultural products and broader sources of nutrients. This makes a big impact on improving the imbalanced diets that the locals have suffered from for a long time. The TaiwanICDF also assists these countries in developing small-sized fish and shrimp farms to alleviate over-reliance on offshore fishing, which is depleting stocks. In 2007, the TaiwanICDF held a regional fisheries development forum, assisting Pacific island nations in outlining methods to maintain their ocean resources and ensure sustainability.

Southeast Asian nations generally have a higher level of agricultural development. The focus of the TaiwanICDF's efforts in this region is to help countries boost their agricultural competitiveness by better coupling production and marketing, as well as by promoting investment. For instance, the TaiwanICDF has helped farmers' associations in Indonesia to operate on a more entrepreneurial basis.

# **Agribusiness Projects in Indonesia**

Indonesia has an almost uniformly hot climate yearround. The nation has many high mountains through its vast archipelago, which are suited to the cultivation of high altitude or winter crops. This helps to diversify the range of crops grown in Indonesia. Agriculture has consistently been an important sector in Indonesia. In 2005, the Technical Mission in Indonesia began to implement the upgrading of agribusiness management projects in general, aiming to promote advanced technology in Indonesia and expand agricultural cooperation with Taiwan. Production, marketing, and technology cooperation are helping to raise the market competitiveness of agricultural products grown in Indonesia.

The foundation of the project is Taiwan's unique experience in promoting the establishment of agricultural production and marketing teams. First, farmers are organized into these teams, and then assistance is provided to them to improve technology, the quality and volume of output, and returns on products. This sets the basis for expanding the scale of production. Products with market potential are emphasized, and modern business management concepts are introduced. Everything from production volume to delivery is mapped out. In addition, the mission has helped establish agribusiness system models, to help teams avoid exploitation by middlemen. With a stable production and marketing system in place, farmer incomes begin to rise and farming villages become increasingly prosperous. The technical mission has also carried out surveys of Indonesia's domestic market with the aim of expanding markets for the produce generated by these teams. Production plans are drafted, which include diversifying crops. The objective of the project is to promote stable markets and prices for locally grown vegetables and to begin developing overseas markets.

The technical mission also provides technical transfers, shares its experience, assists in the development of Indonesian farming villages, and promotes agricultural upgrading. In 2007, it established the Agricultural Business Extension Center in cooperation with Bogor Agricultural University. This center will serve as a hub for training and education, technology extension, and tourism and recreation. In addition to efforts made in Surabaya and central Java, the technical mission will work to create more refined agricultural production and marketing systems in and around Jakarta. This will assist Indonesia in improving the quality and quantity of its agricultural products, and create avenues to expand domestic and export markets.



# Forum on Building the Constructive Fishery Partnership between South Pacific Countries and Taiwan

South Pacific island nations sit on enormous oceanic resources, and fishing is the dominant industry in most of these countries. In recent years, agencies such as the UN's Food and Agriculture Organization (FAO), the World Bank, and the ADB have participated in regional cooperation, integrating international resources to carry out projects aimed at reducing poverty and promoting sustainable development. The development of fisheries is one focus of these projects. With this in mind, in 2007 the TaiwanICDF was contracted by the Executive Yuan's Council of Agriculture to hold the Forum on Building the Constructive Fishery Partnership between South Pacific Countries and Taiwan. The objective of this conference was to assist in the development of fisheries in the Pacific using Taiwan's expertise and experience in the field.

High-ranking officials from six allied countries in the region, including the Marshall Islands, Nauru, Tuvalu, the Solomon Islands, Palau, and Kiribati, came to Taiwan to participate in the forum. In addition to reporting on the state of development and challenges faced in their respective nations, participants heard from Taiwanese experts, who introduced the developmental experience of Taiwan's fisheries and important research. This enabled participants to understand the evolution of fishing development policy here and the critical measures implemented to support such development. Arrangements were made for the participants to visit government agencies overseeing the fishing industry, research bodies, aquaculture processing factories, and fishing villages. This allowed the officials from these friendly countries to come away with a comprehensive understanding of the development of Taiwan's

Seasonal regulation of crop production and processing technologies raise the value of agricultural products. The TaiwanICDF is also encouraging Taiwanese investment in agricultural businesses in Indonesia. The goal is to make use of Indonesia's fertile land and large pool of manpower to produce bioenergy crops, creating a mutually beneficial and cooperative relationship between the two parties.

Middle Eastern nations in recent years have instituted political, social and economic reforms. Amid increasingly free environments in those nations, the focus of the TaiwanICDF's projects is to boost farmers' incomes and reduce the need to use foreign exchange to import various items. The TaiwanICDF believes the region has potential for agricultural development and is establishing cooperative relationships to help partner countries improve their agricultural technology fisheries industry.

After the seminars, discussions, and field trips, forum participants reached a number of conclusions on promoting fishery partnerships in the region. These included: 1) Developing products unique to each area; 2) Employing ecological aquaculture to reduce harm to the environment; 3) Combining aquaculture and tourism to foster sustainable development. Meanwhile, Taiwan will continue to plan fisheries cooperation projects suited to the needs of the region and will encourage each nation to recommend applications by outstanding students in the field for the International Higher Education Scholarships offered by the TaiwanICDF. Through technical transfer and cultivation of top-level talent, the TaiwanICDF promotes the sustainable development of fisheries in the Pacific region.



and boost output. In Saudi Arabia, for example, tissue culture technology is being used to propagate date palm seedlings. The TaiwanICDF is also assisting Bahrain in landscaping planning and the development of an ornamentals industry. This is helping to improve the look of the urban landscape.

# Nurturing Private Sector Development

Taiwan's partner countries in Asia have diverse cultures and a wide range of topographies. Pacific island nations have long relied on U.S. funding based on the Compact of Free Association, as well as international development institutions in Australia and New Zealand. Government spending comprises the majority of economic output in these countries, which at the same time experience a lack of investment in



▲ As part of The Marshall Islands Micro-credit Project—Katnar Matan (right), from Alinglaplap atoll uses funds obtained through the project to purchase materials. She uses these to make handicrafts to sell at the local market.

the private sector. Small scale domestic markets, and high production costs, mean there is little enticement for investment in the private sector. Meanwhile, underdeveloped financial systems provide only consumer or salary account-guaranteed loans. As a result, few if any financing avenues exist to promote MSE production activities.

The overall performance of Pacific island

countries over the past two decades has been poor. Economic growth is well below the average for developing countries. Some countries suffer from high unemployment. Many also face health or environmental challenges. In particular, infrastructure and transportation facilities in offshore islands are insufficient. There is also a clear shortage of adequate access to financial services, and education. This has resulted in development imbalances between main and outlying islands. Based on the TaiwanICDF's experience, microfinancing is one means of sparking private economic activities and boosting household incomes. Improvements still need to be made by governments in the Pacific region to support development banks, while residents of these nations need to be instructed in proper loan concepts. Addressing these issues will help to reinforce the impact of microfinancing initiatives. Using the experience it has accumulated by running such programs in Central America, the TaiwanICDF is implementing microfinancing in these nations. It has

# Microcredit Fund to the Republic of the Marshall Islands

The economy of the Marshall Islands has been stagnant for many years. The wealth gap between the main island Majuro, the second largest island Ebeye, and other outlying atolls continues to widen. The government of the Micronesian island nation expressed its hope that the TaiwanICDF will use its experience in administering microcredit projects to extend banking services to outlying islands, helping to improve the lives of islanders and better balance domestic development.

This project is divided into two portions. Through the Atoll Revolving Fund communities can access funding from the Marshall Islands Development Bank and demonstrate their commitment to local development. Meanwhile, the Bank of Marshall Islands administers a microcredit project, assisting MSEs in accessing working capital and helping people create start-ups. These loans increase productivity and incomes, and help generate job opportunities. The project also operates in conjunction with technology cooperation carried out by the Technical Mission in the Marshall Islands. Microcredit is provided to farmers and fishermen, enabling them to expand the scale of their operations.

As of September 2007, a total of 115 loans had been made. Approximately US\$340,000 has been loaned so far, with the average loan amounting to US\$2,900. Loans have been made to parties throughout the 15 atolls in the country. The funding has been used to acquire sewing machines, tools to make handicrafts, tools and machinery for small-sized vessels, and to expand stores and improve equipment. A large portion of the loans has been funneled to farmers receiving assistance from the technical mission. After receiving production technology assistance from Taiwanese technicians, farmers apply to the Bank of the Marshall Islands for loans for land, irrigation machinery, and other production materials. According to media reports in the Marshall Islands, this project has made a major impact in strengthening the development of MSEs in the country.



# Improving the Health of Tuvalu's Citizens and Raising Medical Standards

Tuvalu has long faced a shortage of medical resources. The main island of Funafuti has only one medical center, Princess Margaret Hospital. Emergency cases or patients with serious illnesses must be transported to hospitals in neighboring Fiji, New Zealand, or Australia. Meanwhile, Tuvalu does not have a favorable farming environment. As a result, most consumer goods and foods are imported. The diets of most residents are dominated by high caloric and high cholesterol foods, making people susceptible to high blood pressure, diabetes, cardiovascular disease, and strokes. Faced with these issues, the TaiwanICDF has focused on improving nutrition and medical services in its assistance to this Polynesian nation.

The TaiwanICDF's first objective was to change the dietary habits of residents, thereby reducing the incidence of chronic illness. This was a prerequisite for improving the health care environment. The Technical Mission in Tuvalu has successfully introduced over 20 types of fruits and vegetables to the nation, and has provided guidance to residents in establishing home gardens. About 150 households in Funafuti have joined the program. Increasing the variety of produce has eased the longstanding problem of limited food choices; and a wider range of nutrients has led to more balanced diets, helping to reduce chronic illness and stress injuries brought about by obesity.

In September 2006 the TaiwanICDF and Taichung's

naturally tweaked the projects, to reflect the social and cultural habits of its Pacific partners. In addition to injecting capital to be re-lent, the TaiwanICDF also provides technical assistance to both FIs and borrowers. This strengthens the services provided by FIs and improves the ability of borrowers to repay loans. Proper concepts toward microfinancing are being extended to farmers, fishermen, and small-sized enterprises. The TaiwanICDF hopes to maximize the impact of this microcredit. In addition, the organization is working with cooperative agencies in each country to extend microfinancing to the residents of outlying islands, giving them the opportunity to improve the quality of their lives.

# Strengthening Health Care and Medical Services

Poverty, disease, and insufficient social infrastructure are common problems throughout Asia and the Pacific. This is especially the case in Pacific island nations. Many islanders exist on a diet Chung Shan Medical University Hospital cooperated on sending an MMM to Tuvalu for the first time, providing medical services to the public and training to local medical workers. Chung Shan and Princess Margaret Hospital signed a sister hospital agreement that paved the way for further medical and health care cooperation. Following up these efforts, two MMMs were dispatched to the main and outlying islands in 2007, providing treatment to 1,800 people. Doctors performed nearly 100 surgeries, and staff provided technical guidance and shared their know-how with their local counterparts, helping to raise the quality of health care for the Tuvaluan public.



comprised predominantly of fish and tubers, and intake of fruit and vegetables is limited. Such imbalance frequently leads to malnutrition. Poor sanitation and a lack of comprehensive medical care exacerbate the situation, leaving people vulnerable to threats from diseases such as diabetes, tuberculosis, malaria, pneumonia, and dengue fever.

The TaiwanICDF makes use of Taiwan's expertise and developmental experience in medical care and public health to address the special needs of the region. It works together with hospitals and medical centers throughout Taiwan in forming MMMs to provide care in areas that are routinely neglected. As well as medical services, these dynamic teams provide demonstrations and training in various clinical techniques. They also stage public health education campaigns and offer donations of medical- and health care-related equipment and goods. The missions assist partner countries in strengthening their grassroots medical services and health care systems, and in widening the capacities of existing clinics. Improving



The Mobile Medical Mission uses portable ultrasound equipment to carry out an abdominal exam of a villager in Nauru.

the medical resources available and the public health environment helps to reduce the incidence of disease and the transmission of illnesses. The MMMs also carry out surveys on the types of illnesses prevalent in each area and monitor the habits of locals to observe whether they stick to prescribed courses of medicine. The results of such surveys are used as reference in formulating cooperative medical projects or research in the future. Meanwhile, the TaiwanICDF, and the health departments of Taiwan's Pacific partners, jointly draft measures under which patients can be transferred to other medical facilities to be treated. Presently, a number of hospitals in Taiwan have set up preliminary medical transfer mechanisms with partner countries in the region. This is expected to create a foundation for cooperation in distance health care, providing people with higher quality medical services.

The TaiwanICDF is also designing agricultural cooperation projects to assist its partners in developing a wider variety of agricultural and fishing products. Transforming the eating habits of locals is helping to address the problem of imbalanced diets, which have long impacted the health of people in these areas, and the incidence of chronic disease.

# Promoting Environmentally Sustainable Development

A rapid increase in the world's population, and globalized economic development are putting

# **Solar Power Systems Project**

Environmental awareness has become an important topic in recent years, and increasing attention is being paid to the greenhouse effect caused by CO2 emissions. These issues have brought renewable energy into the spotlight. Solar energy does not result in any greenhouse gas emissions, nor does it pollute the environment. It has, thus, become the renewable energy with the greatest developmental potential. Situated in the South Pacific, Nauru has long suffered from frequent power outages due to insufficient fuel to power its generating systems. Power is provided on a rotating basis throughout the nation (on for six hours and then off for six hours), creating extreme inconvenience for residents.

According to meteorological data from the EU in 2004, Nauru's annual average daily solar radiation is 5.8 kWh/m<sup>2</sup>/day. The country has ample sunlight and the variance in daily solar radiation is limited. As a result, solar power systems can help address the household needs of Nauruans and provide basic illumination. The TaiwanICDF program has provided 60 solar energy household illumination systems, along with two 18-watt lamps to each household. Taiwanese technicians are providing training on the installation, repair, and maintenance of the systems so that local technicians can install and service the systems.

The abundant sunshine in Nauru makes the island an ideal place in which to adopt solar energy. The TaiwanICDF's project

not only helps reduce the inconvenience of a lack of lighting, but also promotes the use and understanding of renewable energy in the Micronesian nation. Each year, 6,307 kilowatts of energy are expected to be generated under the program, which is the equivalent of reducing CO2 emissions annually by 3,910 kilograms. The experience gained by administering this project will enable the TaiwanICDF to promote environmental protection and renewable energy projects throughout the Pacific region in the future. This initiative combines Taiwan's technology with environmental protection, and has the added advantage of instructing partner countries about sources of renewable energy.



a tremendous burden on the Earth's environment. Advanced nations and developing countries alike are depleting the world's natural resources. This is hastening the deterioration of ecosystems and is triggering climate change, which is affecting global economic development, and in some cases triggering a struggle for survival in developing countries.

Most of Taiwan's allies in the Pacific are underdeveloped nations that have fragile environments. Many are coral atolls that rely on tourism and marine resources for their economic livelihood. Climatic change is affecting ocean currents, which in turn is threatening fishing stocks for these nations. Meanwhile, rising sea levels are encroaching on the limited land of these countries, directly threatening the survival of residents. As Taiwan itself is an island nation, it realizes the immense impact that environmental changes will have on long-term development. Therefore, in keeping with its pledges at the 2007 Taiwan-Pacific Allies Summit to work to create healthy and green Pacific islands, the TaiwanICDF is carrying out environmental protection projects in friendly Pacific nations.

The TaiwanICDF works to enhance environmental protection primarily through agricultural projects. It assists partners in effectively utilizing their existing



▲ Farmers in Fiji learn field management techniques that they use in their asparagus farms.

resources. Animal husbandry and farming projects are integrated so that materials can be recycled to their best use. This cuts back on the use of chemical fertilizers and at the same time helps reduce pollution and damage of aquifers. The TaiwanICDF is also utilizing solar and wind energy technology from Taiwan to create renewable power systems for household use. This addresses the lack of power faced by some of these nations, particularly in outlying islands. It also reduces reliance on petroleum fuels and the pollution that these cause, while helping to protect the environment and ecosystems.



# **Central and Eastern Europe, and Central Asia**

The liberalization of political systems, the transition to market economies, and the development of democracy in former Eastern Bloc countries have caused a fundamental shift in the structure of these nations. Instead of relying on a planned economy, these countries are increasingly focusing on domestic consumption markets. Combined with the abundant natural resources of the region and the strong demand internationally for these resources, the region posted stellar economic growth of 7.3% for 2006 and is likely to maintain this high growth rate in coming years. However, many countries in the region still face



▲ Azerbaijan is enjoying strong domestic demand and rapid economic growth due to its oil and natural gas fields. Private sector activity is increasing, boosting the need for financial institutions to offer diversified banking services.

significant challenges, including a widening wealth gap and waning momentum in reducing poverty. These issues will hinder economic growth and development in the years ahead. Unemployment both among the young and middle aged, and the aging of society, are leading to a lack of creative ability, as well as a shrinking labor force. Meanwhile, many companies in the private sector need to be instructed in corporate governance, and a large number of firms lack access to formal financing. This problem is becoming even more serious as the global banking market is becoming increasingly averse to risk. FIs have begun to rein in credit lines in some countries. This is indirectly affecting domestic consumption and investment willingness, and is having a negative impact on economic growth in the region over the medium and long term.

### Promoting Growth among MSEs

During the process of economic transition, the reform of the enterprise sector in former socialist countries has been at core of the reform package. To enhance financial access in order to meet the increasing needs of MSEs, the TaiwanICDF through its operations in loans, cofinancing, and trade facilitation, enables local FIs to increase their capacity and also to enter the international capital market. In this way, the TaiwanICDF's efforts in the region are improving local banking systems, strengthening the capacity of FIs, and creating an environment advantageous to the development of MSEs.

FIs play a decisive role in providing services to industry as a nation's economy develops. However, as many nations in the region are in the early stages of economic transition, most FIs are state-owned enterprises. They shoulder the burden of supporting the development of large-scale state-owned companies. MSEs are not their focal clientele, and as a result such enterprises can find it difficult to obtain financing. The TaiwanICDF has introduced MSE re-lending projects to provide local FIs with a stable source of capital over the long term, thus enabling them to re-lend to local enterprises, supporting investment willingness in the local business sector.

The region has seen rapid growth in the number

of MSEs in recent years. Many of these nascent firms, however, have questionable performance in their early years and face relatively high business risks. In addition, most loans extended to microenterprises are no more than US\$10,000 and no more than US\$200,000 for MSEs. The small size of these loans leads to increased transaction and management costs for banks, impacting their willingness to entertain such operations. It is to address this dilemma that TaiwanICDF has introduced its re-lending projects throughout the region. These projects first help strengthen the capability of FIs (including nonbank FIs), to ensure sustainable financing services can be delivered to MSEs. Capital is then provided to the institutions, for re-lending to MSEs in need of financing, and also to assist in expanding the FIs' operations.

In 1999, the EBRD introduced its Trade Facilitation Program (TFP) in the region. This was aimed at improving the functions of banks, and

#### **Small Business Account Projects in Azerbaijan**

In 2005, the TaiwanICDF and the EBRD cooperated in setting up the Financial Intermediary Investment Special Fund—Small Business Account (FIISF—SBA) in order to assist in the economic development of the former Eastern Bloc. The TaiwanICDF has invested US\$10 million in the account, providing the region's MSEs with access to financing. This is helping to address the developmental limitations on enterprises, which have difficulty obtaining loans.

Rapid growth has been seen among MSEs in Azerbaijan in recent years. Many, however, are seeing their growth capped by an inability to access financing. This is understandable, given that many commercial banks have initial concerns relating to country risk in most emerging markets or economies. In response, the EBRD has singled out Azerbaijani banks that demonstrate development potential. Capital and technical assistance have been provided in the hope that this will not only pave the way for the sustainable development of these banks, but also benefit MSEs. Funding agreements were signed with Bank of Baku and Bank Respublika in July 2007. The EBRD has provided US\$13.25 million to the two banks, while the TaiwanICDF has contributed US\$1 million to each through the FIISF-SBA. Under the Bank Respublika project, the FIISF-SBA provided 25% of a total of US\$24 million, with the rest coming via a syndication loan from international commercial banks. Utilizing this syndication to raise funds for the banks helps to increase their international visibility and credibility, so that in the future they can obtain funding from the international market on their own.



As of the end of 2007, the TaiwanICDF had committed US\$7 million of investment funds via the FIISF—SBA. The funds are being used in four sub-projects: The ETC Nonbank MFI Framework Project, the ProCredit Bank of Georgia (II) Project, the ProCredit Bank of Ukraine Project, and the Azerbaijan Bank of Baku and Bank of Respublika Projects. By contributing to the FIISF—SBA with the EBRD, the TaiwanICDF not only has the opportunity to participate in projects to enhance the services of FIs in former Eastern Bloc nations, but also is able to serve as a platform for the provision and exchange of more financial market information between the banking communities in these countries and Taiwan.

# **Economic Forum in Krynica, Poland**

The Economic Forum in Krynica has been held annually since 1990 to discuss the political and economic situation in the former Eastern Bloc and the Balkans. European nations have begun paying more attention to this region in recent years, and the forum is aimed at shedding light on regional development, as well as discussing topics related to the eastward expansion of the EU.

Organizers felt that since these nations are presently undergoing economic transition, it would be beneficial to take a closer look at the SME cluster effect in Taiwan as well as the island's ICT development. To this end, a delegation from Taiwan was invited to attend the forum in 2007, marking the first time that a group from Asia took part in the event.

The delegation comprised TaiwanICDF Assistant Secretary General Dr. Lee Pai-po, Small and Medium Enterprise Administration Director General Dr. Robert S.Q. Lai, and National Tsing Hua University Dean Dr. Shih Chin-tay. They introduced and discussed Taiwan's experiences in SME and ICT development, and also offered recommendations on how to foster industrial cooperation between Taiwan, and Central and Eastern European nations. Suggestions included introducing Taiwanese enterprises to emerging markets in the region so they can provide appropriate products and services, and promoting exchanges via which Taiwan could assist in training technicians and managerial talent. Expanding avenues of cooperation would help to promote mutual prosperity, they concluded.

The response from participants in the forum was enthusiastic. In the future, the TaiwanICDF plans to invite

strengthening letters of credit, thus promoting trade between the private sector in the former Eastern Bloc and countries outside the region. Under the program, the EBRD provides guarantee for letters of credit to confirming banks outside the region. This puts the political risk to the beneficiary countries, and the commercial risk to the issuing bank, on the EBRD, thereby encouraging commercial banks outside the region to accept letters of credit from the issuing banks. This eventually assists companies in expanding international trade. In 2006, the TaiwanICDF and the EBRD signed an agreement for a contribution to the Financial Intermediary Investment Special Fund-Trade Facilitation Program (FIISF-TFP), which provides guarantees to issuing banks in Azerbaijan, Russia, and Ukraine. As of the end of 2007, a total 109 banks had become issuing banks under the TFP, and 639 banks had been designated as international confirming banks. Over 6,000 transactions have been carried out under individuals from Taiwan's business and industrial sector to take part in the forum, in order to display Taiwan's international competitiveness as well as share practical experiences with forum participants. This is expected to foster substantive exchanges and cooperation on the industrial level. The TaiwanICDF also took advantage of this opportunity to hold the First Regional Meeting of the TaiwanICDF Alumni Societies of the Central and Eastern European Countries and CIS in Warsaw. Over 50 people from Poland, Hungary, the Czech Republic, Latvia, and Russia who had previously received training in Taiwan attended the annual conference, helping to encourage interaction among people from those nations and reinforce Taiwan's ties with them.



the program so far.

As the EU continues to expand, technology and capital from Western Europe are being introduced to new members in Central and Eastern Europe. This is fostering international trade by countries in the region, and providing momentum during economic transition, increasing the economic importance of the region. In the future, the TaiwanICDF's cooperation and assistance activities for nations in Central and Eastern Europe, and Central Asia will continue to focus on integrating and enlarging resources. The TaiwanICDF will use existing channels of cooperation and its status as a development institution to continue its collaboration with international, regional, and bilateral development institutions. It will look for investment opportunities with development potential, and work to spark growth in the private sector, all the while aiming to promote market economy in the region.