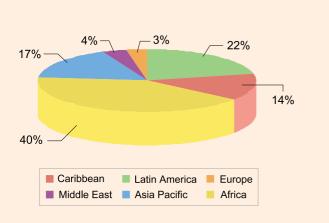
# **Technical Mission Achievements**

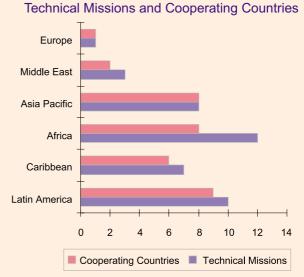
ICDF technical missions were involved in 103 projects in the following eight major categories in 2000:

- Crop production enhancement (Belize, Burkina Faso, The Gambia, Honduras, Malawi, Papua New Guinea, Senegal)
- Horticultural crop development (Costa Rica, El Salvador, The Gambia, Guatemala, Indonesia, Nicaragua, Papua New Guinea)
- Handicrafts training and promotion (Costa Rica, Guatemala, Swaziland)
- Aquaculture, including shrimp, saltwater and freshwater fish farming (Honduras, Indonesia, Saudi Arabia)
- Improved livestock breeding and veterinary care (Nicaragua, St. Vincent)
- Commercial development and trade promotion (Macedonia)
- Industry service (Dominican Republic)
- Medical services (Burkina Faso, Chad, Malawi, São Tomé and Principe)

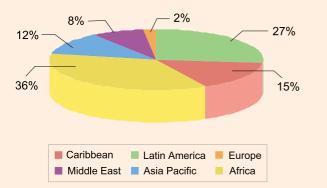
Descriptions of the achievements of the technical missions follow by region.



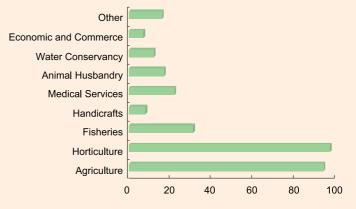
Technical Mission Expenditures by Region



Mission Personnel by Region



#### **Mission Personnel Expertise**



# Africa

# **Burkina Faso Technical Mission**

In August 2000, the Rice Extension Project completed initial land development of 1,000 hectares, making it possible to grow two rice crops per year. In addition to raising Burkina Faso's grain output by 10,000 tons, the project has added jobs and stimulated peripheral business opportunities, spurring economic and social progress in the African nation.

## **Chad Technical Mission**

Through the Rice Yield Enhancement Project, the Chad technical mission is training farmers to improve rice yields, and transferring machinery technology to them. In 2000, the project reclaimed 500 hectares of land for rice cultivation, promoted cultivation on an additional 417 hectares, and trained 1,667 people in farming techniques.

The Vegetable Project extended 25 hectares of land for vegetable cultivation and trained 45 farmers. The result is that superior vegetables are being produced, and this has contributed to the creation of peripheral economic opportunities and a tangible improvement in the standard of living.

## **The Gambia Technical Mission**

The Capacity Building Project for Rice Reclamation and Extension has resulted in cultivation on low-cost, irrigated tidal land, an amelioration of water supply, and solutions to problems of large-area irrigation. Rice production has increased from one ton to five tons per hectare, partly as a result of the installation in 1999 of a farm machinery shop, warehouse and irrigation system.

Seven hundred sixty-two hectares of paddy rice were cultivated in the middle and lower provinces of the Gambia River, while dryland rice was cultivated on 408 hectares of fields in these and other provinces.

Through the Vegetable Production Enhancement and Marketing Project, the mission has aided The Gambia to increase vegetable production in the capital, Banjul, as well as in Banjulnding, Lamin and Sukuta. The project, in which 445 farming households participated, extended cultivation to 21.66 hectares in these three provinces, bringing the total cultivated area to 37.65 hectares. A consumer cooperative was established with income saved in a revolving fund, the proceeds of which will be used to help the Sukuta farm establish another farmers' cooperatives in the future. Profits from cultivated areas reached US\$123,241, with 75 percent of these profits going to working farmers, and 25 percent returning to the revolving fund.

# **Liberia Technical Mission**

The Animal Husbandry and Agriculture Development Project, launched in July 2000 in Bong County, promoted crop cultivation on 100 hectares, and trained 240 people in agricultural and animal husbandry skills.

The goal of the Rice Yield Enhancement Project is to restore rice cultivation in areas left fallow as a result of Liberia's civil war, which ended in 1996. The mission reclaimed or promoted approximately 284 hectares of land for rice cultivation, and provided training to 146 farmers.

In the Rice and Vegetable Development and Extension Project, the mission promoted crop cultivation on 28 hectares of land, trained 131 farmers, and helped restore facilities at the University of Liberia's Department of Agriculture farm. This made it possible for the farm to conduct technical training and grow seedlings for agricultural extension.

#### **Malawi Technical Mission**

Through the Horticulture Development and Extension Project, the Malawi technical mission continued its horticultural development and farmer training activities. The mission assisted in growing superior grade rice seed on 1.7 hectares of test beds, for gradual extension throughout the country. It also advised 2,165 farming households on the cultivation of 500 hectares of paddy rice and conducted a husk rice cultivation and marketing seminar for 126 farmers that helped them to triple their incomes. Other activities included the conducting of corn cultivation seminars for farmers from 1,280 households and the promoting of corn on 1,000 hectares.

#### São Tomé and Principe Technical Mission

The technical mission's work with government officials and local farmers in the Food, Horticulture and Animal Husbandry Development Projects resulted in the reclamation of more than 30 hectares of land for cultivation and the production of more than 5,300 kilograms of rice seed and 102 kilograms of vegetable seed. The mission conducted two seminars in production and marketing and trained 199 people in horticulture and animal husbandry.

As part of the efforts to revitalize the animal husbandry industry in São Tomé and Principe, the mission helped to raise 13,206 fryer chickens and 5,030 egglaying chickens. Sixteen new households participated in the poultry production activities.

# **Senegal Technical Mission**

In northern Senegal, the technical mission conducted the Rice, Vegetable and Floriculture Projects. They trained farmers in the "deep-water, direct-seeding" method of rice paddy cultivation and planted rice on more than 3,000 hectares, realizing an average yield of more than 5 to 6 tons per hectare. In southern Senegal, the technical mission promoted half-year dryland rice cultivation and half-year land reclamation on 412.67 hectares, achieving an average yield of 3.5 to 4.5 tons per hectare. The mission promoted rice cultivation on 3,778 hectares, and trained 2,469 farmers.

A new asparagus project, under which the mission provided training to 92 farmers, resulted in the development of 14.4 hectares and the cultivation of asparagus on 35 hectares.

As part of the South Senegal Aquaculture Project, farmers are increasing their incomes and improving the protein supply for their families by farming tilapia (a genus of freshwater fish). In 2000, approximately one third of a hectare of land was reclaimed for use in this project, and 65 people received aquaculture training.

# **Swaziland Technical Mission**

The Small Farmer Corn and Sweet Potato Project, which is scheduled to run until 2003, is helping Swaziland to achieve self-sufficiency in maize and sweet potato cultivation. The mission trained 2,142 farmers, and promoted corn cultivation on 1,626 hectares and sweet potato cultivation on 75 hectares.

The objectives of the multifaceted Royal Project are to cultivate vegetables, rice and miscellaneous crops. These are donated to the Swazi royal family in lieu of rent for fields used by mission headquarters and branches; used to provide support for agricultural shows and conferences, disaster relief efforts and special provincial celebrations; or consumed locally. During the year, the mission reclaimed 108 hectares of land on three farms and trained 37 farmers.

In cooperation with the Swaziland Department of Agriculture, the mission is implementing irrigation systems and rural development projects, and providing assistance to government agencies through the Department of Agriculture Support Project. The mission completed five bridges in water conservancy and irrigation projects and trained eight personnel. Also, the mission worked to reclaim 717 hectares of land.

As part of the Capacity Building Project for Handicraft Training in Swaziland, the handicrafts mission established a training center composed of a library, materials supply center, and research and development group. The center conducts training classes in wood and stone carving, leather working, ceramics, art design, sewing and garment design, mechanical skills, electrical repair and computer skills. Mission members help the local people who have completed their training to start businesses and sell their products. By improving product quality, the training center is contributing to the development of family handicrafts in rural Swaziland and creating additional sources of family income. The mission conducted handicrafts training sessions for 268 Swazi workers, and held short-term seminars for 120 persons.

# Asia Pacific

#### **Fiji Technical Mission**

The Off-Season Vegetable Cultivation and Extension Project is establishing a vegetable growing zone where vegetables with a high value will be grown during the summer rainy season.

#### Indonesia Technical Mission

Under the Horticultural Crop Business Management Project, unified vegetable production and marketing is being established, and Taiwanese investment in relevant industries is being encouraged. The mission held 56 vegetable production and marketing seminars and promoted cultivation on 194 hectares. It also trained 4,542 persons, and participated in the sale of 266,665 kilograms of vegetables valued at 1.1 million rupiahs.

The Indonesian Goat and Husbandry Project is working to develop the meat and milk potential of Indonesian Peranakan Ettawa goats. The project trained 255 farmers in 2000, and assisted in raising 155 goats and 16 cattle.

The Soybean and Superior Seed Production Project is promoting high-yield varieties, improving cultivation methods, and increasing soybean acreage. Over the year, the mission produced 300 kilograms of original progenitor seed and 9,000 kilograms of progenitor rice. It trained 120 farmers in soybean cultivation methods and helped them to produce 270,000 soybean seedlings and earn 5.8 million rupiahs from soybean sales.

The goals of the Mushroom Growing Business Management Project are to improve and increase unit yields of edible fungus, reduce production costs and strengthen product competitiveness. During the last two years, more than 600 mushroom growing facilities have been constructed throughout the Gambertan, Cangkringan, Turi, Kaliurang and Kepoharjo precincts in Rire Province. The past year saw the introduction of a factory to create packaging for the burgeoning supply of Indonesian mushrooms. Farmers produced 42,800 bottles of edible fungus and sold 33,500 kilograms of dried Jew's ear mushrooms valued at 603 million rupiahs. In addition, the mission trained 305 farmers. The Intensive Grass Shrimp Raising Improvement Experiment and Extension Project is improving the aquaculture environment in Indonesia. The ICDF mission assisted in establishing a mode of combined fish and shrimp cultivation that prevents the occurrence of disease. It also trained 535 farmers and promoted aquaculture to 65 households, while overseeing the production of 2,642 grass shrimp and 34,377 kilograms of tilapia.

## **Nauru Technical Mission**

The goals of the Vegetable and Fruit Tree Project and the Superior Poultry Project are to introduce vegetable and fruit tree varieties that can thrive in Nauru's saline soil, and superior poultry varieties that can adapt to the country's tropical climate. Before local disturbances disrupted the work of the mission, three tenths of a hectare of land had been reclaimed for the cultivation of vegetables and seven tenths of a hectare for fruit trees. Chickens were being raised in two reclaimed warehouses.

#### **Palau Technical Mission**

The Horticultural and Miscellaneous Crop Extension Project is accelerating the development and extension of new and traditional crops in order to relieve the current shortage of fruits, vegetables and staple foodstuffs in Palau. The project reclaimed 24 hectares, planted mixed crops on 22.3 hectares and raised 116,270 seedlings. The mission provided consulting services to four community farms, seven households and one criminal farm.

#### **Papua New Guinea Technical Mission**

In coordination with the rice development policy of Papua New Guinea, the ICDF technical mission, through the Grain Production Project, promoted rice cultivation in the Lea 3 Mile marsh area. The technical mission also promoted rice cultivation in Paohom, Kuriva and Vanapa, employing traditional labor power and tools. Farmers are still using woven bamboo implements to shell rice, and recycling nylon bags as drying equipment, but the new techniques and cultivation methods are helping to break through traditional rice development and processing bottlenecks in Papua New Guinea.

As part of the Vegetable and Miscellaneous Crop Production/Marketing Project, the mission reclaimed 13 hectares of land for watermelon and vegetable cultivation, and established a five-hectare area for the development of professional farming techniques in Brown River. The mission cooperated with the United Nations Food and Agriculture Organization in setting up an irrigation system in Markham, planting new vegetable varieties, and increasing the vegetable growing area. The project trained 842 farmers, reclaimed 103 hectares for vegetable production, and promoted cultivation on 174 additional hectares.

# **Thailand Technical Mission**

In accordance with Thailand's policy of promoting mixed farming and forestry in the northern highlands, the Northern Thailand Forestry Development Project increased forested land by 20 hectares and established a 20-hectare tea farm. It also planted tea on 10 hectares, fruit trees on five hectares, bamboo on 40 hectares, and vegetables on 50 hectares. Vegetable production and processing brought in revenue of more than 2.5 million baht (US\$60,000). The mission held 46 seminars and trained 1,209 technical personnel and farmers.

## **Solomon Islands Technical Mission**

The Rice Field Reclamation and Production/Marketing Training Assistance Project is helping to increase the annual rice output, thereby raising farmers' incomes and reducing the foreign exchange outflow in the Solomon Islands. The project reclaimed 929 hectares in 2000, promoted the use of an additional 974 hectares, and trained 391 persons.

# Caribbean

#### **Dominica Technical Mission**

The Horticultural and Field Crop Demonstration Project is helping Dominica diversify its agriculture by selecting superior crop varieties with export potential and encouraging farmers to increase their revenue through the cultivation and export of new crop varieties. The project reclaimed 57 hectares of land and harvested 170,000 pounds of sweet corn, 78,000 pounds of papaya and 185,000 pounds of pineapple. The mission trained 182 students and provided specialized agricultural machinery training to 85 people. Fruit sold to other Caribbean islands generated US\$1,958 in income.

The Aquaculture Extension Project is providing saltwater fish cultivation technology to Dominica. The mission trained six individuals and six households in aquaculture and reclaimed three hectares of land. It also raised 200,000 shrimp fry and 500,000 tilapia fry and harvested 3,000 pounds of shrimp and 2,000 pounds of tilapia. A fish farmers' fund accumulated US\$20,453.

## **Dominican Republic Industry Service Mission**

Established in April 2000, the Dominican Republic Industry Service Mission is providing technical consulting and human resources training to key Dominican Republic industries. The mission is helping manufacturers to upgrade their technology in order to improve competitiveness, and this is stimulating overall industrial and economic development. Simultaneously, the mission's work in facilitating Taiwanese investment in the Dominican Republic is creating a positive force in consolidating the friendship between the two countries.

The Industry Service Mission accomplished several important goals: the organization of diagnostic technical consulting services and seminars, the opening of communication with provincial development associations and the SME office of the Dominican Department of Commerce and Industry, and completion of the first stages of a feasibility study of investments in knife mold making and plastic injection shoe soles.

#### **Dominican Republic Technical Mission**

Under the Paddy Rice Improvement Project, the technical mission produced about 138 tons of breeder and foundation seed.

The Horticultural Crop Cultivation and Bamboo Construction Project saw the cultivation of 10 hectares of celery varieties, 6 hectares of Chinese cabbage, 2 hectares of garlic strains, and 6.2 hectares of melon varieties. The mission established a simple breeding center for vegetable seedlings, growing vegetables organically on 40 hectares. The demonstration field covered 1.1 hectare, while seedlings were produced on 12.6 hectares and bamboo was promoted on 19.7 hectares.

In the Freshwater Fish Fry Raising and Release Project, the mission bred 834,700 fish fry, while training 16 fishing personnel and 66 students. The Saltwater Shrimp Raising Project saw the breeding of 8,592 pounds of shrimp and the holding of one seminar.

## **Grenada Technical Mission**

By diversifying agriculture, the Horticultural Crops Project is increasing employment opportunities and improving living conditions for the farmers. The mission is helping Grenada develop a cut flower industry that will also boost tourism. In 2000, the mission reclaimed 1.2 hectares of land, promoted cultivation on 26 hectares, and provided training to 360 individuals and 56 households.

The Aquaculture Extension Project trained one fisheries official and 10 shrimp farmers in 2000. It also conducted seminars on the raising of freshwater shrimp and tilapia and worked to develop Grenadan aquaculture technology. The goal of the Agricultural Product Processing Project is to help Grenadan small-scale agroprocessing farmers increase their productivity and generally to make the whole processing system more profitable. The mission promoted processing of agricultural products on 13 hectares of land and trained 45 persons.

## **Haiti Technical Mission**

As part of the Rice Yield Increase Demonstration and Training Project, the technical mission promoted cultivation of rice on 786 hectares and trained 308 personnel.

The Bamboo Cultivation and Processing Project was responsible for the reclamation of 5 hectares of land and the propagation of 38,300 bamboo seedlings.

## St. Kitts and Nevis Technical Mission

The Fruits and Vegetables Project is extending vegetable and fruit cultivation in St. Christopher. During the past year the mission promoted fruit and vegetable cultivation and trained 310 people.

#### St. Vincent Technical Mission

St. Vincent and the Grenadines was once almost completely dependent on imported pork. Now, as a result of the Hog Breeding Extension Project, the ICDF technical mission has made it possible for the country to supply approximately 85 percent of its own pork products. In 2000, the technical mission assisted in building one new hog breeding farm, as well as a hog propagation farm in Cemdem Park. Total production reached 11,724 hogs, with a market value of US\$2,538,246. Three hundred eighty-five superior breeder hogs were raised, valued at \$166,705. Ten people received training.

The Horticultural Crop Development Project is working on vegetable cultivation, tropical fruit extension, and banana plant tissue culture development. Crop development was promoted on 70.13 hectares of land, and 30,900 banana seedlings were produced. The mission supervised the training of 137 people, and St. Vincent provided funds to purchase equipment and extend facilities for a plant tissue culture laboratory that will expand capacity.

# **Central and South America**

# **Belize Technical Mission**

Through the Seed Rice Production and Technology Transfer Project, the mission helped to reclaim 2.5 hectares of land, produce 10,523 kilograms of superior rice varieties, and cultivate 25 hectares for rice seed development. It is hoped that this seed will, in future, supply two thirds of the total requirements for rice cultivation in Belize. The mission also set up a sustainable rice growing fund and trained 150 Belizeans.

In order to diversify agriculture in Belize, the Vegetable Production and Technology Transfer Project is identifying and developing vegetables, melons and other crops with market potential. The mission promoted vegetable production on 235 hectares and trained 334 people.

The Food Processing Project is contributing to diversification of the Belize agricultural industry by developing value-added products through food processing. In addition to training 120 people, the project offered consulting services on the establishment of a fruit drying factory and technical advice to four food processing factories.

## **Costa Rica Technical Mission**

In an effort to diversify crops, the mission, through the Fruit, Vegetable and Banana Production Improvement Project, is screening and introducing fruit trees and vegetables suited to Costa Rica's environment. It is transferring propagation technology designed to produce superior seedlings for extension purposes. Over the year, it grew various fruit trees and seedlings on 137 hectares, and educated 372 households in fruit tree cultivation. The mission also cooperated with Turrialba's small farmer agricultural processing agency APPAG, to develop investment for a food processing plant.

In addition to developing handicrafts, the Bamboo Handicraft Development and Bamboo Cultivation Projects are promoting the use of bamboo products in Costa Rican housing construction. The mission completed forestation of 44 hectares, organized a marketing seminar attended by 11 people, provided consulting services to five bamboo processing factories, and trained 25 people. The technical mission is cooperating with JAPDEVA (an Atlantic Coast Economic Development Committee) on this project.

Through the Floriculture Project, the mission is introducing new flower varieties suited to cultivation and extension in Costa Rica. It constructed a new greenhouse with 20 buildings, organized marketing seminars which were attended by 145 households, and trained 401 people in promotion techniques. The mission also worked to establish new management methods for raising orchids.

The Atlantic Fisheries Production Improvement Project is unifying fisheries production and marketing, and providing training to fishing, navigation and engine specialists. The project promoted 46 tilapia pools and trained 91 people in fisheries technology.

### **Ecuador Technical Mission**

In conjunction with the Ecuadoran Department of Agriculture and Animal Husbandry, the Rice Project is providing training and materials to demonstration farmers, and assisting them in growing and preparing seed rice. In 2000 the project reclaimed three hectares of land, produced 30,945 kilograms of seed, promoted the use of 694 additional hectares, and held 10 technical training seminars.

The Vegetable Cultivation Zone Development Project is assisting in the development of vegetable and tropical fruit tree cultivation zones. The project saw the reclamation of 330 hectares of land, the promotion for cultivation of 81 additional hectares, the provision of consulting services to farmers, and the conducting of four marketing seminars and 19 workshops.

# **El Salvador Technical Mission**

As part of the Horticulture Project, the technical mission in El Salvador is extending cultivation of high-elevation, cool-weather vegetables (cabbage, potatoes, lettuce, etc.). Twelve hectares yielded 496,685 pounds of crop in 2000. The El Salvador Department of Agriculture cooperated with the project in building a new vegetable market, which opened new sales channels for farmers. The mission promoted horticulture extension on 161 hectares of land, and grew 63,000 vegetable seedlings.

The Aquaculture Project is extending saltwater shrimp raising and improving aquaculture management techniques in El Salvador. The project promoted the use of 97 hectares of land for aquaculture activities, and assisted in the raising of 3,029,000 sea shrimp, 330,000 freshwater shrimp, 350,000 tilapia fry and 6,600 carp fry. It also trained 407 people.

The goal of the Rice Project is to transfer technology for growing strains of progenitor seed rice to the Central Institute of Agricultural Technology, in order to enable the propagation of seed rice on a large scale. The mission trained 32 El Salvadorans in this technology and promoted the use of 66 hectares of land.

# **Guatemala Technical Mission**

Through the Peten Agricultural Improvement Project, the ICDF technical mission assisted the Non-Traditional Crop Export Promotion Association of the Peten region to cultivate and process chili pepper and asparagus. It guided 86 farmers in growing 78.4 hectares of chilies, which produced 33,200 pounds of fruit. Processors produced 17,600 pounds of chili sauce and 5,000 pounds of chili powder for domestic consumption and for export to the United States and Belize. The project reclaimed 5.6 hectares of land for the fruit tree seedling farm and trained 422 Guatemalans.

The Bamboo Construction Development Project is helping poor farmers cut housing costs, reducing the widespread felling of trees for building materials, and assisting in efforts to conserve water and soil. The technical mission helped to grow 1,200 South American hemp bamboo trees on a 21-hectare bamboo farm. It also coordinated its efforts with XFAM, a nongovernmental organization, to promote the use of bamboo building technology to construct 298 new homes in Retalhuleu.

Technical mission members provided guidance to graduates of the mission's bamboo construction seminars, during the planning and implementation of work on bamboo housing at the San Carlos University and on a Panamanian farm. The project provided consulting services to 14 farms, promoted bamboo cultivation on 21 hectares, and held nine training seminars for 42 people.

The Horticultural Crop Development Project has assisted Guatemala in breeding superior, high-yield crop varieties suitable for domestic cultivation, improving cultivation and processing methods, and organizing vegetable production/marketing teams. The project oversaw the cultivation of 31 hectares of sweet peas and 8.5 hectares of star fruit and guava, the holding of seven vegetable marketing seminars, and the construction of a small warehouse and holding area.

In the Floriculture Development Project, the mission is cooperating with the government in introducing flowers and ornamental plants to Guatemala, and improving cultivation and propagation technology. In 2000, it constructed two new greenhouses, completed irrigation construction on a half hectare of land, cultivated 43 varieties of flowers, grew 68,327 flowers, and conducted a seminar for 42 people.

# **Honduras Technical Mission**

The goals of the Paddy Rice Project are to establish a three-grade seed rice propagation system, produce high-yield seed rice, increase productivity, and stabilize rice output. In 2000, the project selected Comayagua, in central Honduras, for the cultivation of foundation seed and the transfer of commercial seed cultivation technology to local farmers. It produced 233,200 kg of foundation seed and commercial seed (enough to cultivate 1,036 hectares of rice). The project assisted in reclaiming 21 hectares of breeder seed land and 11.7 hectares of commercial seed land, while promoting seed rice cultivation on 37.9 hectares through both technical instruction and microlending, and it trained 124 households.

The Fruit and Vegetable Project reclaimed 4 hectares for seed and seedling production. It produced 6,000 fruit seedlings, and promoted grape cultivation on 8 hectares and vegetable cultivation on 60 hectares. The mission trained 97 farmers in vegetable cultivation and 90 farmers in fruit growing. The export of vegetables earned US\$875,000 in foreign exchange.

The Hog Breeding Project is improving the quality of local pork, increasing productivity, promoting pork consumption, and raising the incomes of hog raisers. During the year the mission trained 1,649 people and 261 households. The farm produced 4,976 piglets and 726 superior breeder sows, and succeeded in accumulating a fund of about US\$460,000.

Through the Aquaculture Projects, fish farming specialists are training local people to raise tilapia. The technical mission successfully transferred the tilapia cage culture project to the Lago Yojoa Fishermen's Association, completed 52 aquaculture cages, promoted 40 cages, and trained 96 people. They produced 800 superior breedstock fish and 165,000 tilapia fry, and also developed a saltwater cultivation technique that led to a harvest of 5,000 pounds of tilapia.

#### **Nicaragua Technical Mission**

In the Hog Raising Improvement Project, the ICDF is planning a new 8.5hectare hog farm in Nicaragua's Rivas province. The farm, to be completed in early 2001, will produce disease-free hogs, improve stock quality, and expand the market for Nicaraguan hog exports. The project raised 296 breeder sows, sold 4,069 hogs, and trained 617 hog farmers.

The Horticultural Crop Improvement Project promoted vegetable cultivation to 23 households, which produced crops valued at US\$208,050. Total vegetable exports reached US\$555,559 and domestic sales totaled US\$103,846. The project reclaimed 1.8 hectares, promoted vegetable cultivation on 103 hectares, and trained 346 people. It also raised 45 pounds of loofah and balsam pears for seed. A small farmer loan program is planned, as is Spanish language training for students in the mission's production and marketing class. The Oil Crops and Rice Production Improvement Project is establishing a three-grade seed rice propagation system. Under this project, the mission reclaimed 67 hectares of land, promoted oil crop and rice cultivation on 12,096 hectares, and trained 1,287 people. It also produced 22,044 kilograms of original progenitor and progenitor seed and harvested an additional 258,887 kilograms of rice seed.

# **Panama Technical Mission**

In the Vegetable Seed Production and Cultivation Project, the mission is using seed vegetable fields for propagation of vegetable and melon seed (as well as the production of rice and maize seed during the rainy season). The mission reclaimed 3.6 hectares of land, promoted seed cultivation on 161 hectares, produced 1,348 kilograms of superior vegetable seed, and trained 86 people.

The Fruit Tree Horticultural Project is promoting the cultivation of fruit and nut trees (mango, papaya, cashew) as a means of increasing agricultural output and improving the environment along Panama's Pacific coast. The project reclaimed one third of a hectare, promoted fruit tree cultivation on 47 hectares, and trained 54 people.

The Marine Shrimp Breeding Project will provide advanced training in shrimp raising to technical personnel. The mission is collaborating with the Panamanian Fisheries Office and the Department of Agriculture and Animal Husbandry in the artificial breeding of disappearing local fish species. The project propagated 2,039,000 late-stage shrimp fry on 32 hectares, raised 166,012 tilapia fry in 22 cages, and trained 54 people.

The Fishing Village Development Project is providing technical assistance and helping to keep the fishing cooperatives on a sound footing. The project provided direction to four fishermen's cooperatives and directed the establishment of a new fishermen's organization. Three other fishermen's organizations have registered for government approval and establishment. The project has trained 252 people, and preparations are being made to offer microcredit to fishermen.

# **Paraguay Technical Mission**

The Agriculture/Livestock Extension Center Project is organizing an array of activities and projects to aid Paraguayan farmers. In 2000, the project worked on the reclamation of 16 hectares of land, promoted agriculture and livestock extension to 539 households on 1,327 hectares, and trained 841 personnel.

The vegetable component of the Horticulture Project is organizing production/ marketing teams, establishing a marketing system, expanding production capacity, and promoting vegetable exports. It reclaimed 10 hectares of land, promoted horticulture extension to 203 households on 109 hectares, trained 3,624 people, and held 25 marketing seminars.

The Hog Raising Project is breeding superior hogs and providing training in their raising, thus helping to expand Paraguay's pork exports. The technical mission has been working with the Paraguayan Department of Agriculture to eliminate swine fever and Newcastle disease in poultry. The mission donated 266,000 swine fever vaccine doses and 1,701,000 Newcastle disease vaccine doses to Paraguay.

# Europe

## **Macedonia Technical Mission**

As part of the Investment Promotion Project, the ICDF Macedonian mission completed four investment promotion initiatives in 2000: the Compost Investment Project with Bonum; the wooden window manufacturing investment project with Lesnina; the chicken raising project with Taiwan's A-Win Co. Ltd.; and the PP woven bag investment project with LPI.

In addition, the mission completed two reports about the industrial situation in Macedonia, and assisted in setting up organizational statutes for the Macedonian commerce promotion office and the Macedonian commercial promotion and consulting committee. It also completed a report on strategies for SME development in Macedonia, provided advice to the Macedonian government and national industries, and arranged 18 inspection tours for visiting Taiwanese investors.

In view of Macedonia's current export situation, the ICDF's Export Promotion Project mission is helping the country strengthen its export promotion capability, develop new export markets, and establish suitable mechanisms to help local firms increase exports. In 2000, the mission provided advisory services to Macedonian government economic agencies, completed 142 commercial service cases, served 67 Taiwan investors, and conducted 10 training seminars. Small and medium enterprises are expected to be the principal sector contributing to Macedonia's economic development. The ICDF Macedonian SME Development Project assisted SMEs in 70 cases, completed eight investigations of industrial development, and conducted 17 workshops.

The goal of the Small Hog Farmer Production Technology Improvement Project is to provide the farmers with modern production technology, boost hog raising profits, and increase pork production in Macedonia. In 2000, the ICDF project produced 2,752 breeder sows, 2,152 piglets and 15,778 other hogs. In addition to promoting hog farming, the project provided consulting services to farmers and organized three promotion/information meetings for 90 people.

# Middle East

#### **Bahrain Technical Mission**

The objective of the Horticulture Project is to develop large-scale flower and fruit tree nursery propagation techniques in Bahrain. The project reclaimed three hectares, promoted India jujube cultivation to 32 households, grew 1,000 papaya seedlings, trained 38 people, and propagated 50,000 trees to be provided to the Bahrain Agriculture Department.

## **Saudi Arabia Technical Mission**

As part of the Agriculture/Fisheries Project in Saudi Arabia, the ICDF technical mission provided substantial veterinary and aquaculture services in 2000. The mission assisted in propagating 60,000 freshwater tilapia fry and 959,500 saltwater tilapia fry, and helped fish farmers to harvest 21.2 tons of India shrimp per hectare. It also trained Saudi Arabian veterinary personnel in parasite examination and diagnosis, conducted 345 examinations, and completed diagnosis of 121 blood and serum sample cases.

Through the Transportation Technology Cooperation Project, specialists from Taiwan are helping to resolve Saudi Arabia's transportation and road engineering problems. In 2000, two Hifnat Al-Duhynah Link Road branches were completed—the 25.4 Bahar Masloom Link, and the 16.7 Hanabeg Link. Budget preparations were completed for the Mulaiha/Um Assawad Roads project, the Jizan Preventive Maintenance Project No. 2, and the R.O.R.M. Preventive Maintenance project.

The ICDF printing technology project in Saudi Arabia is ongoing.