



### ***International Food and Agricultural Development: A “Win-Win” for Developing Countries and the United States***

When Representative James McGovern of Massachusetts testified before a Senate subcommittee regarding the success of a school feeding program in Indonesia conducted by ACDI/VOCA and Land O'Lakes. He noted: *“My staff discovered that Section 416(b) programs conducted in Indonesia from fiscal year 1998 through 2000 led to increased commercial sales of U.S. agricultural products of approximately \$200 million in calendar year 2001!”* In addition, McGovern called food and development aid abroad *“a way for the United States to not only contribute to the international effort to reduce hunger and poverty by the year 2015, but also to protect our national security and demonstrate America’s values, character and priorities.”* In other words, investing in international food and agricultural development produced a “win” both for Indonesia and the U.S. -- not only were dire food needs addressed, but U.S. food aid stimulated commercial sales of U.S. products.

Is the Indonesian example a special case or a common occurrence? How do “win-win” agricultural development projects work in a practical sense in today’s global economy? These were questions we set out to answer in *“Food: The Whole World’s Business: Investing in International Agriculture and Food Systems Development for the Mutual Benefit of the United States and Developing Countries,”* a case study series published by the Association for International Agriculture and Rural Development (AIARD).

We began by issuing a call for cases to a variety of U.S. and international institutions engaged in international agriculture and food systems development. We received an array of responses that suggested that “win-win” development successes could be documented in five major areas: (1) expanding trade and developing business; (2) ensuring safe, high-quality food; (3) sharing scientific knowledge and information; (4) solving environmental problems across borders, and (5) preparing human capital for a global economy. Following is a sampling of case studies from each of these areas.

#### ***Expanding Trade and Developing Business***

Approximately one-fifth of U.S. agricultural production is now exported. The greatest potential for U.S. market expansion is in developing countries, which already buy two-thirds of our exports. U.S. investments in related businesses overseas help generate the long-term income growth those countries need to be good customers for U.S. products. Case studies in this section (three were contributed by ACDI/VOCA) illustrated the two-way benefits resulting from: 1) helping emerging market economies; 2) assisting a particular commodity group and 3) producing strategic information for both U.S. and developing country producers that are seeking to expand trade and develop business.

In the area of “win-win” benefits derived from helping emerging market economies, one case study describes the collaborative work of ACDI/VOCA, USAID, and USDA to develop a domestic seed industry and a local credit cooperative in the Republic of Georgia, with emphasis on maize, wheat, sunflower and potato production. The resulting grassroots economic expansion, the obvious “win” for local producers, has helped confer stability on a country that has experienced much conflict over the past decade. At the same time, U.S. agricultural machinery manufacturers benefited from increased exports to farmers who could expand their investments through access to new credit. U.S. seed producers are testing their seed varieties under local conditions and foresee the development of a lucrative export market.

## ***Ensuring Safe, High Quality Food***

Preventative and curative “win-win” investments to ensure safe, high-quality food produces benefits that are shared widely in today’s global economy. Protecting U.S agriculture from pests and diseases that may originate outside our boundaries keeps farm output up and sustains the flow of commodity exports. Helping other countries improve their food quality makes food safer for the developing country and the American food import consumer.

One case example involved reducing chemical residues on snow peas, a temperate climate crop that is cultivated in Guatemala’s central highland districts by 20,000 small producers and consumed widely in the United States. Over the years, insect and disease infestations had led Guatemalan farmers to rely excessively on chemical control measures. When a leaf miner outbreak occurred there in 1995, excessive chemical use in Guatemala led the United States Department of Agriculture to impose a Plant Protection Quarantine (PPQ) on all Guatemalan snow peas passing through U.S. ports of entry. This represented a loss of US\$40 million to Guatemalan farmers and a loss of equal value in snowpeas for the U.S. consumer.

A cooperative project, involving a local university; ICTA and the Ministry of Agriculture in Guatemala; Purdue, Ohio State and Virginia Tech Universities (Integrated Pest Management Collaborative Research Program); and USDA’s Agricultural Research Service and Foreign Agricultural Service worked to: 1) implement strategies to reduce pesticide application; 2) help work out a pre-inspection program that facilitated later exports to the U.S.; and 3) lift the Plant Protection Quarantine. Guatemalan farmers had their source of livelihood back and U.S. consumers once again had snow peas safe for consumption.

## ***Sharing Scientific Knowledge and Information***

Collaborating internationally on research and knowledge transfer is essential for solving the world’s food problems. Cases fall into four distinct groups: 1) global research on a single agricultural commodity across many countries; 2) research on specific production-reducing problems (such as invasive weeds); 3) research to prevent post-harvest losses from spoilage and reduce contaminants beyond the farm gate and 4) “research on research” that makes the global research system more productive and cost-effective.

One of the most impressive examples is the work on wheat and rice by the Consultative Group on International Agricultural Research (CGIAR). This work launched the “green revolution” overseas by developing short-stature, disease-resistant wheat and rice varieties. Perhaps less well publicized were the International Food Policy Research Institute (IFPRI) estimates that, from 1970-1993, these same improved crop varieties produced up to **\$13.7 billion in benefit for U.S. wheat farmers and roughly \$1.0 billion of benefit for U.S. rice farmers**. The costs of the research efforts to the US were \$71 million for CGIAR wheat improvement activities and \$63 million for CGIAR rice research in the 1970-1993 period. This was a spectacular rate of return on investment to the U.S. economy though the work was conducted overseas and also benefited foreign producers handsomely.

The cases in this group show that: 1) research and knowledge transfer have produced high returns for each dollar invested, both overseas and in the U.S.; 2) biological diversity has been expanded through research; 3) cross-country cooperation in research has been strengthened, resulting in less duplication; 4) post-harvest research has not only boosted production, but greatly reduced food waste and 5) projects have developed methods and skilled professionals who have improved on the research process itself, reducing its costs and increasing its positive impacts on the global economy.

## ***Solving Environmental Problems Across Borders***

Problems affecting the precious natural resources upon which agriculture depends frequently extend beyond national borders and require cross-country collaborative investments and solutions. Cases in this group revealed that techniques for sustainable resource management devised overseas are usefully applied in the U.S.; that solutions to environmental problems often require good collaboration between private and public institutions; and that costs for this type of cooperation tend to be somewhat higher than for other types of “win-win” projects documented in this study.

One case addresses a problem in Central America, where burning of the land is a generalized farm practice that has tragic consequences for human health, the environment, and the economy of the nation and the region. In 1997, burning provoked airport closings in Tegucigalpa, Managua, San Salvador, Mexico City, and in the southern United States. President Clinton called attention to the problem and committed resources to prevent it. In two years, there was an 80 percent reduction in the area burned. Benefits in Central America and in the U.S. were reduced pollution, smog and health risks, plus improved carbon absorption as a result of forest conservation.

### ***Preparing Human Capital for a Global Economy***

Perhaps some of the best “ambassadors” the United States has in other countries are university students from developing countries who form life-long friendships and professional relationships while obtaining U.S. academic degrees. As well, short-term training opportunities can build the foundation for trade and improved international collaboration. Targeted short-term training to help developing country professionals address a specific problem, for example, can deliver sustainable results for the developing country and cement long-term relationships that have important payoffs for the U.S.

One case involves training 67 South African professionals in agricultural business and trade development, management, marketing, policy development and agricultural technology transfer through the Cochran Fellowship Program (CFP), administered by the United States Department of Agriculture. After the training, 15 percent of the participants were promoted, almost 60 percent were assigned increased job responsibilities and 15 percent started their own businesses. Based on their CFP training, participants also contributed to agricultural policy development at both the provincial and national levels. The U.S. side of the “win” involved expanded U.S. commodity and technology exports to South Africa, a program of collaborative U.S.-South African research, new agreements with U.S. universities for training and the dawn of a more positive attitude toward sharing information and trade opportunities.

### ***Conclusion***

At least two generalizations can be added to those already made about these cases. First, investments made by countries that collaborate in international agriculture and rural development programs were remarkably low, compared to the resulting benefits of production, consumption and trade. Many of the projects analyzed produced spectacular net economic benefits and a great deal of leverage per U.S. tax dollar invested.

Second, the direct involvement of U.S. professionals and citizens in international agricultural projects forged long-term positive relationships among participants from a variety of countries. Through these lasting personal ties, not only were trade and businesses expanded, but common problems were solved by working together, people became better prepared for success in the global economy and the trust and confidence built contributed to the peace of nations.

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