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an update on
the work & progress at
IFDC—An International Center for Soil
Fertility and Agricultural Development

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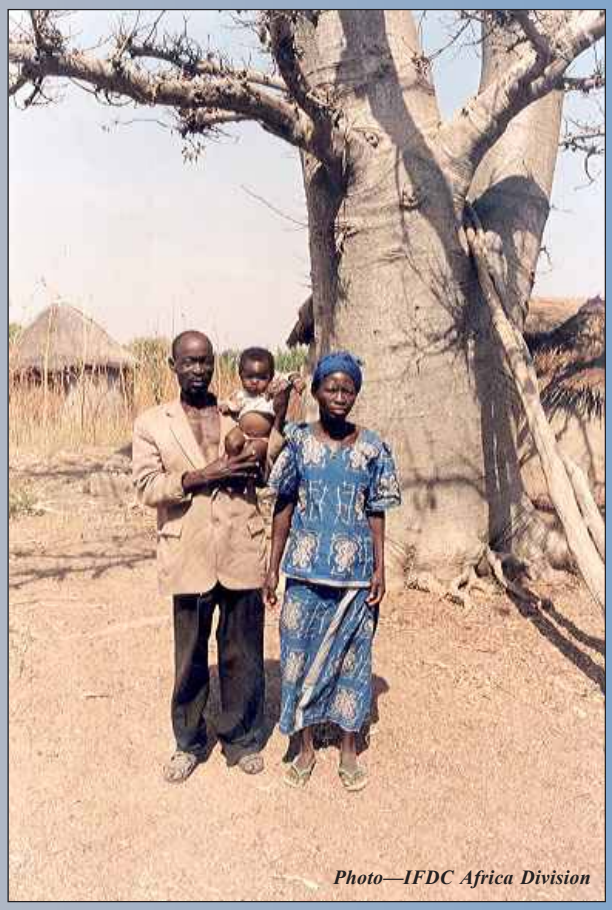
Togolese Farmer Innovators Harvest Benefits of Integrated Soil Fertility Management

IFDC's Integrated Soil Fertility Management (ISFM) project has developed an innovative approach to agricultural development. This approach aims at stimulating a rapid dissemination of information and knowledge about ISFM among farmer organizations, associations of agricultural input dealers, and policymakers at the village and regional levels. The ISFM project is currently conducted in seven countries in West Africa, facilitated by IFDC and partner organizations such as the national agricultural research and extension services and nongovernmental organizations.



Photo—IFDC Africa Division

Two of the farmers who have benefited from this technology are the Togolese farmers, Madja Koumboguidja and his wife Gbanyab. With their five children, Madja's mother, a daughter-in-law, and a grandson, they live on a 3-ha farm that Madja inherited. They grow millet, pigeon peas, cotton, and a small amount of tobacco and rice. Their region receives about 1,000 mm of rainfall annually. Soil fertility is very low and is the main agro-ecological factor limiting crop production. The husband and wife farmers have developed and adopted many ideas related to improving soil fertility so that they can make a living from their small farm. Their innovative farming system is based on integration of crop, livestock, and agro-forestry elements, which enable them to gradually intensify agricultural production, using a combination of organic and mineral fertilizers. When Madja inherited his farm, fallowing of fields—as his father had done—was no longer possible because of population pressures. Times were very hard, and hunger was a fact of life. This situation pushed Madja and his wife to explore possibilities for innovation and made them the eager learners they have become. The innovative farmers purchased new agricultural equipment such as a plow and an oxcart for carrying compost to the fields. Madja says that in a good year he can triple his production with the use of compost and erosion control. After obtaining credit to purchase mineral fertilizer, Madja has quadrupled his yields. Other innovations on their farm include crop association, rotation, and diversification. For each primary soil type, Madja developed a different management strategy. These strategies are very diverse and often complex because the dosage and type of fertilizer applied varies with soil type, the history of the specific fields, the amount and period of rainfall, the crop association, the rotation, and the availability of financial resources at that time. The innovations that helped Madja and his family to increase their agricultural production have enabled him to feed his family, buy agricultural equipment, and increase the number of animals he owns. It also allows him to buy mineral fertilizer not only on a credit basis but also with cash. His increased income has also made it possible for his family to buy new clothes for special occasions, and the old ones have become working uniforms. His family can now afford to buy shoes, and last but not least, Madja and his wife are able to send all of their five children to school. ♦

If you would like to receive monthly electronic updates concerning the work of IFDC, please send your email address to mkthompson@ifdc.org. Thank you.

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IFDC is a public international organization (PIO), governed by an international board of directors with representation from developed and developing countries. The nonprofit Center is supported by various bilateral and multilateral aid agencies, private foundations, and national governments. IFDC focuses on increasing and sustaining food and agricultural productivity in developing countries through the development and transfer of effective and environmentally sound plant nutrient technology and agribusiness expertise.

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Father of the Green Revolution Presents IFDC's Third Travis P. Hignett Memorial Lecture

Photo by Charles E. Butler

"Feeding 10 billion – can it be done?" Concerning mid-century world population projections, Dr. Norman E. Borlaug says, "Yes, it can be done without destroying the environment."

The Nobel Peace Prize recipient visited IFDC and the Tennessee Valley Authority (TVA), where he presented on March 14, 2003, the Third Travis P. Hignett Memorial Lecture, which was entitled "Feeding a World of Ten Billion People – the TVA/IFDC Legacy." Known as the father of the Green Revolution, Borlaug was awarded the Nobel Peace Prize in 1970 for research that prevented millions of people from starving. Hignett, whom the Lecture Series memorializes, was an IFDC/TVA scientist, known worldwide as the "Father of Fertilizer Technology." During Dr. Borlaug's stay in Muscle Shoals, the four Shoals area mayors proclaimed him to be an "Honorary Citizen of the Shoals Area."

As President of the Sasakawa Africa Association, Borlaug collaborates with President Jimmy Carter's Global 2000 program to spread the Green Revolution to sub-Saharan Africa. He also serves as a consultant to the International Maize and Wheat Improvement Center in Mexico. At Texas A&M University, he is a Distinguished Professor in the Soil and Crop Sciences Department. Speaking of Borlaug's legacy, IFDC's President and Chief Executive Officer, Dr. Amit H. Roy says, "He has dedicated his career to the issue of global food security."

Regarding the TVA/IFDC role in world food security, Borlaug has stated "If high-yielding varieties were the catalyst, fertilizer was the fuel for the Green Revolution." He recognizes that without chemical fertilizer, the full potential of the high-yielding varieties would not have been realized and millions of people could have starved to death.

"On a global scale, world cereal production increased from 728 million tons in 1950 to more than 2,000 million tons today," Borlaug said. "If the world had attempted to produce the cereal harvest of today with the technology (yield) of 1950, it would have required 4,500 million acres of land of the same quality—an increase in cultivated area of 2,875 million acres over the 728 million acres that were actually used."

Even in regions where land is more abundant, the adoption of high-yielding agriculture has spared millions of acres for other uses. How many square miles of forest would have been destroyed? How many species of plant and wildlife would have been pushed to extinction, if traditional low-yielding agriculture had continued? Borlaug asked.

"With respect to the issue of organic farming, farmers should strive to return organic matter and nutrients to the soil, through appropriate crop rotations, and use green manure crops and animal manures," he says. "That alone, however, is not sufficient, and we need chemical fertilizer. Somehow, we have failed to communicate to the public that it makes no difference to a plant whether the nitrate ion it consumes comes from a bag of urea or from decomposing organic matter."

Borlaug's service to humanity has extended throughout much of his life. "I have been working in food production programs in developing nations for six decades," he says. "During this period I have seen much progress in increasing the yields and production of various crops, especially

(Continued on page 3)

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the cereals, in many food-deficit countries. Clearly, the research that backstopped this progress has produced huge returns. Yet hundreds of millions of poverty-stricken people are unable, due to unemployment or underemployment, to purchase the food they need, despite its abundance in world markets."

The world-renowned benefactor to the poor and hungry has high hopes for the future. "Fortunately there are many improved agricultural technologies—already available or well advanced in the research pipeline—that can be employed in future years to raise crop yields, especially in the low-income food-deficit countries where most of the hunger and poverty exist," he says.

"Yields can still be increased by 50%-100% in much of the Indian sub-continent, Latin America, the former Soviet Union, and Eastern Europe, and by 100%-200% in much of sub-Saharan Africa, providing political stability is maintained, bureaucracies that destroy entrepreneurial initiative are reigned in, and their researchers and extension workers devote more energy to putting science and technology to work at the farm level." ♦

Urea Deep Placement Technology Increases Farmers' Yields and Enhances Quality of Life

IFDC has developed a urea deep placement (UDP) technology package to increase rice yield with reduced nitrogen fertilizer application and reduced nitrogen loss that has been successfully adopted in Bangladesh and introduced in Nepal and Vietnam.

Basically, UDP technology involves the deep placement application of urea supergranules (USG). USG is placed in the puddled soil by hand between four alternate hills of rice at a depth of 7-10 cm about 3-7 days after transplanting rice. Although this method of nitrogen application increases labor time compared with broadcasting urea, UDP has led to yield increases of 0.5-1.0 tons/ha over traditional methods that use nitrogen rates of 40-60 kg/ha. The potential yield increases through the use of USG have prompted the interest of national and international organizations to demonstrate this fertilizer technology on the fields of farmers in developing countries. The agricultural technology of USG and the nitrogen management practice of deep placement hold promise for those developing-country farmers who cultivate rice on small plots where increased yields are of critical importance.

IFDC has demonstrated that a wide range of benefits can be expected from the use of UDP in appropriate locations. The approach brings about a 25% increase in urea efficiency, which leads to approximately 35% improvement in revenues. This work has demonstrated that poor rural farmers can improve rice yields from UDP with less fertilizer—1,000 kg/ha more during irrigated dry seasons and 750 kg/ha more during wet seasons when using one-third less urea than the recommended rate. For many small landholders, that means food self-sufficiency and food security. Once households are food secure, increased productivity can contribute to improvements in the quality of life. This program has shown that many small landholders are adopting the practice; hence, the technology is adaptable.

The benefits of the technology are wide ranging:

- For farmers—Decreases production costs, increases yield, and increases profit.
- For entrepreneurs—Provides a new area of business and profit and opportunity to contribute to economic development.
- For the national economy—Increases rural employment, increases paddy production, saves urea, and increases gross domestic product (GDP).
- For the environment—Decreases air and water pollution.

A new IFDC publication entitled *Innovative Rice Fertilization and Nitrogen Use Efficiency in South and Southeast Asia*, IFDC Technical Bulletin T-68, discusses this technology in detail and will soon be available online at www.ifdc.org. ♦

Announcements

Dr. Ruth Oniang'o, a member of IFDC's Board of Directors, was recently tapped to be a member of the Kenyan Parliament.

Dr. Roberto Rodrigues, a member of IFDC's Board of Directors, has been named Brazil's Minister of Agriculture.

Dr. Maria Wanzala was recently employed by IFDC as an economist in the Market Development Division. Prior to joining IFDC, Wanzala received a Ph.D. degree in agricultural economics from Michigan State University. Wanzala, a Ugandan citizen, received the Dissertation Research Award from the Rockefeller Foundation.

Dr. Raymond J. Clark has been employed as Resident Advisor—Kosovo Feed for Poultry Project in the Market Development Division. Dr. Clark received a Ph.D. degree in agriculture and extension education from Michigan State University (MSU). He previously served as County Extension Director/District Farm Management Agent and Adjunct Assistant Professor in the College of Agriculture and Natural Resources' Department of Education and Communication Services at MSU. His international experience includes serving in Moldova as a volunteer for the Citizens Network for Foreign Affairs and working with the U.S. Department of Agriculture's Marketing Assistance Project in Armenia.

Kosovo Project Yields Outstanding Accomplishments

Photo—IFDC Kosovo

The success of the ADI Poultry Farm under the leadership of Abdurrahman Konjufca symbolizes the impact of IFDC's work in Kosovo. With IFDC's help this entrepreneur was able to invest nearly US $1 million in his business after the war.

Konjufca is a prime example of a new generation of entrepreneurs in Kosovo. These businessmen are willing to take calculated financial risks, which are necessary for the development of a healthy free market economy.

The Kosovar poultry farmer had worked for 7 years for a state-owned Kosovo egg producer but, like all other Kosovar Albanians on staff, he was dismissed because of new Government policies. He was able to establish the now prosperous private egg production company, ADI. Konjufca is modernizing and expanding his business with the credit extended to him by the American Bank of Kosovo and others. This credit helped him to increase his production capacity from zero (immediately after the conflict) to 53,000 layers and 77,000 pullets. He was able to upgrade the company's technology this year with machinery from Slovenia. Furthermore, he was able to invest in repairs on his caging system. This Kosovar poultry farmer is just one of many farmers and entrepreneurs who were assisted by the IFDC agribusiness project in their country.

Within the span of only 2-1/2 years, the IFDC Kosovo project, which was concluded in early 2003, chalked up numerous achievements. From the very beginning the project was confronted with a myriad of constraints that included the absence of:

- A market system for agricultural inputs, partly because of the loss of previous suppliers.
- Technology-transfer mechanisms to farmers to increase low crop yields.
- Favorable policies and regulatory framework to stimulate agribusiness.
- Access to credit for agricultural inputs dealers and agribusiness in general.
- Trade associations and other mechanisms to introduce, promote, and sustain change.

The IFDC/Kosovo project was successful in addressing those constraints in a well-focused and realistic manner, served as a beacon of private sector-led development in the rural sector, and helped establish effective backward and forward linkages using trade associations as the catalyst.

Highlights of the Kosovo project's achievements include:

- Strengthening of three young trade associations, establishment of an Alliance of Kosovar Agribusiness (AKA)—composed of agricultural trade associations—as the main voice of private agribusiness, and the provision of tools for effective advocacy and influence by AKA.
- Development of policy advice on issues affecting agriculture, including taxation, trade, regulation of inputs, commercialization of land and assets, and food safety and quality control.
- Implementation of an extension and field demonstration program that helped Kosovo significantly increase yields of its primary crops (wheat by 29% and maize by 25%, for example) and the introduction of new crops, e.g., soybeans.
- Introduction of modern technologies through farmer field demonstrations and other means that produced yield increases of 69% and net added income of US $200/ha for wheat and 150% and US $726/ha for maize.
- Assistance provided to 7,000 farm family participants in the extension program to increase their average income by more than US $350.
- Increased availability and use of agricultural inputs.
- Doubling of egg production to 160 million, which reduced Kosovo's dependence on imported eggs by nearly 50%.
- Generation of US $16 million in credit for agribusiness enterprises and US $15 million in agribusiness investment.
- Increased agricultural inputs sales of 64% from the 2000 base year to US $18 million in 2002, flour production by 75% to US $11.7 million, and eggs and milled feed by 50% to US $16.8 million.
- Doubling of employment of agricultural enterprises to 2,000 people.
- Expansion of regional and international trade and other networks for clients. ♦

Policy Workshop in Baku, Azerbaijan, Proves to be a Resounding Success

The President of the Association of Agribusinessmen of Kyrgyzstan—Asilbek Jeenbekov—appreciates the opportunity of attending a recent IFDC policy workshop in Azerbaijan. "Private sector dealers confront many constraints such as lack of access to credit and information, unfavorable tax policies, absence of truth-in-labeling legislation and enforcement, delays in registering new seed varieties, and other impediments," says Jeenbekov. "During the Baku workshop I discovered that I am not alone—entrepreneurs in most of the countries in our region have similar challenges."

The workshop that IFDC staff recently conducted in Azerbaijan may provide the spark that is needed to remedy the unfavorable situation in these countries. The workshop entitled "Designing Policies and Institutions That Promote Competitive Agricultural Input Markets in Transitional Economies" was conducted in Baku during April 7-11.

The fourth in a series of policy training workshops, this event attracted 51 participants from 8 countries: Albania, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. "The purpose of the workshop was to promote the development of agricultural inputs markets in the transitional economies through appropriate policies and supportive institutions," says Dr. Balu L. Bumb, Workshop Leader. "The activity focused on the issues related to the development of seed, fertilizer and crop protection products (CPPs) and agricultural systems in general."

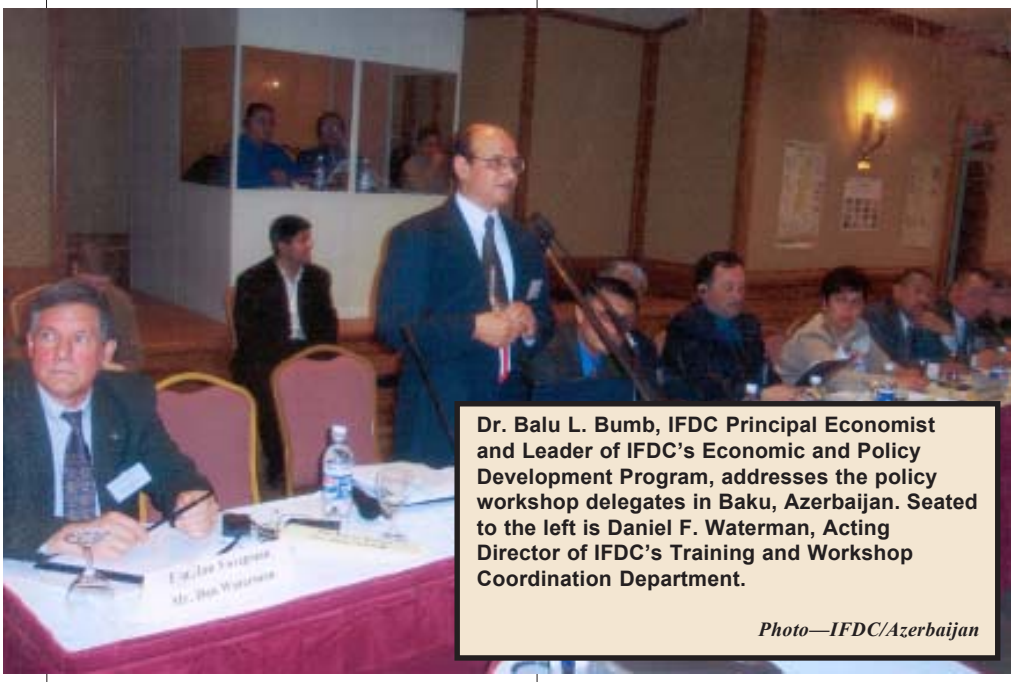
The workshop's main objectives were to:

- Assess the functioning and performance of input supply systems in transitional economies.
- Identify the policies and institutions needed to develop well-functioning inputs markets.
- Share experiences and lessons among different country participants

The Mission Director of the U.S. Agency for International Development (USAID) in Baku, William D. McKinney, opened the workshop. In his presentation McKinney stressed that well-functioning inputs markets are essential for modernizing agriculture and creating wealth in rural areas and promoting national well being. His opening remarks were followed by a keynote address by Richard Lacroix, Senior Advisor, Agricultural Processing, Europe and Central Asia Region, World Bank, who identified policy and institutional constraints and options for developing agricultural markets. Lacroix stressed the need for creating favorable policy environments and supportive regulatory systems for markets and agribusiness development and identified areas where government regulation of economic activity may be desirable. Representing IFDC during the workshop were: M. Feisal Beig, IFDC Senior Marketing Specialist; Dr. B. L. Bumb, IFDC Principal Economist; Manfred J. Smotzok, Chief of Party, IFDC/Azerbaijan; Channing A. Sieben, Chief of Party, IFDC/Kyrgyzstan; and Daniel F. Waterman, Acting Director, IFDC Training and Workshop Department.

Following the keynote address a series of lectures focused on various thematic issues such as macropolicy issues, market development issues, and capacity building for market development. Participants were assigned to one of three discussion groups to review the program, identify common issues and constraints, and make suggestions for improvement. All presentations were made using simultaneous translation.

The workshop was designed to expose participants to global issues confronting the agricultural inputs industry and to provide a common background in several areas such as pricing, marketing, and the role of the government and the private sector in successful transitions. Each of the participating countries provided a brief glimpse of the situation in their home country. This provided the informational base to enter into the discussion groups and try to identify commonalities and ideas for the future. ♦



Dr. Balu L. Bumb, IFDC Principal Economist and Leader of IFDC's Economic and Policy Development Program, addresses the policy workshop delegates in Baku, Azerbaijan. Seated to the left is Daniel F. Waterman, Acting Director of IFDC's Training and Workshop Coordination Department.

Photo—IFDC/Azerbaijan

West African Partners Launch the MIR Project

The first meeting of the Marketing Inputs Regionally (MIR) project was held in Lomé, Togo, during March 4-5, 2003. With its key partners—the West African Economic and Monetary Union (UEMOA) and the Economic Community of West African States (ECOWAS)—MIR aims to create a regional inputs market.

"The central issue we are faced with is how to make the necessary inputs accessible to farmers at affordable prices," said Dr. Baba Fada, Director of Agriculture, Federal Ministry of Agriculture and Rural Development in Nigeria. Other MIR partners include the Network of Farmer Organizations and Agricultural Producers of West Africa (ROPPA), Network of Chambers of Agriculture (RECAO), Conference of Ministers of Agriculture of West and Central Africa (CMA/WCA), private importers and dealers, and West African ministries of agriculture and regional cooperation.

To achieve this goal, MIR will accomplish the following:

- Provide platforms to create awareness and promote dialogue among stakeholders;
- Establish policies and regulations that will enable free movement of inputs across borders, protect farmers and dealers from unscrupulous business practices, and protect the environment and public health;
- Strengthen the private sector's technical and business skills to market inputs;
- Set up a regional input market information system to promote market transparency and competitiveness and develop business linkages;
- Develop an emergency plan for cotton inputs market and introduce an integrated cotton-based production system.

The participants praised IFDC for linking MIR to UEMOA and ECOWAS—two institutions that facilitate the development of regional policies. Regional cooperation and integration in input marketing are needed to provide for economies of scale, promote competition and ease free movement of inputs across borders.

"Today cotton production pays for about 85% of all fertilizers used in the cotton-growing zones; one third of that amount is applied to food crops, especially cereals," said Lompo Jamano, Permanent Secretary to the National Commission for Integration at the Ministry of Foreign Affairs and Regional Cooperation, Government of Burkina Faso.

The challenge for MIR would be to develop a cereal sector that can pay for its own input consumption. However, commercial banks are reluctant to finance agricultural activities; therefore, it is difficult to find funds for input supply.

The meeting attracted 24 participants from UEMOA and ECOWAS and from public and private sector organizations from Benin, Burkina Faso, Ghana, Kenya, Mali, Nigeria and Togo. ♦

The Burkina Faso Government and IFDC Strengthen Their Cooperation

The Honorable Minister of Finance and Budget, Jean-Baptiste M.P. Compaore, and the Director of IFDC's Africa Division, Dr. Henk Breman, on behalf of IFDC's President and Chief Executive Officer, signed a memorandum of understanding on February 10, 2003. By signing this memorandum, IFDC strengthens its support to the Burkina Faso Government by implementing policies that intensify agricultural production through ISFM.

Input supply has become a significant constraint to African countries striving to increase agricultural production and secure food for their populations. "Soil fertility improvement, input supply and marketing are among the key areas of knowledge and expertise developed by IFDC," said Breman.

IFDC is helping seven West African countries to achieve their agricultural objectives and to develop input markets in a number of countries including Afghanistan, Albania, Bangladesh, Ghana, and Nigeria. "This agreement with IFDC really comes at the right time," said Minister of State and Minister of Agriculture, Fisheries, and Waterworks, Salif Diallo.

Burkina is trying an ecological alternative with the "50,000 Compost Heaps Project." However, this cannot cover the country's global needs in plant nutrients. The Minister wants IFDC to help them implement alternatives such as:

- Developing fertilizer production in the country using Burkina's phosphate rocks;
- Securing funds needed to implement Burkina's National Action Plan for Soil Fertility Management.

"IFDC also counts on the full support of Burkina Faso for successful implementation of the MIR project. MIR will use regionalization as an instrument to facilitate timely access to good quality inputs at affordable prices for small-scale farmers," said Breman.

Those who attended the signature ceremony included the representative of the United Nations Development Programme (UNDP), representatives of the Ministry of Development and Cooperation, and the Ministry of Agriculture, Fisheries and Waterworks. ♦

Indian Farmer Cooperative Executives Visit U.S. Locations

By the end of the year, Gopal Saxena, General Manager (Cooperative Services and Agricultural Products), Indian Farmers' Fertiliser Cooperative, Ltd. (IFFCO), hopes Indian citrus producers will be eliminating the middleman. Saxena and nine other Indian agricultural officials visited Florida in April to tour vegetable and citrus operations, an organic vegetable farm, a fertilizer production facility, and the University of Florida. The group of 12 men representing two large cooperatives in India also visited IFDC Headquarters.

At IFDC, members of the Indian delegation met with their U.S. counterparts—members of the Alabama Farmers' Cooperative, Cotton Producers' Cooperative, and Gold Kist Poultry, Inc., who shared information as to how the varying cooperatives serve their members. "The consumers win, and the farmers win," Saxena said about plans for Indian farmers to market their own crops.

"They are eager to learn how our cooperative system works," said Hollis Isbell, an Alabama farmer and President of the Cotton Producers' Cooperative. During the discussion, members of the Indian delegation asked questions about the risks and benefits to farmers that belong to U.S. cooperatives. Their visit occurred as the Indian government is gradually transforming government-controlled cooperatives into more independent organizations. "While it may mean fewer subsidies, the move also means less red tape for farmers trying to succeed," said Surinder Kumar Jakhar, Director of IFFCO.

Self-sufficiency in food grain production and increase in agricultural productivity in a sustainable manner are among the primary premises of the fertilizer industry in India. To ensure timely availability of quality fertilizers and other farm inputs to the farmers, these cooperatives—IFFCO and Krishak Bharati Cooperative, Ltd. (KRIBHCO)—were formed. Both organizations are committed to strengthening and promoting the cause of modern agriculture and the 36,000 agricultural cooperatives that they serve in India. One of the primary principles of the two organizations is to impart to farmers training and education in the latest farm technology.

The cooperative system is important in India, where much of the work is done manually and a large farm is an operation of 50 acres. Land ownership in India is regulated, said Jakhar. "We have more autonomy now," Jakhar said. "We are pooling our resources because it is impossible to make it alone." ♦

Photo courtesy of IFA

Mr. U.S. Awasthi, Managing Director of IFFCO, visited IFDC Headquarters in June 2003. During his visit he made a presentation to IFDC staff. In his presentation, IFFCO's Managing Director, had this to say, "The importance of food and nutritional security has made it imperative for any country to ensure that enough food is produced to feed an ever-increasing population on a sustainable basis without depleting the natural resources and with emphasis on its equitable distribution to ensure food availability to individuals. India is no exception, therefore, self-sufficiency in food grain production has been the basic objective of India's policy on agriculture." India has met the food requirement of its population of 1,037 million through the pragmatic approach adopted by the Government to implement various programs during the past five decades. Research and development, transfer of technology, and the efforts of more than 200 million farmers and farm workers have supported this effort.

"In order to feed the predicted population of 1,200 million by 2012, India needs to attain the food grain production target of 337 million tons for which the consumption of fertilizer would have to be increased to about 28 million tons of nutrients," Awasthi says. "The chances of bringing additional land under cultivation are remote and, therefore, additional food grain production must come from an increased productivity of cultivable land." ♦

IFDC Conducts Seminar Outlining Results of Afghanistan Work

"IFDC has taken a visionary and wise path to follow in the future," says Bob Wilson, General Development Manager, USAID/Afghanistan. Wilson was commenting on the progress that IFDC has made during the past year in implementing the Emergency Fertilizer Distribution Project in that country.

When USAID and IFDC arrived in Afghanistan last year, they were in for a rude awakening. It was indeed disastrous. Many crops, irrigation systems, and other supporting infrastructure had been destroyed in 23 years of war. Production was only a fraction of what it had been when the Soviet occupation occurred. But what has been accomplished during the past year has been a massive resurgence in agricultural productivity. In fact, Afghanistan will likely be self-sufficient in wheat production this year.

On June 25, 2003, IFDC presented the results of its work in Afghanistan during a seminar conducted at the Maiwand Hall and Press Club in Kabul. Welcoming the attendees was Dr. Amit H. Roy, IFDC President and Chief Executive Officer. Representing the Afghan Ministry of Agriculture and Livestock was Sayed Abdul Wahab, who praised the work of IFDC and considered its role vital for promoting agricultural development in Afghanistan. He said "it was a great help for the Afghan farmers and the fertilizer dealer network," and saluted IFDC for introducing new types of fertilizers that were unfamiliar to farmers and dealers.

IFDC has supported and made a contribution to private fertilizer dealers through training and to 120,054 farm households through the provision of fertilizer and improved wheat seed for the fall 2002 season. That support and encouragement strengthened fertilizer dealers, improved wheat yields, and provided income for farm households in Afghanistan.

The program participants included representatives from the Ministry of Planning, Ministry of Education, Ministry of Foreign Affairs, USAID, the International Center for Agricultural Research and the Dry Areas, Chemonics International, International Maize and Wheat Improvement Center, Aga Khan Development Network, members of the media, fertilizer dealers, and implementing partners of the project.

The following IFDC officials outlined the progress that the Center has made during the past year: Ian Gregory, Director, Market Development Division; Dr. Ray B. Diamond, Chief of Party, IFDC/Afghanistan; Dr. Thomas P. Thompson, Senior Sociologist; Assadullah Mullakhil, Chief Agronomist, IFDC/Afghanistan; Hissamuddin Hashimi, Agronomist, IFDC/Afghanistan; and other project staff members.

USAID Agricultural Development Officer Terry Hardt made a presentation on "The Rebuilding Afghanistan's Agricultural Markets Program (RAMP)."

All of the discussants concurred: "Agriculture is the focal point of economic development in Afghanistan. The sector is so vitally important to the livelihood of all the people that no economic advancement will occur until that sector is again flourishing. Over 80% of the Afghan population is dependent on agriculture, and the sector is responsible for over 60% of the gross domestic product. It is incredibly important. It is vital for every person in this country." ♦

IFDC Releases New Video, "Bread for Peace: Nurturing Afghanistan's Fields of Dreams"

IFDC and its partners are convinced that agriculture is the engine that will deliver Afghanistan and other countries from the devastation of war to the prosperity of peace. A new IFDC video called "Bread for Peace: Nurturing Afghanistan's Fields of Dreams" captures superbly the work that IFDC and its partners are doing to rebuild that country's agricultural sector. The 15-minute video, produced by AGCOM International and funded by USAID, can be viewed on IFDC's front page at www.ifdc.org.

On the video IFDC's President and Chief Executive Officer, Dr. Amit H. Roy, says "When we arrived in Afghanistan in early 2002, agriculture was in desperate straits. Farmers had very little seed, virtually no fertilizer, and no credit was available. The entire agricultural infrastructure was gone."

IFDC's staff quickly evaluated the Afghan people's potential that was silently waiting to be tapped. "It was their entrepreneurial spirit—that drive to work hard—despite all they've been through that convinced us that the private sector was the place to start rebuilding the Afghan agriculture," says the Director of IFDC's Market Development Division, Ian Gregory.

Recognizing that a spark of life remained in the country's private agribusiness sector, IFDC carefully nurtured that sector back to life. Rather than dumping handouts of fertilizer and seed on a fragile market, IFDC offered farmers vouchers to exchange for fertilizer at their local dealer shops. After harvesting their wheat crops, the farmers used part of their wheat to pay for the fertilizer. The local villages are using the money for local improvements—new wells, irrigation systems, etc.

"This is vitally important, and that's why we think the work that IFDC is doing is so vital to reinvigorating the agricultural sector," says USAID's Mission Director for Afghanistan, Craig Buck. "We think that these are the kinds of results that the private sector offers to the country in a more robust and efficient manner."

Dramatic results are evident in the doubling of yields that the Afghan farmers have achieved thus far. The bread on Afghan farmers' tables is evidence that the plan is working. "If we continue to build the private sector infrastructure, market forces will work for the Afghan people," says M. Feisal Beig, IFDC Senior Marketing Specialist. "We will guarantee that they will get the chance that they deserve."

Along with its partners and with continued support from USAID, IFDC vows to help the resilient Afghan people to replace despair with hope for a better tomorrow. ♦

IFDC Makes its First Foray into Distance Learning with a Course in Integrated Soil Fertility Management

Do your professional responsibilities involve giving advice to farmers on how to improve their soil fertility management practices? Would it be beneficial to you to learn how to design and implement a program for developing appropriate soil fertility recommendations and disseminating these to farmers? Could you benefit from learning about modern methodologies and tools that can be used to assess suitability, economic feasibility, and impacts of soil fertility enhancement techniques? Are you constrained by lack of time or unable to travel long distances to attend formal training courses?

If you answered yes to any of the above questions, you would have found interesting a new course – "Integrated Soil Fertility Management," which is being conducted online during June 23—August 1, 2003. The importance of this topic is not in doubt. Substantial improvement in the productivity of agricultural systems is required to support growing rural and urban populations in the developing world, and improving soil fertility will play an ever more important role. Increasing cropping intensity and/or increased use of external inputs is perhaps the only way to meet future food and fiber needs, and care must be taken to ensure that these gains are not won at the cost of the future productivity of our finite and decreasing agricultural resources. Future strategies for increasing agricultural productivity will have to focus on using available nutrient resources more efficiently, effectively, and sustainably than in the past. Integrated management of the nutrients needed for proper plant growth, in conjunction with effective crop, water, soil, and land management, will be critical for sustaining agriculture over the long term.

This online course is drawing on the lessons learned by IFDC staff and their almost 30 years of experience in increasing agricultural productivity in a sustainable manner through the development and transfer of effective, environmentally sound plant nutrient technology and agricultural marketing. In collaboration with eLearning experts of the Asia-Pacific Regional Technology Centre (APRTC), IFDC's scientists are making this information available to interested parties anywhere in the world. In this course, participants are finding a range of Integrated Soil Fertility Management (ISFM) strategies that can be used to replenish soil nutrient pools, maximize on-farm recycling of nutrients, reduce nutrient losses to the environment, and improve the efficiency of external inputs. Specifically, registered participants are learning:

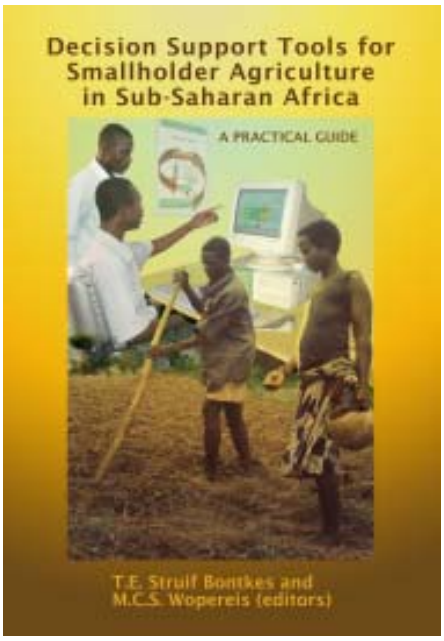
- How to apply a participatory approach to designing and implementing an ISFM program.
- What soil fertility means and what makes a soil fertile and productive.
- How to identify soil nutrient problems and opportunities.
- Soil fertility enhancing strategies that maximize profits and agronomic use efficiency.
- Methodologies and tools to assess suitability, economic feasibility, and impacts of ISFM on agricultural production, soil fertility, and the environment.
- How to promote ISFM to farmers and other stakeholders.

Perhaps the most exciting aspect of this course is that it is giving participants an opportunity to interact with a diverse group of experienced agricultural professionals from around the world. Participants are from a wide range of sectors—government, non-government, academic, and for-profit corporate. They are becoming familiar with diverse viewpoints from individuals with whom they may not normally interact. The participants are contributing and discussing controversial issues from their own unique perspectives online. Several experienced facilitators who have considerable knowledge of the subject matter and online learning are supporting the class.

This course is being taught entirely online. All that was required to participate is an interest in the topic, a reasonably up-to-date computer on which an Internet browser is installed, a connection to the Internet (even a dial-up connection), and an email and Internet account. Participants are investing approximately 5 hours per week during this 6-week course; they have basic computer skills and a good understanding of English. Participants who are new to eLearning were encouraged to first participate in APRTC's introductory course – "Digital Literacy for Agricultural Professionals." A complete schedule for this and all other agLe@rn course offerings can be found on APRTC's Website at http://www.aprtc.org. Just click on the agLe@rn tab. ♦

Since 1974 IFDC has conducted over 640 international workshops, study tours, and training programs for 8,400 participants. However, most IFDC training occurs as part of its long-term agricultural development programs overseas. In 2002, for example, IFDC's 12 overseas projects conducted 152 training programs for 7,335 participants. Similar results are expected in 2003.

Decision Support Guide To Assist Agricultural Researchers and Extension Staff



The Technical Center for Agricultural and Rural Cooperation (CTA) and IFDC recently published a book entitled *Decision Support Tools for Smallholder Agriculture in Sub-Saharan Africa—A Practical Guide.* This book is meant to assist agricultural researchers and extension staff in the selection and application of tools that facilitate decision making with a view to improving soil fertility management and agricultural productivity. The large variety of tools that are presented range from relatively simple nutrient flow mapping to more complex crop growth simulation modeling.

Case studies that are primarily set in sub-Saharan Africa provide practical examples of the use of these tools. An introductory chapter helps the reader to find the appropriate tool for a particular topic. In an annex more detailed information is provided on each tool.

This book is a result of the COSTBOX project (A Client-Oriented Systems Tool Box for Technology Transfer Related to Soil Fertility Improvement and Sustainable Agriculture in West Africa), managed by IFDC and funded by the Ecoregional Fund to Support Methodological Initiatives. The publication of this book was co-funded by CTA.

According to the editors of the book—Dr. T. Struif Bontkes, IFDC Project Scientist in Systems Modeling, and Dr. Marco C.S. Wopereis, IFDC Program Leader, Integrated Intensification Program—the guide shows that decision support tools (DSTs) can play a role in combining a more integrated approach in agricultural research and development with participatory learning and action research approaches. The publishers hope that the guide will contribute to increased knowledge and use of DSTs in sub-Saharan Africa leading to the increased efficiency and effectiveness of agricultural research and development in the region in general.

This book can be ordered online at www.ifdc.org or from IFDC's Purchasing Department by requesting IFDC—R-13; the purchase price is US $25.00. ♦

Input Subsidies and Agricultural Development: Issues and Options for Developing and Transitional Economies

IFDC has published a paper entitled *Input Subsidies and Agricultural Development: Issues and Options for Developing and Transitional Economies*, which should be of interest to donors, policymakers, and other stakeholders in dealing with input subsidies in their endeavors for food security and environmental protection.

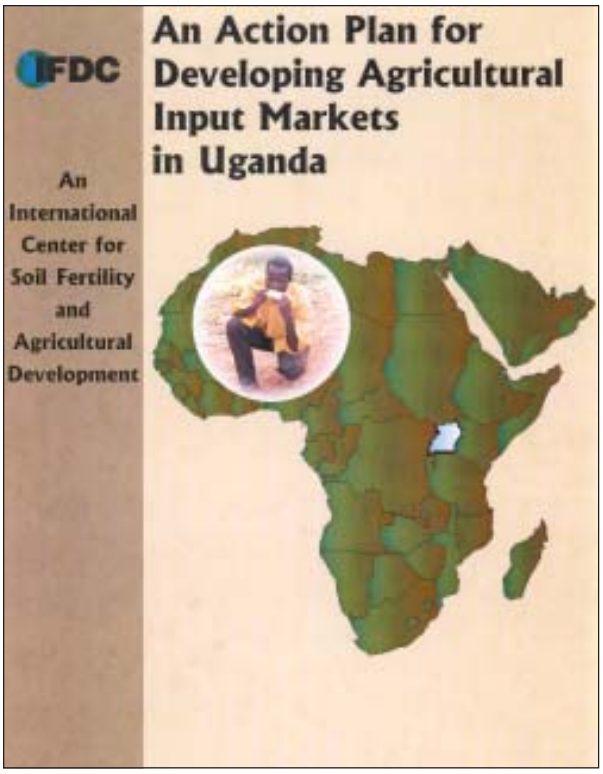
In spite of the significant progress made during the last half of the 20th century, food security remains a challenge for over 800 million persons who suffer from hunger and malnutrition and for over a billion people who earn less than one dollar per day. To confront this challenge, the United Nations has adopted the goal of reducing hunger and poverty by one-half by 2015. It is also recognized that while promoting food security, care must be taken to protect the environment.

In achieving both food security and environmental protection, the judicious application of science and technology embodied in improved seed, mineral fertilizers and other associated inputs, and an enabling policy environment are essential. With this perspective in mind and in the context of the World Trade Organization (WTO) agreements about agricultural subsidies, IFDC decided to assess the role of input subsidies in agricultural development in developing and transitional economies.

Authors of the IFDC paper include the following: Balu. L. Bumb, Program Leader, Economic and Policy Development Program, Market Development Division, IFDC; S. Kofi Debrah, Program Leader, Policy and Market Program, Africa Division; and Luc Maene, Director General, International Fertilizer Industry Association (IFA) and former Member, IFDC Board of Directors.

The paper provides an assessment of arguments for and against input subsidies (especially mineral fertilizers), reflects IFDC experiences in dealing with fertilizer subsidies in a dynamic context, proposes market-friendly alternatives to input subsidies, and identifies areas where input subsidies may be socially desirable but cautions that, even in such cases, input subsidies should be administered in a market-friendly manner so that market development efforts are not jeopardized and input subsidies are sustainable.

Interested parties may purchase copies of this paper (IFDC Paper Series 29) online at www.ifdc.org. ♦



IFDC Publishes An Action Plan for Developing Agricultural Input Markets in Uganda

Well-functioning agricultural input markets (AIMs) are the backbone of agricultural transformation in Africa. Only such markets can ensure inputs of good quality, easy accessibility, and lower prices to farmers. Hence, the goal of the recently developed IFDC action plan for Uganda is to suggest appropriate measures to create well-functioning AIMs in that country. IFDC achieved this goal by conducting an assessment of input markets in Uganda and then preparing an action plan for their orderly development. The assessment focused on the following themes:

1. Assessment of the structure, functioning, and performance of agricultural input markets—fertilizer, seed, and crop protection product markets.
2. Identification of constraints affecting the performance of AIMs.
3. Evaluation of the potential of the private sector in supplying inputs.
4. Development of an action plan incorporating measures needed to make AIMs more effective and efficient.
5. Institutional arrangements for implementing the action plan.

IFDC's *Action Plan for Developing Agricultural Input Markets in Uganda* mainly focuses on issues related to the supply side of the market equation for two reasons. First, the input supply system changed from a public sector monopoly to a private sector-based competitive market, and therefore there is a need to assess the potential and efficacy of the private sector in supplying inputs. Second, while input demand has been studied extensively, few studies have paid attention to the issues related to input supply and transaction costs, whereas a reduction in transaction costs is essential to lower input prices for small farmers. The action plan also focuses on technology transfer, output market development, and regional integration of markets that affect input demand directly and significantly. Because of its emphasis on improving the supply of modern inputs for agricultural transformation, the action plan complements and strengthens Uganda's plans for agricultural development in general and its priorities identified in the Plan for Modernization of Agriculture in particular.

The assessment of all three input markets in Uganda has clearly demonstrated that deregulation and liberalization is necessary but not sufficient to encourage private sector participation. Many factors, such as lack of human capital, limited access to finance and information, and weak enforcement of regulatory frameworks, have constrained the effective and full participation of the private sector. The removal of these constraints will help the private sector in realizing its full potential and in reducing prices and improving access to inputs. Consequently, the proposed action plan is heavily geared toward improving the supply side of the market equation in Uganda. Nevertheless, the issues involving (1) technology transfer and (2) output market development are also highlighted. These components affect the demand side by improving agronomic (nutrient use) efficiency and economic incentives (better crop prices) and help farmers in the realization of higher yields and more incomes. The following actions constitute the action plan. (The first five activities deal with supply-side issues, whereas the next two activities affect the demand side. The last activity—that is, regional integration of markets—has implications for both supply side and demand side of input markets.)

1. Creating a supportive policy environment.
2. Developing human capital.
3. Improving access to finance.
4. Promoting market transparency.
5. Strengthening regulatory systems.
6. Promoting technology transfer.
7. Developing output markets.
8. Integrating regional markets.

Interested parties may order a copy of the publication, *An Action Plan for Developing Agricultural Input Markets in Uganda* (P-28) from IFDC's Purchasing Department or via the web site at www.ifdc.org. The price of the publication is US $30.00. ♦

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IFDC
2003 Training Calendar

Training Program/Study Tour	Date	Location	Program Fee, US $	Late Program Fee, US $
1. Designing Policies and Institutions That Promote Competitive Agro-Input Markets in Transitional Countries	April 7-11	Azerbaijan	1,100	1,300
2. Agricultural Input Marketing (in French)	May 5-9	Cameroon	1,000	1,150
3. Agricultural Input Marketing	May 19-23	Malawi	1000	1,150
4. Nitrogen Fertilizer Production Technology Workshop (on behalf of IFA)	June 2-6	Belgium	3,500 (IFA) 4,000 (non-IFA)	3,800 (IFA) 4,300 (non-IFA)
5. Phosphate Fertilizer Production Technology Workshop (on behalf of IFA)	September 15-19	Belgium	3,500 (IFA) 4,000 (non-IFA)	3,800 (IFA) 4,300 (non-IFA)
6. Fertilizer Marketing Management	December 1-12	Mauritius	2,100	2,450

(Register online at www.ifdc.org)