IFDC Report

Volume 25, No. 2
December 2000

ISSN 0149-3434

http://www.ifdc.org

an update on
the work & progress at the
International Fertilizer Development Center

Soil Fertility Management Program Improves Quality of Life for African Farmers

Togbe Sodjedo, a Togolese rice farmer, has seen a marked improvement in the quality of his life since he began participating in an Integrated Soil Fertility Management (ISFM) Project, being conducted by IFDC-Africa, Lomé. Rice growing is the primary activity of farmer Sodjedo, and it appears to be a very profitable one. Because of this activity, he was able to construct a nice house on his compound, to buy additional land (2.5 ha of land, outside the irrigated area), to buy potential sites for housing, to buy a motorized cultivator, and to support his family. Besides rice, he also cultivates 1 ha of maize for home consumption.

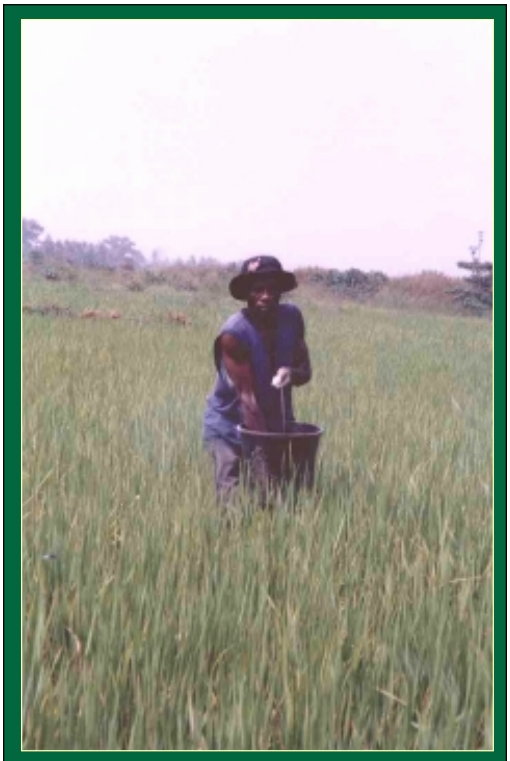

Photo of Togolese farmer by Dr. Bert Meertens, IFDC-Africa

Growing two crops per year on his 3-ha farm to which he applies 1,150 kg of fertilizer, Sodjedo receives a yield of 2,500 kg of shelled rice per ha. For one cropping period, he uses 23 bags (50 kg) of fertilizer, including 16 bags of NPK and 7 bags of urea. This corresponds to a rate of 94 kg N, 40 kg P_2O_5, and 40 kg K_2O on a hectare basis. To measure and manage the amounts of inputs, he uses a bowl. For one plot of 500 m^2, he applies three bowls of fertilizer, which corresponds to about 10 kg, during each fertilizer application. The Togolese farmer has also used natural rock phosphate and was pleased with the positive results. Of particular benefit to the farmer was the access to credit, provided by the ISFM project, through which he became a member of a self-managed savings and credit system at the village level.

Under the direction of Dr. Arno Maatman, Head of IFDC Africa's Input Accessibility Program, the ISFM project is promoting strategies that include (1) the participatory development of water and soil conservation methods and soil fertility improvement and maintenance methods, e.g., through the combination of organic and mineral fertilization, (2) the facilitation of rural organization and institution building to improve access of farmers to external inputs and to strengthen their role vis-à-vis decision makers, and (3) input- and output-market development, including credit systems. IFDC-Africa's experiences demonstrate that significant attention should be given not only to participatory research and extension of ISFM techniques as such but also to proper site selection and to participatory approaches for institutional development and for improving linkages between farmers, the private sector, and policy makers at the regional and national levels. IFDC-Africa is working closely with partner institutions, particularly the national agricultural research and extension services (NARES) and nongovernmental organizations (NGOs). In fact, IFDC-Africa plays only the role of

(Continued on page 6)

IFDC Report

Publisher:
International Fertilizer Development Center

Editor:
Marie K. Thompson
Layout/Design:
Donna W. Venable

IFDC Report is a biannual publication of the International Fertilizer Development Center (IFDC), Muscle Shoals, Alabama, U.S.A. Telephone: 256-381-6600, Telefax: 256-381-7408, E-Mail: general@ifdc.org, Web Site: http://www.ifdc.org. Unless otherwise noted, printed material published in the *IFDC Report* is in the public domain and may be freely reproduced. Source acknowledgment and a copy of any reproduction are requested. Subscriptions are free. French- and Spanish-language editions of the *IFDC Report* are available from IFDC.

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Message From IFDC's President and Chief Executive Officer

Dr. Amit H. Roy

Editor: You once stated that "IFDC is optimistic that by (1) addressing Africa's acute soil fertility problems, (2) helping develop the right policies, and (3) providing access to the tools of agricultural development, farmers in sub-Saharan Africa can transform agriculture in their countries. With continuing support, IFDC will meet that challenge!" Can you give concrete examples of what IFDC is accomplishing in these three areas to make the African dream a reality?

Dr. Roy: "IFDC-Africa has three interrelated programs that focus on the soil fertility improvement of the countries of sub-Saharan Africa. The first activity relates to agricultural intensification, which aims at developing and transferring technological packages that can trigger agricultural intensification, based on production systems that are sustainable from agronomic, economical, and environmental points of view. The second activity focuses on accessibility of inputs by creating and sustaining private agricultural input dealer networks and improving farmers' access to production inputs, taking into account gender and equity issues. The third activity aims at promoting transparent and competitive markets for inputs and agricultural products and helping national governments to create an enabling policy environment for public and private investments in soil fertility.

"The governments in many sub-Saharan African countries are recognizing the need to address declining soil fertility both from the food production and environmental protection points of view. At many of the international forums, soil fertility issues are being discussed and debated, and many countries are allocating resources to address this issue.

"Assisting sub-Saharan African countries to develop and implement right policies for improving soil fertility and agricultural productivity is a priority for IFDC. These activities have two components: policy analysis and policy implementation. The latter is much more difficult since it involves working with policymakers and other stakeholders. For example, with the structural adjustment programs most governments in sub-Saharan African countries have withdrawn from marketing of inputs to farmers. The private sector is beginning to assume this responsibility, resulting in competition in the marketplace. While this is a positive development, it also has raised an issue regarding the quality of inputs in the marketplace. To ensure that the farmers are not cheated, IFDC is helping many governments to develop "quality control" legislation through interaction with all stakeholders. The implementation of such legislation entails many activities including training of inspectors in proper sampling techniques, development of standard analytical procedures, and an effective legal system that can punish the unscrupulous marketer of inputs.

"Providing access to the tools of agricultural development—Our approach in Africa has been to develop options in a participatory way with the farmers. In the design, research, and development of the packages, farmers are an integral part of our activities. Through this participatory approach, farmers feel an ownership of the technology that is recommended (or that is selected). We have for many

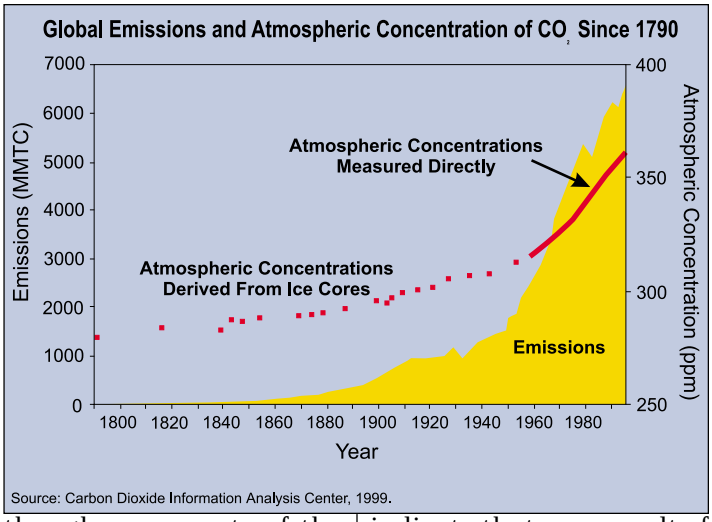
(Continued on page 3)

(Continued from page 2)

Message...

years taken the approach that the farmers need to be given options and they select the one that best suits their conditions, especially the socioeconomic conditions, and their environment. This is the way to bring about changes, and I am optimistic that this approach will pay rich dividends. I must also emphasize that IFDC is only one player in this endeavor. We must work with our partners, which include the donor community, governments, international organizations, and farmers. IFDC continues to develop strategic partnerships with all of the stakeholders; we realize that this is a big challenge that is far greater than the resources that IFDC has available."

IFDC Scientists Study Global Warming



Source: Carbon Dioxide Information Analysis Center, 1999.

IFDC scientists are engaged in a search for clues to explain the causes for the alleged phenomenon of global warming and to suggest possible solutions if air pollution is found to be the cause. Scientific evidence published by the Intergovernmental Panel on Climate Change (IPCC) indicates that increased carbon dioxide and other gases are trapping heat in the atmosphere, thereby creating a greenhouse effect and causing a warmer global climate. Other scientists argue that the hotter summers and milder winters reported in many countries in recent years have been part of a common cycle in the Earth's climate.

Dr. Walter Baethgen, an IFDC scientist and a member of the United Nations-sponsored IPCC, says that recent research indicates that air pollution from motor vehicles, coal-burning power plants and other sources do, in fact, play a role in global warming.

"There is very clear evidence that the global temperature has increased since industrialization," he said. The U.S. Environmental Protection Agency (EPA) contends that global surface temperatures have increased by as much as 1.2 degrees F since the late 1880s. The EPA reports that some scientists predict the temperature could rise by as much as 1.6—6.3 degrees by 2100 with significant regional variations.

Scientists who challenge the greenhouse theory argue that the increased surface temperatures, which are being blamed on global warming are actually caused by heat islands. These surround large cities and alter ground-based thermometers. Other climatologists report that although some parts of the world have warmed in recent years, others have cooled.

Although there is evidence to support the greenhouse theory, more research is needed to determine the exact role that pollution may play in warming the Earth's climate. Indirect effects such as changes in the lengths of seasons and precipitation patterns, changes in regional water resources, increased cloud cover, and frequency of weather extremes may also have a significant effect on agricultural productivity, in addition to direct carbon dioxide-induced changes on plant processes.

Baethgen is collaborating with other scientists to study the impacts of possible climate change on agricultural production. Although IFDC is best known for its efforts in solving food production problems by helping developing-country farmers to increase crop productivity, the global warming research is closely related.

"If there is a significant change in the climate," Baethgen says, "farmers may have to plant crops that are more tolerant of heat and drought conditions. Model calculations indicate that as a result of climate change, cereal productivity may increase in temperate regions but decline in developing countries by 5-10%. Sub-Saharan Africa and northeast Brazil appear to be particularly vulnerable."

IFDC scientists are studying types of crops that farmers may have to grow if climate changes cause agricultural problems. Baethgen and his collaborators are also studying how farmers can help reduce the role played by air pollution by planting crops that fix and sequester carbon dioxide from the air. Carbon dioxide is one of the gases that supporters of the greenhouse theory claim are helping to create global warming. It is produced when coal, oil, wood, and other carbon-based fuels are burned. Plants absorb carbon dioxide and, through photosynthesis, convert it into dry matter (food, fiber, wood). Carbon fixed by plants can remain in the form of wood for several years, and/or return to the soil as plant residues increasing the soil organic matter content.

No-till farming has been promoted to enhance the

(Continued on page 6)

Dr. Luis I. Prochnow

Photo by Charles Butler

Chemical Characterization and Agronomic Effectiveness of Acidulated Phosphate Fertilizers

Higher levels of impurity compounds in phosphate fertilizers may be expected in the future as the phosphate industry becomes more dependent on lower quality phosphate rocks for raw materials. Thus, soil scientists and agronomists are confronted with a new problem of evaluating these impurity compounds in relation to actual field performance of specific fertilizer types.

To address this problem it is imperative to recognize and understand the types and amounts of compounds (chemical characterization) present in the fertilizers. Studies dealing with modal analysis to access information on the composition of different phosphate fertilizers have been conducted at IFDC. Modal analysis refers to utilization of a combination of techniques including distribution of compounds in the fertilizer calculated from *qualitative information* on the type of compounds provided by instrumental analysis and from *quantitative information* on total elemental content of the original fertilizer and its water-leached residue.

Dr. Luís I. Prochnow, Visiting Scientist from the Department of Soil and Plant Nutrition, University of São Paulo, Brazil, recently conducted research on this topic using three single superphosphates produced from a Brazilian phosphate rock (Araxa phosphate rock).

"In this study it was possible to accurately estimate the chemical composition of the fertilizers," says Prochnow. "This information assisted us in better explaining the agronomic results obtained with upland and flooded rice in associated greenhouse studies. The main impurity compounds in these fertilizers were a type of iron phosphates. Based on the compound characterization and agronomic results, it was possible to suggest that acidulated phosphate fertilizers with lower water-soluble phosphorus content containing the identified iron phosphate compounds can be agronomically more effective for flooded rice than for upland crops. This is because of the increase of available phosphorus due to reduced conditions upon flooding that promotes dissolution of iron and aluminum phosphates."

This hypothesis was confirmed in another experiment where IFDC scientists prepared the same iron phosphate compounds under laboratory conditions and tested them in the greenhouse. The results showed that higher agronomic effectiveness in terms of dry-matter yield, as compared to the standard source of phosphorus (monocalcium phosphate monohydrate) was obtained when the iron phosphate compounds were applied to flooded rice than to upland rice.

In another study the chemical characterization provided useful information to understand the requirement for water-soluble phosphorus from four phosphate fertilizers (triple superphosphates produced from Tapira and Jacupiranga phosphate rock and low-quality single superphosphates produced from Araxa and Patos de Minas phosphate rock) applied to soil with a pH of 5.2 and 6.4.

In the same study the modal analysis also provided information to explain why higher levels of water-insoluble phosphorus, as iron phosphate compounds, can be tolerated in acidulated phosphate fertilizers when applied to soils with higher pH. Additional studies considering the accurate estimation of the chemical composition of phosphate fertilizers should be encouraged to better understand other agronomic results.

The results obtained in these studies suggest that for a given amount of "plant-available phosphorus" (water + citrate soluble P) in the fertilizer, a smaller proportion of the P may need to be in the water-soluble form than is currently believed – especially when the fertilizer contains these iron phosphate compounds and they are used on flooded soils. "These studies should lead to a more cost-effective use of phosphate rocks in the future, which would be beneficial for fertilizer industries and farmers," says Prochnow.

Further information about the research described in this article can be obtained by contacting IFDC Visiting Scientist Luis Prochnow.

South Africa Serves as Backdrop for Workshop on Economic Policy Reforms and Agricultural Input Markets

Along with its cosponsors—the Fertilizer Society of South Africa (FSSA) and the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH—IFDC conducted a workshop on "Economic Policy Reforms and Agricultural Input Markets: Experiences, Lessons, and Challenges" in Cape Town, South Africa, during October 16-20, 2000. The workshop evolved in response to developments in developing countries that are trying to create an environment that is conducive to input sector development.

Seventy-two distinguished delegates to the workshop hailed from 29 countries. The registration roster included participants from Brazil, Burkina Faso, Cameroon, China, Egypt, Ethiopia, France, Germany, Ghana, India, Kenya, Malawi, Malaysia, Mongolia, Mozambique, Nepal, Nigeria, Rwanda, South Africa, Swaziland, Tanzania, Thailand, Togo, Uganda, United Arab Emirates, United States, Vietnam, Zambia, Zimbabwe.

Such notables as the Honorable Deputy Director-General for Agricultural Development, Masiphula M. Mbongwa (standing in for the Honorable Minister, Angela Thoko Didiza, Minister of Agriculture and Land Affairs), Government of South Africa, headlined the workshop's opening session. The keynote address—"Creating a Chain Reaction: The Key for Increased Profitability in Agribusiness in Southern Africa"—was delivered by Dr. Johan van Rooyen, Executive Director, Agricultural Business Chamber, Pretoria, South Africa. Subsequent sessions focused on challenges and experiences in developing input markets, which were discussed thoroughly in working group sessions. Eminent researchers and policymakers made presentations and shared their countries' experiences. Representatives of the private sector played a prominent role in the workshop. Thus, the workshop provided a forum for spearheading private-public partnerships to promote the development of competitive input markets.

"The objectives of the workshop were four-fold," says Ludwig G. F. Schatz, Director of the IFDC Human Resource Development Unit. "Our objectives were to assess the impact of economic reform programs on the agricultural input markets, to evaluate the impact of global and regional trade agreements and cross-border trade on input markets, to understand the dynamics of the reform process and private sector response, and to draw meaningful lessons for future planning."

The workshop focused on several main themes. Among others, these themes included the rationale for economic reforms, the role of agriculture in food security and environmental protection in the 21st century, agricultural markets and agricultural transformation, the impact of economic reforms and trade agreements on agricultural input markets, and the impact of devaluation and subsidy removal on input use.

"The importance of this workshop can be understood when one examines the present situation of the agricultural sectors in the developing countries," Schatz says. "The agricultural sector remains the backbone of many developing countries, especially those in Africa, and several transitional economies. Agricultural transformation requires shifting from traditional to modern technologies of production. Many studies have indicated that without agricultural intensification, based on modern technologies of production, Africa cannot feed its growing population and protect its natural resources. The use of modern technologies mandates the increased use of improved seeds, mineral fertilizers, and crop protection products."

While the state-owned enterprises have withdrawn from the procurement and distribution of inputs, the private sector has been slow to assume the responsibility for marketing and distribution of agricultural inputs. This has created an organizational vacuum, which the workshop in South Africa seeks to remedy.

Assessing the Agricultural Input Markets in Nigeria and Recommending a Strategy for Development

The U.S. Agency for International Development (USAID) recently requested IFDC to prepare an assessment of the agricultural input markets in Nigeria, covering three inputs—improved seeds, fertilizers, and crop protection products. In collaboration with the International Institute for Tropical Agriculture (IITA) and the West Africa Rice Development Association (WARDA) and with partial funding support from SG 2000, IFDC conducted the study during August 2000.The assessment team included Dr. B. L. Bumb, IFDC Policy Economist and Team Leader; Dr. S. K. Debrah, IFDC Marketing Economist; Dr. G. Gardner, USAID Agricultural Economist; Dr. A. Gudugi, USAID Agricultural Economist; Dr. P. Kormawa, IITA Agricultural Economist; Dr. B. Ogunfowora, Input Specialist (Consultant); and Dr. O. Osiname, WARDA Soil Scientist. The Federal

(Continued on page 6)

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Soil Fertility Management...

adviser, coach, and facilitator. The partner institutions are responsible for activities in the field. Initially, the project starts working in some pilot villages to become familiar with the reality farmers are facing and to begin the process of mutual learning. Researchers and extension workers promoting ISFM techniques must be able to translate their ideas and recommendations in a way that is understandable and convincing enough for farmers.

With funding from the International Fertilizer Industry Association (IFA), Paris, France, and USAID during 2000, Maatman and his team of five scientists (economists, an agronomist, a sociologist, and an extension expert) have made progress in extending ISFM strategies to increase food production at the village and regional levels in West Africa. During 2000 the project covered 7 countries (Benin, Burkina Faso, Ghana, Mali, Niger, Nigeria, and Togo), 14 pilot sites, and almost 50 villages. The strategic selection of zones and villages that have relative advantages to adopt ISFM strategies and the application of participatory approaches are key elements of the project. Long-term dependency of the farmers on "the project" is avoided. Institutional support concentrated on the organization and management of revolving funds by the farmers themselves, on the marketing of agricultural products, and on the distribution of agricultural inputs (involving both farmers and local input dealers). Pre-extension strategies like farmer-to-farmer visits and "open days" have promoted interest in ISFM strategies in the pilot zones.

As a consequence, the demand for fertilizers, improved seeds, and other agricultural inputs is rising rapidly in the pilot villages. However, for large-scale extension of the project within the pilot zones, more funds will be needed to enable farmers in the pilot zones to increase fertilizer use efficiencies, to train extension agents, and to strengthen professional capacities of the farmers' organizations and input dealers' networks. Inconsistent government policies also often hinder increased and effective implementation of the private sector.

Despite these constraints, the project is developing an adequate and efficient approach to stimulate agricultural intensification in well-targeted zones of West Africa. For example, in Mission Tové, Southern Togo, within the irrigated rice-growing area, by using the full integrated package, farmers were able to produce up to 5 to 6 tons of paddy rice per hectare, compared with only 1.5 to 4 tons per hectare normally. The farmers preferably conduct mechanized rice growing since this enables them to have two harvests per year. The case of Mission Tové clearly shows that institutional development and the well-functioning organizational structure of farmers are critical conditions for sustainable agricultural development through integrated soil fertility improvement.

(Continued from page 5)

Assessing...

Government of Nigeria (FGN) contributed to the study by seconding two of its staff members—an agronomist, Dr. A. M. Babandi from the Federal Ministry of Agriculture and Rural Development and an agricultural economist, Dr. R. I. Giwa from the Food Security Office of the Presidency.

The main objectives of the study were to review the structure and functioning of the agricultural input markets, to assess the potential of the private sector to supply agricultural inputs efficiently and in a sustainable manner, to identify constraints to the private sector participation in input markets, to develop programs and policies for strengthening the functioning of agricultural input markets, and to prepare an action plan for implementing the proposed policies and programs.

The assessment team recommended a holistic approach to strengthen the liberalization process and to develop efficient and sustainable agricultural input markets in Nigeria. It requires creating an effective policy environment, declaring and adhering to a consistent input marketing policy, building human capital for market development, improving access to finance, developing and implementing regulatory frameworks, promoting market transparency through a market information system, promoting technology transfer activities, and strengthening a research capacity for promoting a private seed industry.

(Continued on page 8)

(Continued from page 3)

Global Warming...

ability of plants and soils to sequester carbon dioxide from the air. With no-till farming, plants are grown in the residue of previous crops without using plows to clear the soil. In the United States, some utility companies have paid farmers US $4 per acre to adopt no-till farming techniques, giving farmers the opportunity to enhance their earnings. No-till farming can also help prevent soil erosion.

"Planting trees also helps reduce the amount of carbon dioxide in the atmosphere," Baethgen says. "Companies that emit carbon dioxide could one day pay farmers to plant trees on their land to help remove carbon dioxide from the air."

The IPCC estimates that well-managed, no-till croplands can sequester 125 megatonnes of carbon and agroforestry systems, 390 megatonnes annually.

"The Government of Uruguay passed a law to encourage the planting of forests," Baethgen says. "After farmers planted 500,000 ha of new forests, the new forests are absorbing more carbon dioxide than the country is emitting from the industrial and energy sectors."

Using agricultural crops and trees does not provide a permanent solution for reducing the amount of carbon dioxide in the air; however, crops and trees could give scientists another 20-40 years to develop renewable fuels that do not produce carbon dioxide when they are burned.

IFDC and Its Collaborators Recommend Action Plan for Developing Sustainable Agricultural Input Supply Systems in Malawi

During the 1990s Malawi made considerable progress toward deregulation and liberalization of agricultural input markets. Currently there are no restrictions on pricing or marketing of modern agricultural inputs—improved seeds, mineral fertilizers, crop protection products—and the private sector accounts for dominant shares of the input markets. Nevertheless, input markets are not operating as efficiently as expected when policy reforms were introduced, and farmers do not have an easy and affordable access to these inputs. Realizing the importance of these modern inputs in promoting food security and protecting the natural resource base, the Ministry of Agriculture and Irrigation (MAI) decided to commission a study of the underlying causes of unfulfilled expectations.

Through the Malawi Agricultural Sector Investment Programme Secretariat, MAI requested IFDC to conduct an assessment of agricultural input markets in Malawi. In collaboration with Development Alternatives Incorporated (DAI), Bethesda, Maryland, U.S.A., and Masdar Technology Limited (MTL), Eversley Hampshire, United Kingdom, IFDC conducted the study during February-May 2000. The study focused on developing an assessment of the prevailing input supply systems, identifying constraints to private sector participation, and preparing an Action Plan for an efficient and sustainable supply system. The Department for International Development (DfID), European Union, USAID, and the World Bank provided the funding for the study.

The study team included: B. L. Bumb, IFDC Policy Economist and Team Leader; M. F. Beig, IFDC Marketing Specialist; G. Dimithe, IFDC Production Economist; D. Baillie, MTL Credit Specialist; D. Gisselquist, DAI Seed Specialist; R. Chapweteka, MAI Inputs Economist; F. Msiska, MAI Policy Economist; and D. Kamchacha, Private Sector Inputs Trader.

The team concluded that Malawi's primary focus should be on enhancing the productivity of land and labor through the application of science and technology embodied in improved seeds, mineral fertilizers, crop protection products, and other appropriate agronomic and soil fertility-improving practices. In developing their action plan, the team assessed various options available for supplying agricultural inputs and concluded that the free market systems should be used to supply inputs to the farmers because these are relatively more efficient and sustainable and do not strain the fiscal resources of the country. Nevertheless, the team recognized the need to strengthen the liberalized input markets by undertaking activities in the areas of policy reform, human capital formation, improved financial services, market information systems, and regulatory frameworks. The team recommends that these activities should be undertaken in a holistic manner so that the synergies of various activities could be captured.

The MAI and various donors are in the process of developing programs to implement the action plan.

Using Organic Sources to Simulate Nitrogen Dynamics in Integrated Nutrient Management

The Consortium to Combat Nutrient Depletion (CNDC) is using decision support systems (DSS) tools to identify limiting factors, yield potentials, and management strategies to improve soil fertility in sub-Saharan Africa (SSA). The low organic matter content, low available soil phosphorus (P), coarse texture, very low cation-exchange capacity (CEC), and shallow rooting in West African soils combined with erratic albeit high intensity rainfall results in low nutrient use recovery independent of whether the nutrient is applied as mineral fertilizers or from organic sources. Given the high potential for losses of nitrogen (N) and even P and high input costs, the use of relevant DSS to help improve nutrient use efficiency, soil fertility, and crop yields is urgently needed.

"The Decision Support System for Agrotechnology Transfer (DSSAT) linked with the Organic Resource Database is now used to predict not only whether a particular crop residue/green manure is a good source of N but also the release pattern of N and its synchrony with crop N demand," says Dr. Upendra Singh, IFDC Senior Systems Modeling Scientist. "As expected, this would improve nutrient use efficiency and reduce losses of nutrients, particularly N from organic sources. The modified decision support tool would offer researchers and farmers in the region the options of choosing appropriate local resources for increasing crop yields and/or improving soil fertility. The model accommodates the effects of different tissue N, lignin, and polyphenolic content. For example, the DSS was used to evaluate the effect on N dynamics of four organic residues, maize stover, mucuna and pigeon pea stover, and leucena leaves, each applied at 2 tonnes per hectare. For mucuna tops having a high N concentration and fast N release, the timing of residue application must synchronize with plant N demand to avoid excessive N losses."

These simulations were limited to the N-supplying capacity of the residues. In the infertile soils of SSA, organic matter additions would also play a critical role in improving water retention, reducing soil erosion, and improving nutrient recovery through their impact on CEC, root penetration, and soil organisms. In cooperation with international agricultural research systems and the International Consortium for the Application of Systems Approaches to Agriculture (ICASA), IFDC is working to incorporate the above effects into the existing crop simulation models. The above simulations also assumed that organic residues once applied stayed in the field. In SSA, anything from termites to cattle could consume and thus remove the organic residue from the target fields to elsewhere. It is thus very important for decision makers to consider abiotic, biotic, and sociocultural factors when making recommenda-

(Continued on page 8)

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(Continued from page 7)

Using Organic Sources...

tions for yield and soil fertility improvement. It is equally important to realize the limitations and usefulness of the existing DSS.

"As we continue to use the DSS tools in our ongoing research, extension, and training programs in SSA, we envisage the need to improve and make these tools more appropriate for local conditions," Singh says. "Examples of this would be the option to use phosphate rock as a P source and the indirect contributions of organic matter to nutrient and water use efficiencies. Decision-support tools are being used in the ongoing transect study in West Africa to conduct ex-ante analyses and extrapolate water and nutrient responses. To further promote the use of systems tools for integrated nutrient management and soil fertility improvement, an Ecoregional-Fund-supported project with national agricultural research and extension systems (NARES) and university partners has been started in West Africa."

(Continued from page 6)

Assessing...

During October 2000 a national stakeholders workshop with 110 participants attending was held in Abuja, Nigeria; the workshop delegates reviewed the recommendations of the study and endorsed the policy and program measures proposed by the assessment team. Both the USAID and the FGN are in the process of developing projects and programs to implement the recommendations of the study, as endorsed by the stakeholders workshop.

Announcement

Mr. Philippe P. Bequet joined IFDC on January 1, 2001, as Liaison Officer, Office of the President. He is posted in Brussels, Belgium, where he is heading up IFDC's European Office. A graduate of the University of Leuven, Belgium, with a Master's degree in agronomy, biochemistry, and agro-industrial technology, Bequet comes to IFDC from the United Nations Development Programme (UNDP)/United Nations Office for Project Services (UNOPS), where he worked as Project Coordinator for the Rehabilitation and Sustainable Development in Eastern Slavonia, Vukovar project. He has worked in several countries in Africa, Eastern Europe, Caucasus, and Central Asia.