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Report

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

IFDC in Bangladesh—1978-94: A Profile in Progress

"This work is unparalleled," said the Honorable David N. Merrill, U.S. Ambassador to Bangladesh, at a technical seminar marking the completion of IFDC's Fertilizer Distribution Improvement Project-II (FDI-II).

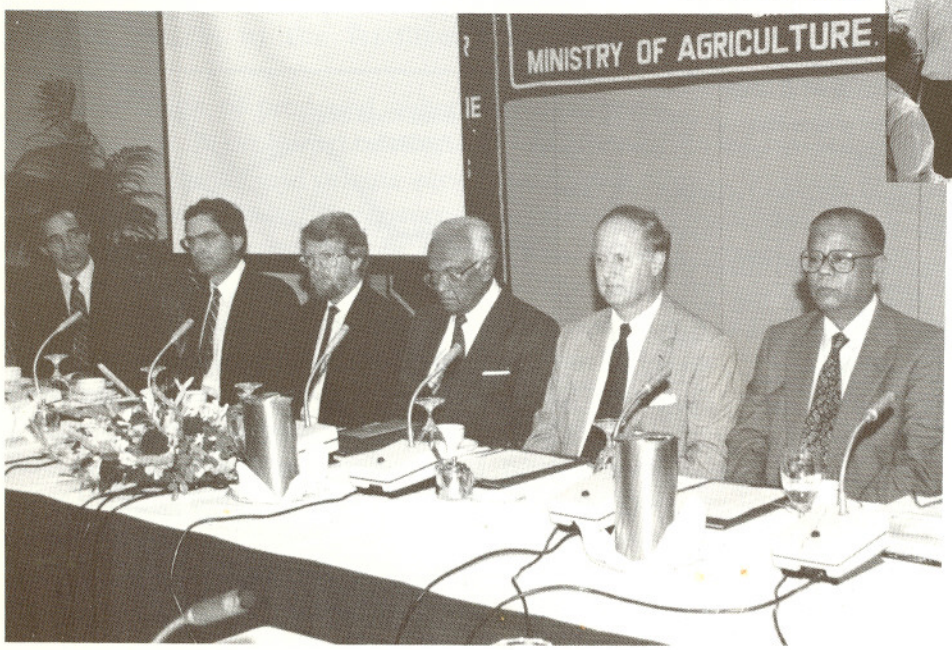
In outlining some of the accomplishments of the IFDC project, Ambassador Merrill mentioned the creation of a new class of entrepreneurs in some 800 new firms employing 34,000 people. They have successfully made the transition to a market-driven fertilizer distribution system. Keen competition has ensured efficient and cost-effective distribution. At least 60,000 people in Bangladesh make their living full time from the fertilizer trade, and perhaps 100,000 more participate on a part-time basis.

"Another Project accomplishment has been the elimination of fertilizer subsidies and fertilizer distribution support costs to the Government of more than US $100,000,000 since 1988," Merrill said. "These developments have contributed to Bangladesh's increase in food

"This work (the Fertilizer Distribution Improvement Project-II) is unparalleled."—The Honorable David N. Merrill, U.S. Ambassador to Bangladesh

Robin Lynn Raphel, U.S. Assistant Secretary of State, South Asian Affairs, visits with Bangladesh fertilizer distributors.

(IFDC/Dhaka photos)



Officials shown here participated in the closing seminar for the FDI-II Project in Bangladesh. They are (from left): Richard M. Brown, Director, USAID Mission; John H. Allgood, IFDC Chief of Party for FDI-II; Kevin J. Mullally, Director, Office of Food and Agriculture, USAID; Major General M. Majid-ul-Haq, The Honorable Minister, Ministry of Agriculture, Government of Bangladesh; The Honorable David N. Merrill, U.S. Ambassador to Bangladesh; and Akhtar Ali, Secretary, Ministry of Agriculture, Government of Bangladesh.

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IFDC is a public, international, nonprofit organization, governed by an international board of directors with representation from developed and developing countries. The 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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production to self-sufficiency in rice and an overall increase in food security."

The U.S. Ambassador recognized the contribution of the Bangladesh Government. "The Ministry of Agriculture has steadily and consistently applied incremental reforms of policy and institutional practice, which has enabled private entrepreneurs to enter the market and grow with the market. The Ministry's initiatives have resulted in private-sector assumption of virtually 100% of both fertilizer imports and domestic marketing."

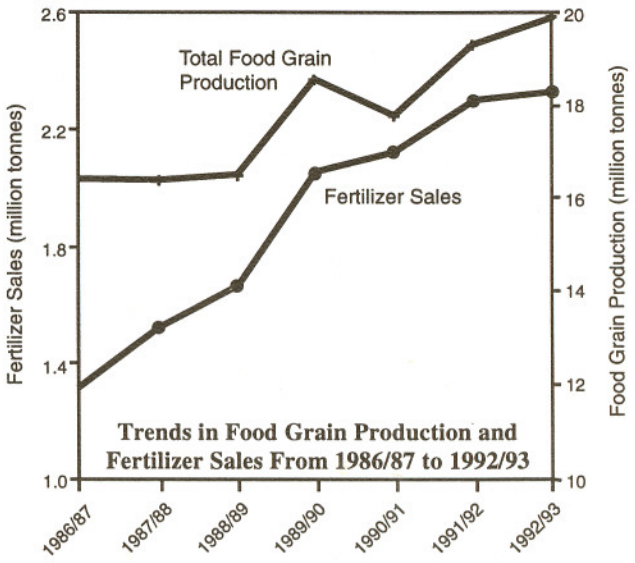
The IFDC project in Bangladesh is recognized as a model of the transition from a government controlled and operated fertilizer marketing system to a market-oriented fertilizer sector, according to John H. Allgood, IFDC Chief of Party in Bangladesh during FDI-II.

"There are many factors that contributed to the success achieved through the project including sound project design, a capable and dedicated staff, and adequate availability of resources needed for project implementation," says Allgood. "However, an overlooked factor, and one that was absolutely essential to the project's success was the productive working relationship between the project sponsor—the U.S. Agency for International Development (USAID), the Bangladesh Ministry of Agriculture, and the IFDC staff. This unique relationship, driven by a common goal to achieve increased efficiency in fertilizer marketing and improved fertilizer use, was the key to the project's success."

The first lesson learned during this project is that the Bangladesh Government can affect the economic direction of the agriculture sector through the enactment of policy changes. The crucial element in successful implementation lies in strong political will, broad consensus, and firm commitment on the part of policymakers and implementers in government agencies.

"Another lesson that we learned during this project is that competitive market forces play a major role in stimulating agricultural sector efficiencies," Allgood says. "The policy reforms in the fertilizer sector created a competitive market that resulted in increased availability of fertilizer throughout the country at reduced prices. Improved availability of fertilizer at competitive prices stimulated fertilizer use and thus agricultural production. Our experience in this project showed that the private sector in Bangladesh can fulfill the important role of ensuring an adequate supply of critical inputs to farmers."

The third lesson learned is that donors and consultants working in concert with the country's government is essential for project success. The relationship between USAID, the Ministry of Agriculture, and IFDC was based on trust and confidence in the capabilities and commitment of each. The success of the project is linked closely with the Ministry's willingness to risk policy reform to open the market to the private sector. The Ministry has implemented consistently key policy changes on the recommendations of IFDC to spur the transition to a market-oriented economy. Direct procurement from factories, private-sector imports, creation of private-sector associations, and subsidy removal are examples of some of the



Trends in Food Grain Production and Fertilizer Sales From 1986/87 to 1992/93

IFDC staff assist private-sector fertilizer dealers in identifying fertilizer nutrient deficiencies in maize.

(IFDC/Dhaka photo)

major decisions made by the Ministry to free the fertilizer market.

"A community of entrepreneurs must be fostered through technical assistance, training, and credit," says Thomas P. Thompson, IFDC's Monitoring, Evaluation, and Computer Consultant during FDI-II. "This is essentially a truly free and competitive market. For example, in 1981 two types of businessmen operated in Bangladesh: small dealers and owners of large patronage houses who controlled virtually all trade and industry through an informal network of agreements. Privatization of the fertilizer sector before the development of a strong fertilizer business community would have created cartels in the fertilizer market."

"The benefits of proposed policy reforms must be explained continuously to the public and private sectors," Thompson adds. "The government must be convinced of the benefits of decentralizing functions, and divesting itself of some authority. Field officials should be made partners in the process of change. Private business people must learn how to operate in a new policy climate. This is done through formal and informal meetings, through exchange of objective information, through careful listening to expressed and unexpressed needs and fears, and through continual support and encouragement. Therefore, policy projects call for substantial management and communication assistance, and policy advisors must be chosen for their social skills and analytical capabilities."

Commercial credit is essential for agribusiness to replace production, distribution and marketing functions of the public sector, particularly in new, high risk areas. A program to encourage market-oriented bank lending at unsubsidized commercial rates can be of great assistance to new agribusiness that is struggling to become established. It can give new entrepreneurs the capital that they need to purchase stock, upgrade facilities, or provide credit to customers.

Another lesson learned is that consideration should be given to Government employees displaced by the transition to a market economy.

"The timely and systematic flow of information is a key to the success of the FDI-II project," Thompson says. "The monitoring activities conducted throughout this project kept private dealers, farmers, and government policymakers continually informed of changing market conditions. Information on key indicators such as fertilizer stocks, production, imports, international prices, domestic wholesale and retail prices, availability, credit availability and constraints and expected demand for fertilizer are valuable to all participants. The monitoring and evaluation strengthened the linkage between data collected and the specific management questions raised by the Ministry, USAID, the Bangladesh fertilizer industries, banks, and others. The accurate and timely information on markets in a free competitive system helped policymakers make sound decisions."

Last, technology transfer is essential for privatization. A proper mix of technology transfer through direct technical assistance, training, and demonstrations is critical to the transition to a market economy and the promotion of increased fertilizer use and improved agricultural productivity. Importers must be educated about import formalities; business skills of leaders must be developed if they are to succeed in a competitive environment. Fertilizer use practices must be properly demonstrated and the results adequately shown to farmers to encourage the adoption of improved practices. Finally, it is essential to provide government officials insight into the actual operations of the fertilizer business, banks, and the role and activities of the government in a market economy.

A pending project in Bangladesh, to be directed by IFDC, will focus on agrobased industries and technology development. This project will build upon the previous accomplishments of IFDC in Bangladesh and include five subsectors—fertilizer, seed, poultry and livestock, agricultural machinery, and agricultural processing. The successes that IFDC has achieved in the fertilizer sector have paved the way for similar achievements in the other agricultural sectors.

IFDC Board Chairman Challenges Delegates to TFI's World Fertilizer Conference

At the recent World Fertilizer Conference conducted in San Francisco, California (U.S.A.) by The Fertilizer Institute (TFI), Dr. W. David Hopper, Chairman of IFDC's Board of Directors, challenged the audience by urging them to make a difference in Africa by getting a major innovative program going in Africa to wake up that continent to its potential in food production.

Even though Hopper's proposal is a simple one that will cost less than 10% of what has already been spent, on the average, during the past 5 years by the United Nations member countries, farmers in Africa could reap a tremendous harvest if his concept is implemented. First, he proposed that this money should be used to buy fertilizer to be auctioned to private dealers at a minimum price similar to what IFDC has done with fertilizer in Albania and animal feed in Romania. The proceeds would be used to develop the private sector. The fertilizer would not be given away but would be sold at prices that will allow the dealers to sell it to farmers.

Second, the proceeds from the auctions would be used to advertise the benefits of fertilizer; provide technical assistance to strengthen the private sector; train private dealers and extension specialists; conduct demonstrations with and without fertilizers and pay the dealers to do this; make loans to dealers to extend credit to their farmer customers; establish markets for agricultural crops; and purchase more fertilizer and repeat the process.

"The benefits to the world of a program like this are enormous," Hopper says. "Without some major new program, the problems in sub-Saharan Africa are going to escalate. We can double fertilizer use in sub-Saharan Africa next year for less than US $1 billion. Right now there are several countries in sub-Saharan Africa at or near the brink of disaster that are likely candidates for massive starvation unless something is done. I am convinced that something such as I am proposing must be done, or we are going to look back in 10-20 years and ask why we did not do something when the cost was relatively low."

Dr. W. David Hopper
Chairman
IFDC Board of Directors

In sub-Saharan Africa population has been increasing by 3% per year during the past decade (faster than any other region in the world), while food production has only been increasing by 2% per year. Every year more than 4 million of Africa's children die before they are 5 years old. Nearly a third are severely malnourished. The number of poor in sub-Saharan Africa is expected to increase by 50% by the year 2000.

"There is 128 million ha of arable land in sub-Saharan Africa," Hopper says. "This represents 78% of Africa's arable land. Only 5 million ha is irrigated. Land suitable for crops in sub-Saharan Africa is not enough to support its 538 million people with the present low-input, low-yielding, extensive type of agriculture. Sub-Saharan Africa has about 0.25 ha of arable land per capita that can be used to produce crops to feed itself, which is the same as the world average and higher than the developing world average of 0.17 ha. Fertilizer consumption per hectare in sub-Saharan Africa is only 12 kg/ha of arable land compared with 65 kg/ha in the remainder of Africa and 94 kg/ha worldwide."

Hopper outlined a number of constraints and challenges for fertilizer market expansion that exist in Africa. These include a lack of infrastructure, lack of credit, a shortage of trained people, and the absence of conducive agricultural policies.

"Political stability is a major problem in Africa," Hopper says. "Uncertain food supplies do not help. The quickest way to enhance political stability in Africa is to ensure more food—the way to do this is through better management of plant nutrients.

"Fertilizers have played a leading role in the past in feeding the growing population and in providing greater food security in the developing countries. Fertilizer use in sub-Saharan Africa must increase in the future because a limited scope exists for expanding agricultural areas."

Deforestation, desertification, and soil erosion are serious environmental problems experienced by many developing countries and especially

in Africa. Increased fertilizer use combined with other complementary inputs can help in solving these problems by raising the productivity of cultivable land and thereby reducing pressures on marginal land susceptible to desertification and soil erosion. Likewise, it can also help in protecting forest land because the increased production from cultivable land will lessen compulsions to clear forest land for cultivation.

In order to shift the focus of food production from surplus to deficit countries, several changes in policies and programs related to agriculture and rural development are required. For example, investment in rural infrastructure and trained people should be provided; investment in irrigation development and the use of improved crop varieties should be promoted; fertilizer use should be increased; and fair prices and crop markets for farm products should be provided. Of all these factors, fertilizer is the one that can significantly contribute to the increase in food production in both the short and long run.

"Fertilizer is a major part of the answer to preventing future Somalias and Rwandas in Africa," Hopper says. "Disputes over the distribution of food and other resources during general economic decline are politically explosive. It is clear that the time has come for something major to happen in Africa. Something different has to be tried."

Nobel Peace Prize Winner Joins IFDC Board

"Soil infertility is one of the great limiting factors in food production in developing countries," says Dr. Norman E. Borlaug, Nobel Peace Prize Winner, President of the Sasakawa Africa Association, and now member of the IFDC Board of Directors.

Serving as a distinguished professor of international agriculture at Texas A&M University during one-half of each year and "roaming the world" during the other half, Borlaug continues to stress the importance of fertilizer not only for feeding the masses but for growing feed for livestock and various fibers such as cotton. As he says, "Plant nutrients are to plants what food is to people—they are necessary for food production. He emphasizes that with the help of these plant nutrients scientists such as those at IFDC have been successful in the last half-century in growing more food on fewer acres, making land available for forests, wildlife, and recreation.

(Photo by Chris Dowswell)

Dr. Norman E. Borlaug

Because of his lifelong work in helping the developing-country people feed themselves, he has a keen appreciation of the needed inputs to agriculture. He and his associates with Global 2000 and the Sasakawa Africa Association have been working most recently in Ghana, Togo, Benin, Nigeria, Tanzania, Ethiopia, and Mozambique.

"African agriculture is improving but still losing ground to the burgeoning population; food production is increasing by only 2% per year while population is expanding by 3% per year," Borlaug says. "If we could get the private sector involved in fertilizer import and distribution in Africa, we could solve Africa's food production problems. In experiments on farmers' fields in our seven target countries in sub-Saharan Africa, we have proved that maize yields can be doubled when we apply a package of the best technological inputs, including the best varieties, proper fertilization practices, early and timely weeding, and moisture."

Remaining true to his philosophy that world peace cannot be built on starvation and poverty, Borlaug says it is important to boost education as well as agriculture in Africa's outlying bush areas. He says rural youth

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Japanese Development Official Signs on With IFDC Board

(Photo, courtesy IDCJ)

Dr. Kunio Takase

One of the newest members to be welcomed to the IFDC Board of Directors is Dr. Kunio Takase, Executive Director of the International Development Center of Japan (IDCJ).

After graduating from Kyoto University in irrigation engineering in 1949, Takase spent the initial period of his career focusing on increasing rice production in Japan. After joining the Ministry of Agriculture and Forestry of the Japanese Government, he was responsible for overseeing the building of an irrigation dam and prepared the design standard for earthen dams in Japan. In addition, during the mid-50s he managed the World Bank-financed Aichi Irrigation Project in central Japan. In 1965 Takase saw his country realize one of his dreams—self-sufficiency in rice.

Two years later the Japanese development official began the second phase of his career, focusing on rice production in Asia when he joined the Asian Development Bank (ADB). At ADB he joined with representatives of 15 Asian countries to conduct the Asian Agricultural Survey. The Deputy Team Leader of this Survey was Dr. W. David Hopper, now Chairman of IFDC's Board of Directors. During 1974-78 Takase served as Director, Technical Appraisal and Economic Evaluation for the Overseas Economic Cooperation Fund or the Japanese Financing Agency. In 1986 he retired from ADB as Director of the Irrigation and Rural Development Department.

The third and current phase of his career, which began in 1986 when he joined IDCJ, focuses on global sustainable agriculture. IDCJ is a private nonprofit consultant to the Japanese Government. Since 1994 Takase has been involved in global environment and agricultural resource management as part of Japan's new strategy on global agriculture and rural development.

Takase recently completed a tour of Eastern Europe and Africa to try to determine if there is a new role for Japan to play to solve the food production problems in these areas. "The situation in Africa is completely different from that of Asia during the Green Revolution," he says. "The resources and the environment are diametrically opposed. In Asia average annual rainfall amounts to 1,500 mm. Therefore, rice can be the main crop, and a dense population can exist there. However, in Africa as a whole average annual rainfall amounts to only 500 mm. Thus, the main crop cannot be rice or wheat; it must be sorghum, millet, or corn. Further complicating the problems in Africa is the fact that replenishing the soil fertility is very difficult because the environment is very fragile.

In defining his world view, Takase says "All forms of life—plants and animals—cannot survive without coexisting. We must live on the same planet; we must finally integrate to achieve a global existence. My philosophy is very similar to that of IFDC."

RECENT IFDC PUBLICATIONS

IFDC recently released its Annual Report, 1993. A guest essay by Dr. Norman E. Borlaug, President of the Sasakawa Africa Association and Nobel Prize Recipient, introduces this report. In another essay three of IFDC's directors discuss the relevance of IFDC's work to Dr. Borlaug's concerns. Providing a cohesive element to the publication is its theme of IFDC's collaboration with international networks in striving toward sustainable agricultural development. The Center's activities in nutrient dynamics research; privatization; environmental research; management information systems; watershed management; policy reform, market research and development; and capacity building are highlighted.

To receive a complimentary copy of this report, interested parties should request IFDC Circular—S-17 from the IFDC Purchasing Department, P.O. Box 2040, Muscle Shoals, Alabama 35662.

IFDC Senior Marketing/Credit Specialist Receives Award From the University of the Philippines

The University of the Philippines, Los Baños, College of Agriculture Alumni Association recently presented its 1994 Distinguished Alumnus Award to Catalino C. Yaptenco, Jr., IFDC Senior Marketing/Credit Specialist. Yaptenco graduated from the University in 1954 with a B.S. degree in agriculture.

This award was made "in recognition of his outstanding achievements in marketing organization and management as well as in the development and implementation of agroservice, technology transfer, and credit programs for small farmers in a developing-country environment."

As senior marketing/credit specialist at IFDC, Yaptenco has developed, in collaboration with universities, research institutions, and private companies worldwide, various agribusiness training programs related to marketing, credit and finance, and extension service on fertilizers and other agricultural inputs, thereby contributing to small farmers' productivity in many developing countries.

Catalino C. Yaptenco, Jr.

(Continued from page 5)

who migrate to larger cities seeking a better life often end up in the slums because of their lack of knowledge.

The Nobel Prize winner has a clear vision of IFDC's role in African agriculture. "I hope to see IFDC transfer the kind of successes it has realized in Bangladesh to countries in Africa. By using its totally integrated approach to agricultural development, the Center can make a difference in African agriculture—from raw material identification and development to the encouragement of needed policy decisions to dealer training and ultimately to fertilizer use on the farmers' fields."

"IFDC has been breaking new ground in its efforts toward privatization of the fertilizer industry in countries like Bangladesh and Venezuela. Many developing countries are now transferring their fertilizer industries to the private sector to achieve greater efficiency and to reduce costs, and IFDC can assist them in making this transition."

A native of Cresco, Iowa, Borlaug earned a Ph.D. degree in plant pathology from the University of Minnesota in 1942 and two years later began his research, which was destined to make Mexico self-sufficient in food production. He is most famous for developing wheat varieties that provided the basis for the Green Revolution. For his work in creating the Green Revolution, Borlaug received the Nobel Prize for Peace in 1970.

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