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Global Leaders Plan Strategy for An *African Green Revolution*

The Historic Abuja Declaration Calls for Lifting of Taxes on Fertilizer

The Africa Fertilizer Summit and the Abuja Declaration. Global leaders called for an *African Green Revolution* at the conclusion of the Africa Fertilizer Summit, held 9-13 June 2006 in Abuja, Nigeria.

"The leaders also wrote a strategic—and maybe, historic—document at the Summit: the *Abuja Declaration on Fertilizer for an African Green Revolution,"* says Dr. Amit Roy, IFDC President and CEO. The Abuja Declaration declared both mineral and organic fertilizers a "strategic commodity without borders"—meaning that all cross-border taxes and tariffs should be lifted.

The Summit was one of the largest and most comprehensive strategic gatherings ever to address Africa's fertilizer crisis. Its 1,100 participants included African heads of state, ministers of agriculture, members of the Summit's Eminent Persons Advisory Committee, and hundreds of leaders of international organizations, agricultural research centers, and private sector companies.

"Due to decades of soil nutrient mining, Africa's soils have become the poorest in the world," the Abuja Declaration states. "A move toward reducing hunger in Africa must begin by addressing its severely depleted soils. It is estimated that the continent loses the equivalent of over $4 billion worth of soil nutrients per year…Yet farmers have neither access to nor can they afford the fertilizers needed to add life to their

This issue focuses on
- **An African Green Revolution, Planned at the Africa Fertilizer Summit,** and
- **IFDC Progress in Central Asia**

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soils. And no country in the world has been able to expand agricultural growth rates, and thus tackle hunger, without increasing fertilizer use."

The Abuja Declaration also calls for the African Development Bank (AfDB) to establish an "African Fertilizer Development Financing Mechanism" to support regional fertilizer procurement and distribution facilities, provide credit for fertilizer importers and distributors, and develop local fertilizer manufacture in Africa.

To catalyze start-up, Nigerian President Olusegun Obasanjo committed $10 million to the fund. The African Union Member States agreed to pledge more funding.

UN Secretary General Kofi Annan first called for "a uniquely African Green Revolution" in Addis Ababa, Ethiopia, in 2004. He pointed out that food productivity in Asia had tripled but, "Africa has not yet had a Green Revolution of its own."

President Obasanjo later repeated the call and pointed out *why* per capita food production in sub-Saharan Africa has decreased over the past three decades: "The main reason for Africa's food shortages is soil nutrient depletion…We must feed the soil, that feeds the people.

"This will require an increase in the use of fertilizer," he continued. "Therefore, African governments have decided to take action to catalyze large-scale adoption of fertilizer."

Nutrient Mining in Africa. Sub-Saharan Africa has the world's lowest fertilizer use, averaging only 8 kg/ha yearly (Figure 1). The African Union states resolved to increase fertilizer use to at least 50 kg/ha by 2015 in the Abuja Declaration. That would increase production by no less than 25%.

"Food production has increased dramatically in the 'Green Revolution' countries of Asia, where farmers use from 80 to more than 150 kg of fertilizer per hectare," Roy says. "But yields in Africa have stagnated at about 1 ton per hectare for the past three decades, and per capita food production has decreased." Figure 2 shows cereal yields in the two regions since 1962.

The increased agricultural production in Asia was mostly through higher yields, but Africa's far lower increase has been mainly through expansion of land area (Figure 3).

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Africa Fertilizer Summit Organizers

The Summit was convened by the African Union's New Partnership for Africa's Development (NEPAD), with strong backing from the Government of Nigeria, the Rockefeller Foundation, and other donors. The Federal Republic of Nigeria hosted the Summit, which was chaired by President Obasanjo, who also chairs NEPAD's Implementation Committee. IFDC implemented the Summit.

Summit Sponsors

Summit sponsors included: the Federal Republic of Nigeria, The Rockefeller Foundation, the African Development Bank (AfDB), Agriterra, the Arab Fertilizer Association (AFA), the Commonwealth Secretariat, the Department for International Development (DFID, UK), the Economic Commission for Africa (ECA), Fidelity Bank (Nigeria), the Food and Agriculture Organization of the United Nations (FAO), the William and Flora Hewlett Foundation, the International Fertilizer Industry Association (IFA), the International Fund for Agricultural Development (IFAD), the Notore Chemical Co. (Nigeria), the Partnership to Cut Hunger and Poverty in Africa, Sasakawa-Global 2000, Shell Canada Limited, the United Bank for Africa PLC, the U. S. Agency for International Development (USAID), and The World Bank.

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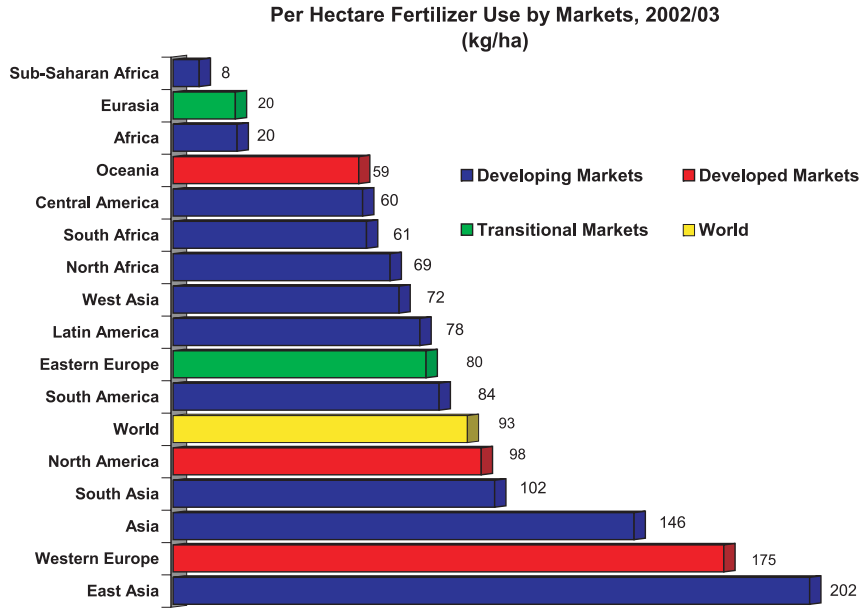
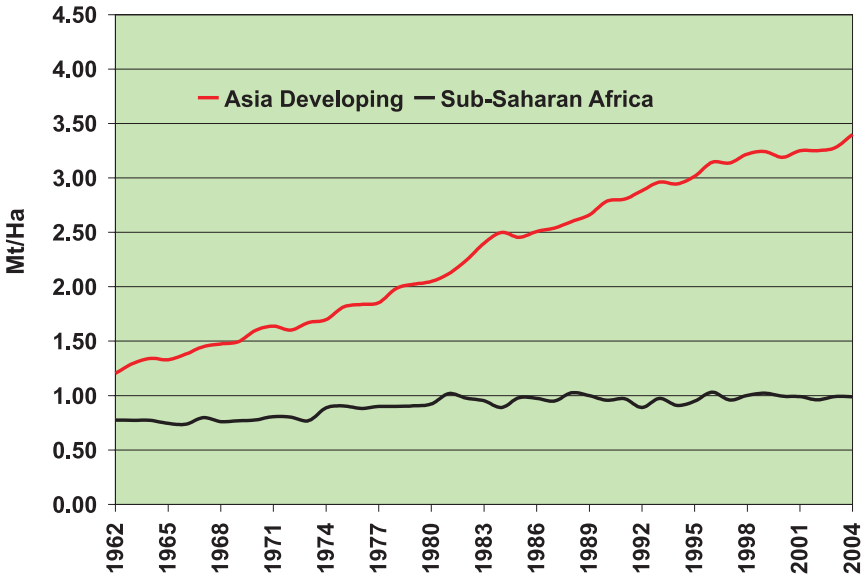


Source: Derived from FAO data.

Figure 1. Farmers in sub-Saharan Africa use only about 8 kg/ha of fertilizer yearly. The world average is 93 kg/ha and Green Revolution countries of Asia use 100 to 200 kg/ha.



Source: Derived from FAO data.

Figure 2. Cereal yields in sub-Saharan Africa have stagnated for 40 years, while yields in Asia have tripled.

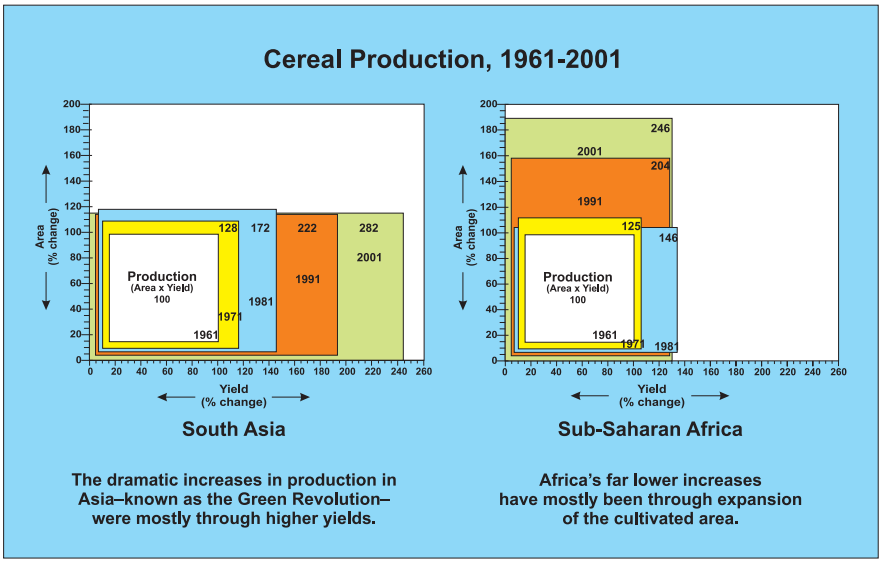


Figure 3. Asia's production increases were mostly through higher yields. Africa's increases have been by bringing more land into production.

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Farmers in sub-Saharan Africa have traditionally cleared land, grown a few crops, and then moved on to clear more land, leaving the land fallow to regain its fertility. But population pressure now forces farmers to grow crop after crop, mining the soil of nutrients while giving nothing back.

New IFDC research on soil nutrient mining, released at the Summit, documents the frightening decline in Africa's soil health from 1980 to 2004. About 75% of sub-Saharan Africa's farmland is severely depleted of nutrients, with the highest rates of nutrient depletion—more than 60 kg/ha yearly—in Guinea, Congo, Angola, Rwanda, Burundi, and Uganda (Figure 4). Those countries comprise 40% of the region's farmland, reported Dr. Julio Henao, IFDC Biometrician, and Dr. Carlos Baanante, IFDC Consultant Economist, in the IFDC technical report *Agricultural Production and Soil Nutrient Mining in Africa.*

A third of sub-Saharan Africa's population is undernourished, and most of the hungry live in East Africa, where nutrient mining rates are high.

"The evidence leaves no doubt that the very resources on which African farmers and their families depend for welfare and survival are being undermined by soil degradation caused by nutrient mining and associated factors such as deforestation, use of marginal lands, and poor agricultural practices," Henao and Baanante wrote.

Food vs Fertilizer Imports. Africa now imports about 19 million tons of cereal grains per year, at a cost of $3.5 billion. If soil erosion and nutrient loss continue at the current rate, crop yields in Africa will decline by as much as 30% by 2020. This will lower total cereal, root and tuber, and legume production by about 26 million tons yearly.

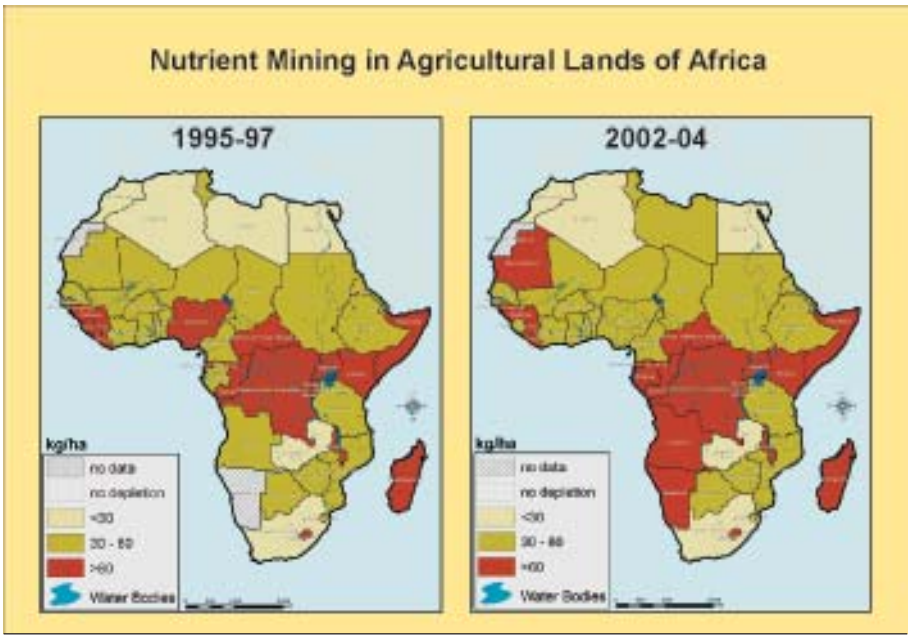

Figure 4. About 75% of the farmland in sub-Saharan Africa is severely degraded by soil nutrient mining. Africa loses $4 billion worth of soil nutrients every year.

Meanwhile, Africa's population will increase from today's 750 million to 1.1 billion people. Imports will be 34 million tons, costing $8.4 billion…a high price in a region where half the population now lives, somehow, on about 65 cents a day.

One kilogram of fertilizer will not only help replenish Africa's depleted soils, it will produce 10 to 15 kg of grain. About 3.5 million tons of fertilizer, at a cost of $1 billion, would produce the 34 billion tons needed in 2020, and save $7.5 billion.

Crops Don't Grow on Air. The Rockefeller Foundation was one of the Summit's major sponsors. Dr. Akin Adesina, Rockefeller's Associate Director for Food Security, said, "I've been in international work for 20 years…and have never seen any region of the world that is suffering as much as Africa. Why is that? The crop varieties that can make the difference for rice, for maize—they are becoming available here in Africa. But none of these varieties grow on air. All need nutrients, they need fertilizers to grow. The average yield in Africa for maize is half a ton per hectare. In Latin America, we can get 10 tons/ha. American farmers get well over that. The reason is: African soils are dead. Just plain dead."

Nobel Laureate Norman Borlaug: "You Can't Eat Potential!"
Dr. Norman Borlaug, Nobel Laureate and former IFDC Board member, has called improved seeds the "catalysts that ignited the Green Revolution," and mineral fertilizer the "fuel" that powers it.

The technology exists for an African Green Revolution, Borlaug told Summit participants. What is lacking is the "appropriate political will and economic policies."

Borlaug urged African leaders to implement economic policies that will facilitate fertilizer use by increasing supply, strengthening markets, and making access more affordable.

"The potential is there—but you can't eat potential! You've got to convert it to grain and food!" Borlaug, 92, said.

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Environmental Consequences. Borlaug also warned that, without healthy soils, Africa's agriculture will continue to stagnate, forcing mass migration to Africa's already teeming cities or the clearing of new land in fragile environments…the habitat of wild animals and plants.

About 110,000 additional hectares of Africa's forests and grasslands are cleared for farming yearly, according to the IFDC nutrient mining report.

Dr. Eric Smaling of Wageningen University, Netherlands, reported that African countries with higher fertilizer use have more abundant wildlife, using elephants as an example.

Former President Jimmy Carter on Fertilizer and the Environment. Former U.S. President Jimmy Carter addressed both Summit participants and heads of state, via a pre-recorded video.

"Nutrient-depleted soils are the greatest limitation to African agriculture," Carter said. "But efforts to improve soil health have been hampered by insufficient local capacity to produce fertilizer and the resources to import it.

"We now have the improved seeds to catalyze an African Green Revolution. But those seeds must have nutrients to produce the grain that Africa so desperately needs."

"Some worry about environmental consequences of fertilizer use in Africa," Carter said. "But with sound management practices, the hungry soils of Africa will make almost all nutrients available to crops. In fact, the alarming mining of soil nutrients in Africa makes the use of mineral fertilizer environmentally friendly. The nutrients will...increase vegetative cover and reduce soil erosion."

NEPAD Concerned About Infrastructure Problems. Infrastructure problems were discussed by Professor Firmino Mucavele, CEO of the African Union's New Partnership for Africa's Development (NEPAD).

"Because roads are few and poor, transport costs account for at least 30% to 40% of the farmgate fertilizer price in Africa," Mucavele said. A ton of fertilizer that costs $150 in the United States can cost as much as $600 in landlocked African countries.

"Worsening the situation are weak input and output marketing systems that reduce economic incentives to use fertilizer," Mucavele said. "Thus, building rural input markets to give farmers access to affordable fertilizers is important. The environmental dimension of fertilizer use in Africa is not one of *over use* but of *under use."* He called for a rapid increase in fertilizer use not only "for higher food production" but also to "improve the health of our soils."

Complex Problems Demand Comprehensive Solutions. Peter McPherson and Dr. Rudy Rabbinge strongly supported an African-led approach to solving the continent's food and agricultural crisis permanently. McPherson is the founding co-chair of the Partnership to Cut Hunger and Poverty in Africa, former Administrator of the U.S. Agency for International Development (USAID), and current Chair of the IFDC Board. Rabbinge is Chairman of the UN Panel on Food Security and Agricultural Productivity in Africa, a member of the Dutch Parliament, and Deputy Chair of the IFDC Board.

McPherson cautioned against simplistic solutions, such as subsidized fertilizer, to the African food crisis. "Complex problems demand comprehensive solutions," he said. "Africa today is more complex than Asia was in the Sixties and Seventies. The Green Revolution in Asia was mainly with wheat and rice, but in Africa we have a mosaic of crops, climates, and soils."

McPherson and Rabbinge agreed that fertilizer subsidies played a role in the Asian Green Revolution, but noted sharp contrasts between Asia of the 1960s and 1970s and Africa today. Asia had an extensive transport network that connected agricultural lands to markets, for example, and a significant pool of scientists and engineers that could develop and deploy new technologies.

"Unlimited fertilizer subsidies without substantial resources for the basics of infrastructure, technology, and training will leave Africa just one season away from the next food crisis."

Potential for Local Fertilizer Manufacture. Ironically, little fertilizer is manufactured in Africa, even though both the desperate need, and many of the natural resources, are there (Figures 5 and 6).

Urea is the world's most common form of nitrogen fertilizer. Natural gas, a byproduct of oil drilling, is essential for urea production.

Notore Chemical Industries announced at the Summit that it will reopen the only urea plant in sub-Saharan Africa, outside of South Africa, in the oil-rich Niger Delta of Nigeria. "The Delta has an abundant supply of natural gas, but about 60% is 'flared,' or burned off and wasted," Onajite Okoloko, Notore Director, said. (Notore means *Genesis* in dialects of the Niger Delta.)

Notore began with the 2005 purchase of the huge, but defunct, National Fertilizer Company of Nigeria, or NAFCON. NAFCON was one of the world's largest urea plants when built in 1988, but it closed in 1996 due to technical and management problems.

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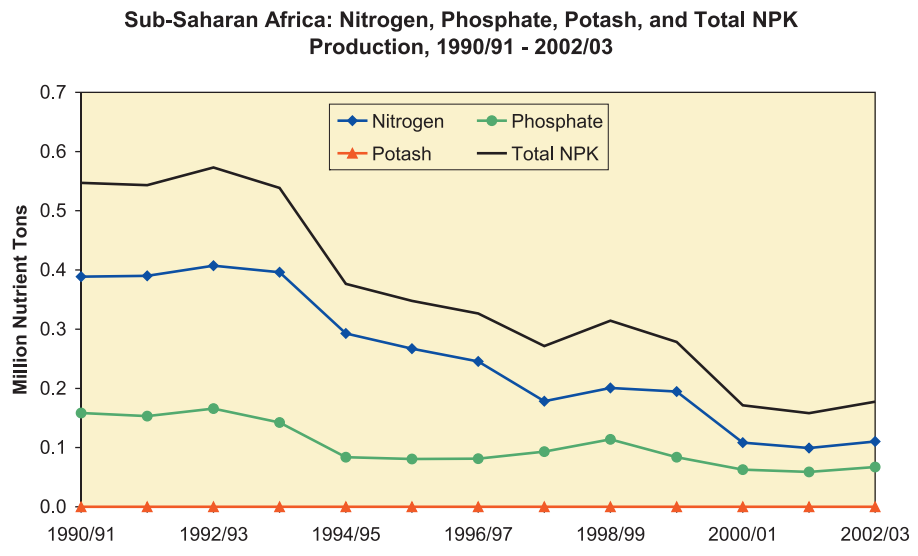

Figure 5. Fertilizer production in sub-Saharan Africa peaked at about 573,000 tons in 1992/93. That was only enough fertilizer to meet a fraction of the region's needs. But production today is only a third that of a decade ago.

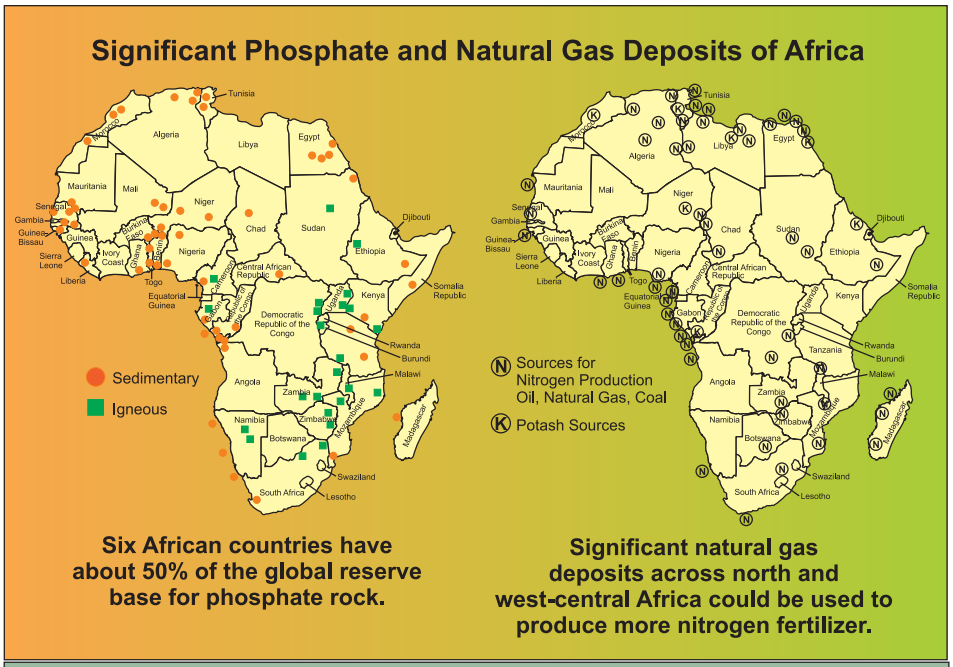

Figure 6. The need for fertilizer is desperate in sub-Saharan Africa, yet many of the necessary natural resources for local manufacture are there.

The sale resulted from Nigerian President Obasanjo's initiative to privatize government-owned businesses, and focus on developing agriculture. Notore has signed a 20-year contract with the Nigerian National Petroleum Corporation to supply natural gas to run the plant.

Notore will initially produce about 1,700 tons of urea per day or about 600,000 tons per year. Within 5 years Notore plans to build two more plants and produce about 6,500 tons of urea daily, or 2.4 million tons per year.

Phosphorus is the plant world's equivalent of carbohydrates—it provides energy for plants to thrive. Most African soils are severely deficient in phosphorus.

Six African countries control about 41.5% of the world's currently exploitable phosphate rock reserves and 50.2% of the total global phosphate rock reserve base that may be exploitable in the future, reported Steven J. Van Kauwenberg, IFDC Senior Geologist, in *Fertilizer Raw Material Resources of Africa*. A draft of the new book was distributed at the Summit.

Ironically, millions of tons of phosphate rock are shipped abroad to be further processed into phosphate fertilizer.

"Development of indigenous fertilizer raw material resources and local or regional fertilizer production facilities are alternatives to supply the nutrients that African farmers must have to feed growing populations," Van Kauwenberg wrote.

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For more information regarding the Summit, check out the website at www.africafertilizersummit.org.

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But investors must decide if it's more economical to manufacture fertilizer locally, or to import it.

"It would be too expensive for some countries to produce their own fertilizer," Dr. Kofi Debrah said. Debrah is IFDC Chief of Party for Market Information Systems and Traders' Organizations in West Africa (MISTOWA), a program to put new information tools into the hands of farmers and traders.

"We're trying to get governments to revise policies on imports, because if we import cereal into a country and sell it cheaper than production from domestic resources, farmers will not have the incentive to produce more…and will not be willing to invest in the fertility of the soil."

Partnerships Made the Summit a Success. "Partnerships were key to the Summit's success," Amit Roy says. "From its inception, key players and stakeholders worked together: the African Union, NEPAD, the governments of Nigeria and 40 other African nations, African farmer and input dealer organizations, the Rockefeller Foundation and other sponsors.

"All worked hard to serve one ultimate partner: the smallholder farmer."

Photo by Mansur Baratov

Kyrgyzstan

Photo by Mohammad Zai

Afghanistan

IFDC Progress in Central Asia

Agricultural Intensification and Marketing in Albania, Kyrgyzstan, Tajikistan

Developing Agri-Input Markets in Afghanistan

Farmers in Albania Increase Dairy and Poultry Production. IFDC supports Albania's dairy and poultry industries by managing the Revolving Credit Fund, established through USDA's Food for Progress program.

Shkelqim Hallulli, a dairy farmer in Spitalle in western Albania, bought 10 pregnant Holstein heifers from Germany in late 2004 through the Livestock Entrepreneurs Association of Albania (LEAA). He used a loan of $19,500 equivalent provided by the USDA Food for Progress warranty fund for the purchase. All of the cows are now lactating; production was previously 20 liters of milk/day per cow but has increased to 25 liters.

LEAA specialists provide Hallulli recommendations for farm management, including for barn construction, animal feeding, animal health, and market information. Hallulli uses the feed formulation that LEAA recommends, and LEAA veterinarians periodically check his herd. He is negotiating with the area artificial insemination technician to inseminate his cows with imported Holstein semen from World Wide Sires. Hallulli has kept all the calves on the farm and, unlike many farmers, he is fattening the males to sell, when older, for a higher price.

LEAA specialists have prepared record books for Hallulli to maintain records of milk and meat production, and breeding.

Dairy farmer **Bari Pepa** in Sejmenas, Lushnje District, has been an LEAA member since 2001. He manages 30 Holstein cows imported from Germany through LEAA.

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Pepa's cows each produce from 25 to 35 liters of milk/day. Proper feeding is key to such high production. Pepa applies LEAA recommendations for feed formulations and supplements, health care, breeding, and hygiene. He worked with LEAA specialists to plan his farm's cropping system, considering the number of cows and their needs for feed, based on maize for silage, alfalfa, and ryegrass. LEAA helped him calculate the land needed for each crop, and helped with the maize harvest and silage preparation.

Pepa also purchases and uses 6-7 kg/day of concentrated animal feed. Pepa is among the first farmers to supplement feed with vitamins and mineral blocks. LEAA uses Pepa's farm as a demonstration farm to transfer technology to other farmers.

Chicken farmer **Fatbardha Bejo** in Memaliaj, southeast Albania, has profited from the use of improved breeds of chicken and balanced feed. The 42-year-old woman has a family of seven; four work on the 15-ha farm where wheat, maize, and vegetables are grown intensively.

The use of animal feed with balanced protein to help farmers like Bejo produce more eggs and meat from improved chicken breeds was introduced to Albania by the Association and Business Management Center (ABMC) and the Albanian National Farmers Union (BKFSH), in collaboration with IFDC. This was through a poultry project financed by USDA's FFP program. Improved breeds were introduced to smallholders with two goals: to produce 200 eggs/chicken yearly, and 2 kg or more meat/chicken.

Yellow maize and soybean meal with 48% protein were introduced as feed on 33 poultry farms with varying climates and incomes. Data were gathered from participating farmers; all were active BKFSH members.

Fatbardha Bejo was among the first poultry farmers to use balanced feed to improve poultry production. By using yellow maize and soybean meal with 48% protein as feed for improved chickens, her production was twice that using traditional chickens and feed. The increased meat quality and higher profits motivated Bejo to convert her other farm operations to chicken production for the market. She was soon providing chickens for the marketplaces, restaurants, and hotels of the entire region. Her profits have doubled since then. Bejo plans to increase production by at least 3,000 chickens by late 2006.

Establishing Farm Retail Stores in Kyrgyzstan. Traditionally, there were no retail stores that sold agricultural inputs in Kyrgyzstan. Farm supplies were sold in bazaars, which were usually in urban areas. Farmers not only had to travel long distances to buy a bag of fertilizer, but product quality was not guaranteed.

"You heard stories in Kyrgyzstan about farmers who went to the bazaar to buy pesticides to control insects—and were sold herbicides that killed their crops," says Dr. Hiqmet Demiri, IFDC Agribusiness Specialist.

IFDC implemented the Kyrgyzstan Agri-Input Enterprise Development Project (KAED) in 2001 in southern Kyrgyzstan to develop competitive markets and to increase sales of farm inputs, access to credit, and adoption of new farm technology.

The KAED project has generated an estimated $80 million of increased agricultural output over the past 5 years through farmers' use of improved agri-inputs and best farmers' practices. The KAED strategy is based on the premise that transparency and quality of information are the foundations for enhancing business.

At the heart of the KAED strategy was the establishment of the Association of Agri-Businessmen of Kyrgyzstan (AAK, also known as *Jer Azigy*, or "Food for the Soil").

The goal of AAK is to support the development of agri-input dealers and increase farm production through the use of improved seeds, fertilizers, crop protection products, and agronomic advice. AAK also teaches basic economic concepts, and collaborates with public authorities to improve policies. Today, AAK has 126 members; 26% are women.

The establishment of retail farm stores throughout Kyrgyzstan is a key AAK strategy to respond to farmers' needs for timely supply of quality inputs. "This was a new page in Kyrgyzstan's agriculture development," Demiri says.

Twenty AAK members visited Albania in 2003 and saw the benefits of retail farm stores. That led to the AAK opening of Kyrgyzstan's first retail agri-input store in June 2003, in Osh. Since then AAK has opened 21 retail farms stores across the country. The stores have increased the variety of agri-inputs available, lowered their prices, and most important, improved the quality dramatically.

Also, most agri-input trading was previously black market, rift with bribery and with the government receiving no taxes. But today, after establishment of legal retail stores, almost all agri-input sales are legal.

In August 2006 AAK member Abdivaliev Artyk opened the first

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Cutting the ribbon to open Kyrgyzstan's 21st retail store for agri-inputs—and the first in Bishkek, the nation's capital—is Marie L. Yovanovitch, U.S. Ambassador to Kyrgyzstan (orange dress). To the Ambassador's right is Abdivaliev Artyk, the store's owner; and Vladimir Pak, representative of Kyrgyzstan's minister of agriculture.

Photo by Mansur Baratov of the Association of Agri-Businessmen of Kyrgyzstan (AAK)

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retail farm store in Bishkek, Kyrgyzstan's capital. Farmers, AAK dealers, government officials, and representatives of partner projects attended the ceremony.

Among the dignitaries were Marie L.Yovanovitch, U.S. Ambassador to Kyrgyzstan; Cliff Brown, country representative for the U.S. Agency for International Development; and Vladimir Pak, special representative of the Minister of Agriculture. Zachary Shelton, KAED project supervisor, attended the opening ceremony along with officials of the German Agency for Technical Cooperation (GTZ), the Asian Development Bank, and the World Bank.

Ambassador Yovanovitch said, "This is the 21st retail agri-input shop that AAK has opened—but not the last!" The Ambassador congratulated IFDC and AAK for excellent support in agricultural development and encouraged more efforts to bringing change to Kyrgyzstan agriculture.

AAK plans to open 10 more retail agri-input shops in the north, bringing the total to 31.

IFDC Hosts Interns From Kyrgyzstan and Tajikistan. Two agricultural specialists from the former Soviet bloc of Eurasia completed 11-week internships in July 2006 at IFDC headquarters in Muscle Shoals, Alabama, U.S.A. They were sponsored by the Special American Business Internship Training (SABIT) program of the U.S. Department of Commerce.

Local businesses, state and government agencies, and civic organizations, as well as IFDC, hosted the interns.

Ainagul Nasyrova, an agronomist, heads the Center for Agricultural Training and Extension in southern Kyrgyzstan. She manages a team of 26 professionals.

Bakhtier Abduvohidov is an agricultural economist and agri-credit specialist from Tajikistan. He manages a micro-finance program for a women's business association and has worked as a credit manager for Mercy Corps.

"The emerging markets of the Central Asian republics present unique opportunities for U.S. companies and development organizations," says Dan Waterman, Director of the IFDC Training and Workshop Coordination Department. "The SABIT program builds partnerships and provides technical assistance by training Eurasian business leaders in U.S. business practices."

Such training directly supports Eurasian economic and civil society development by encouraging market-based reforms, while generating valuable export and investment opportunities for U.S. industry.

"The interns were exposed to IFDC programs and approaches to problem solving," Waterman says. "IFDC also gained knowledge from the interns that will help us improve and expand our work in Eurasia."

Cotton is vital to the economies of both Tajikistan and Kyrgyzstan, so Nasyrova and Abduvohidov studied how cotton is grown and processed in the United States, and visited a large Alabama cotton farm and cotton gin. They also studied poultry, fruit, and vegetable processing. The interns visited a fertilizer plant, the Alabama Cooperative Extension System, an Alabama farmers cooperative, and Alabama A&M University.

"The interns also enjoyed the opportunity to sample life in America," Waterman says. "IFDC staff invited them into their homes and took them to local events."

Ainagul Nasyrova (left) of Kyrgyzstan and Bakhtier Abduvohidov of Tajikistan in an Alabama cotton field.

Photo by Lisa Loggins Thigpen

Rebuilding Agricultural Markets in Afghanistan Program. IFDC has been a subcontractor in the Rebuilding Agricultural Markets in Afghanistan Program (RAMP) since February 2004. RAMP works to restore food security in devastated Afghanistan by increasing agricultural productivity and output and by improving linkages among producers, processors, and markets. IFDC is helping develop the agricultural input market system. A divestment study of the Afghan Fertilizer Company was recently added as a new activity.

Despite a security challenge, the project has achieved significant results, including:

- Trained more than 2,521 agri-input dealers, importers, retailers, and extension workers.
- Collaborated with the International Center for Agricultural Research in the Dry Areas (ICARDA), FAO, and NGOs to organize field demonstrations on technologies for crop production and input use.
- Published more than 37,000 posters, charts, leaflets, and brochures on 20 topics and distributed the materials to agri-input dealers, farmers, and extension workers.
- Conducted a market survey to obtain current and reliable information on the status of dealer development and marketing infrastructure.
- Facilitated the formation and registration of seven provincial associations and one national association of agri-input dealers. Trained their executive officers in policy dialogue, business promotion, and networking.
- Facilitated the procurement of inputs from wholesale dealers and importers, and trained dealers in business negotiation.
- Initiated a marketing information system by collecting and disseminating current and reliable information on prices of inputs and crop produce in Afghanistan and in regional markets.
- Established a loan program under a RAMP job order. Eight agri-input companies were given loans for seed production and fertilizer procurement.
- Facilitated business linkages to promote business confidence and enhance business dealings among agri-input dealers, importers, producers, financial institutions, extension agents, and NGOs.
- Supported implementation of the Agricultural Input Supply Program (AISP) and Agricultural Marketing and Production Support (AMPS) activity.

Activities of the Agricultural Input Dealer Training and Development Project have increased the usage of high-quality fertilizers in several provinces. The training programs have enabled dealers to work directly with farmers and explain why price is only one criteria when selecting fertilizers. Project activities have linked remote retailers with importers to improve both the quality and quantity of fertilizer available to Afghan farmers. Improved business linkages in the marketing system have also improved the timeliness of fertilizer supply. The project is helping Afghan dealers to act as a group and influence policies that affect their future.

An extension worker in Takhar, Afghanistan, holds wheat grown from seeds supplied through the Agricultural Input Supply Program (AISP).

Photo by Mohammad Zai

Agricultural Marketing and Production Support Activity in Afghanistan. The Agricultural Marketing and Production Support (AMPS) activity helps the Afghanistan government combat the cultivation of illicit crops by distributing seed for legal crops, along with fertilizer, throughout the country.

"We want to lessen the economic hardship that farmers face when they quit growing a profitable, but illegal, crop, and to encourage them from reverting to illicit crops in the future," says John Allgood, IFDC Director, Finance and Administration Department.

A steering committee has been formed to assist the provincial and district implementing partners. The committee consists of members from the Ministry of Agriculture, Animal Health, and Food (MAAHF); the Ministry of Reconstruction and Rural Development (MRRD); the Ministry of Counter-Narcotics (MoCN); the British Department for International Development (DFID); USAID's Alternative Livelihoods implementing contractors including Chemonics; and IFDC.

The committee provides guidance in beneficiary selection and uses for collected funds, in validating provincial and district implementation plans, in providing ministers with progress status, and overseeing promotional campaigns. MAAHF took the lead in farmer selection, extension and training, and field distribution of vouchers to farmers. The USAID-funded RAMP project oversees the promotional campaign, and helps the government highlight "alternative livelihood" messages. RAMP also provides vouchers that farmers exchange for seed and fertilizer, and bags that certified private dealers use to divide 50-kg bags of seed and DAP into two 25-kg portions for individual farmers.

As an implementing partner, IFDC distributes seeds, fertilizers, bags, and extension materials to private sector dealers at district locations. All seeds are bought from local suppliers and, along with fertilizers, are distributed to the beneficiary communities through a market-friendly voucher program.

"Technical packages" are prepared, consisting of enough seeds and fertilizers to plant one *jerib* (1 metric jerib equals 1 ha) of land: 50 kg of urea; 25 kg of DAP; and 25 kg of wheat seeds, 300 kg of potato seeds, or 1 kg of onion seeds. The technical packages have been distributed to more than 675,000 farmers in all 34 provinces. IFDC works with and trains private sector dealers to provide the quality of inputs necessary.

The AMPS time frame is December 2005 to August 2006.

Food for Agricultural Revitalization and Market Systems in Afghanistan. The U.S. Department of Agriculture (USDA), through its Food for Progress Program (FFP), recently awarded IFDC a grant to monetize 5,150 tons of soybean oil in Afghanistan and 10,000 tons of soybeans in Pakistan. IFDC will use all proceeds from the commodity sales to implement the Food for Agricultural Revitalization and Market Systems (FARMS) project in Afghanistan.

FARMS provides technical assistance in improved nutrient management for food crops (wheat, maize, vegetables) and higher value crops such as oilseeds (peanut, soybean), along with technical and market development assistance to the existing milling industry.

"The ultimate goal of FARMS is to replace imports of some staple foods and food products, such as flour and cooking oil, with competitive domestic production," says Dr. Deborah Hellums, Coordinator – Field Projects.

Experience has shown that widespread dissemination to farmers of information on improved nutrient management techniques quickly increases crop production. IFDC will identify up-to-date nutrient management techniques for important crops to disseminate by combining results from site-specific on-farm demonstrations and research trials.

"We'll analyze various nutrient management practices and use decision support systems, or DSSs, to develop nationwide recommendations that will increase land productivity and reduce risks to farmers," Hellums says.

In the spring of 2006, IFDC began partnering with the Afghanistan Ministry of Agriculture and its extension staff to conduct site-specific research and on-farm trials in five important agro-ecological zones. The field data will be combined with DSS tools such as crop simulation models and GIS, and with geo-referenced databases, to identify appropriate nutrient management practices and production capabilities.

"A viable market is needed to absorb the increased crop output, so we'll focus simultaneously on market development," Hellums explains. "We'll link farmers with processors—millers and oilseed crushers—to add value to the produce and give farmers more incentives to increase production."

A significant part of the income generated will be used to support market development by increasing the capacity and efficiency of the domestic milling, or flour, industry. The

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initial focus will be on training programs and workshops to transfer information on the latest technologies and equipment, to identify credit sources for upgrading or buying equipment, to disseminate market information, and on a media campaign to promote production and consumption.

The FARMS project is a natural complement to IFDC's agricultural development activities because the USDA Food for Progress programs promote development of the private sector in developing countries and emerging democracies, Hellums points out. For example, IFDC's other activities in Afghanistan focus on helping input dealers source quality and competitively priced agri-inputs such as seeds, fertilizers, and CPPs from international suppliers. These activities address the first link in the value-added commodity chain by providing Afghan farmers with timely and affordable access to agri-inputs.

IFDC experience in the Balkans, Central Asia, and West Africa has shown that providing technical support simultaneously to the various stakeholders—input suppliers, farmers, and food processors—helps develop sustainable value-added commodity chains that benefit everyone, including consumers. In Afghanistan, these linkages will be instrumental in reaching the ultimate goal of increased domestic production of staple foods, and will provide a foundation for continued development.

Announcements

Mrs. Margaret Catley-Carlson has been appointed to the IFDC Board of Directors. Mrs. Catley-Carlson is actively involved in organizations that apply science and knowledge to national and international problems in freshwater governance, health, agriculture, environmental protection, international development, and development finance. She is Chair of The Global Water Partnership, of the Board of ICARDA (International Center for Agricultural Research in Dry Areas) in Syria, and of The Water Resources Advisory Committee for Suez/Lyonnaise of Paris. She is Vice Chair of the International Development Research Centre in Ottawa and is on the board of the Library of Alexandria (Egypt). Mrs. Catley-Carlson was president of CIDA, the Canadian International Development Agency (1983-89), and of the Population Council (1991-99). Her professional career began as a career diplomat Canada; she has been Deputy Minister of Health in Canada, and Deputy Director (Operations) of UNICEF, with the rank of Assistant Secretary-General of the United Nations. She has received eight honorary degrees and became an Officer of Order of Canada in 2002.

Mr. Willem A.M. van Campen began employment with IFDC effective June 1, 2006, as Project Coordinator of the "Promoting Agricultural Development Through the Creation of a Regional Inputs Market in West Africa (MIR)" project. Mr. van Campen received a Master of Science degree in Land and Water Conservation and Land Use Planning from the Agricultural University Wageningen, The Netherlands, in 1983. During the past 20 years, he has conducted long- and short-term assignments in the areas of natural resource management and rural development, including 5 years as a project leader inside the Malian cotton development company, Compagnie Malienne pour le Développement des Textiles (CMDT). Mr. van Campen is posted to Ouagadougou, Burkina Faso.

Dr. H. B. Singh returned to IFDC effective March 11, 2006, and is now posted to Headquarters as Senior Specialist – Marketing, RMDD.

Mr. Claude C. Freeman III returned to IFDC effective February 13, 2006, and is now posted to Abuja, Nigeria, as Agricultural Input Marketing Adviser – MARKETS.

IFDC
2006 International Training Calendar

Training Program/Workshop	Dates	Location	Program Fee, US $	Late Fee, US $
1. Competitive Agricultural Systems and Enterprises (CASE)	April 3-7	Sogakope, Ghana	1,000	1,200
2. Sustainable Management of Agricultural Trader and Producer Organizations	June 19-23	Bamako, Mali	1,000	1,200
3. Challenges in Developing Agricultural Input Markets in Africa	August 21-25	Arusha, Tanzania	1,000	1,200
4. Strengthening Market Information Systems	September 4-8	Cotonou, Benin	1,000	1,200
5. Decision Support Systems and Crop Modeling	September 4-8	Marrakech, Morocco	1,000	1,200
6. NPK Production Alternatives	November 6-10	Bangkok, Thailand	1,000	1,200

Note: A non-refundable deposit of $200 is required with each registration. The deposit will be credited toward the program fee, which is due 4 weeks before the program is scheduled. Thereafter, a *late fee* will apply. The program fee, less the deposit, will be refunded for cancellations made 2 weeks before the commencement of the program; thereafter, 90% of the paid fee will be returned and 10%, in addition to the deposit, will be charged to cover administrative costs.

IFDC reserves the right to cancel any program or change the dates and/or venue of any program without liability for compensation.

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