FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

POLICY BRIEF

AGRICULTURAL INPUTS

Successful agricultural input policies lead to tangible benefits for consumers, private sector enterprises, government agencies, and greater numbers of smallholder farmers who have improved access to high-quality agricultural inputs that lead to increased productivity and income. These benefits in turn have a positive impact on families and communities, helping to reduce poverty and hunger and improve food security.

As part of the Feed the Future initiative, USAID is working with governments, donor organizations, the private sector, and civil society institutions to increase capacity to develop sound policies that support the private sector in developing, commercializing, and broadly disseminating improved inputs to smallholder farmers. The outcome is context-appropriate, technically sound, fiscally responsible, and practical policy.

Good Policy Leads to Progress

With the right policies in place, countries can increase the efficiency of their public agricultural investments by up to 30 percent, according to the International Food Policy Research Institute (IFPRI). Toward that end, countries have made significant progress in achieving several input goals, including — for Africa — those set by the Africa Fertilizer Summit and Regional Economic Communities seed harmonization agreements.

Many countries use an agricultural GDP growth rate of 6 percent as a goal for sustainable growth. Frequently gains fall short of the target because only a small share of farmers have access to and properly use fertilizer, improved seed, and other inputs. In Africa for instance, according to the International Fertilizer Development Center, a number of countries would have to double fertilizer use to reach the 6 percent goal. Better policies

Improving Policy

The Feed the Future policy approach to advance food security focuses on countries with policy priorities most likely to reduce poverty and hunger. Using evidence-based research, this approach sets forth a framework for U.S. Government support using principles of good governance, efficient markets, sustainable rural livelihoods, risk reduction for vulnerable people, better coordination, and greater accountability. These efforts:

- Strengthen partner-country policy institutions;
- Increase country ownership of policy change processes and outcomes; and
- Support greater civil society and private sector participation.

The framework is detailed in a Policy Guide to complement country-specific priorities and foster collaboration among agencies. A series of policy briefs supports the Guide and explores topics critical to advancing food security.

GHANA

Balancing Public and Private Investment

Designing the right policy approach often means finding the right balance between public support and private investment to spur desired market activities. Fertilizer subsidy programs often create perverse market incentives and are not sustainable because of their expense. Yet subsidies can be an effective way to quickly spark private investment.

The Ghana Fertilizer Support Program tried to balance the benefits and costs of a subsidy program by building in a one-year exit strategy to limit expense and potential market distortion.

The result was a 38 percent increase in maize production and 17 percent increase in yields. However, the one-year time frame was extended.

SOURCE: Transcript and presentation from USAID's "Voucher Schemes for Enhanced Fertilizer Use: lessons learned and Policy Implications" seminar, Washington D.C., January 25, 2012.

make attainment of targets possible. Now is the time to stay the course and identify new opportunities where country policies can change to achieve greater food security benefits.

Seed: The Heart of Production

The seed industry, particularly in developing countries, suffers from a number of challenges that constrain establishment and expansion of operations. A risk unique to the sector is the sale of a product once each year that requires production at least 2–3 years in advance.

Smallholder farmers need new, improved seed varieties that are released rapidly so they can be multiplied and disseminated quickly. Yet significant disconnects exist between research, extension services, seed registration, and private sector access that slows down the process.

Specific policies have the potential to ease these constraints. For example, regional agreements on seed registration can reduce testing and registration processes in each country, allowing new seed varieties to reach markets — and smallholder farmers — more quickly. Trade, plant quarantine, and private sector development policies could have a similar effect.

Governments and the private sector have key roles to play, ranging from the regulation and enforcement of standards to controlling seed production and sales. Policies that focus on offering initial support to the private sector while enabling it to adapt to the market tend to promote a more vibrant and healthy seed industry. The question becomes how to balance and define these roles to best meet the needs of farmers and business owners in a specific context and culture. (See *Ghana: Balancing Public and Private Investment*).

In Africa and Latin America, local seed and grain vendors are often rural women. Linking these vendors to formal seed systems can speed the distribution of quality seed to the smallholder farmers. Importantly, women vendors have local knowledge and networks that facilitate distribution to farmers, many of whom are women, and are able to provide feedback to seed companies that will assist in providing better products and services to farmers.

Fertilizer: Accelerating Growth

Fertilizer companies, particularly in developing countries, face a number of supply- and demand-side constraints to increasing the profitable use of their product. Fertilizer is expensive and traded in large volumes on low margins. Suppliers are exposed to substantial risk in predicting the timing and demand for fertilizer in a given season. They must navigate global commodity prices and manage cash flow to buy and sell fertilizer on credit.

In many developing countries, particularly in sub-Saharan Africa, the business environment is further challenged by small, fragmented markets and low fertilizer usage. Farmers may not have access to

fertilizer sellers or may be unable to finance its purchase. Other constraints include: inconsistent product quality, lack of technical know-how for proper application, and weak or volatile output markets in which farmers can sell their products.

Many governments have addressed these issues by taking an active role in the fertilizer market with the intent to expand access to fertilizer or meet food security objectives, often through government input supply, subsidies, and/or broader price controls. Evidence from diverse economies suggests that these interventions tend to be expensive, often fail to reach the program's targeted beneficiaries, and frequently harm private fertilizer companies.

From a policy perspective, the crucial questions become: How to increase farm-level profitability from fertilizer use? How to increase farmer demand for fertilizer by reducing in-country costs in the value chain? And, how is it possible to do both while increasing yield response to fertilizer?

Each question brings its own layer of complexity. To lower in-country costs, policies would need to consider how best to create a competitive fertilizer market; expand access to finance and technical assistance provided by distributors and dealers at all levels in the fertilizer value chain; develop fertilizer quality and adulteration standards; reduce costs of licensing and other regulatory compliance; allow for new formulations that can be adapted to local conditions; and support agro-dealer networks that understand marketing and customer relations.

To address these policy complexities across multiple contexts, countries must adopt transparent and collaborative processes that involve all stakeholders and carefully consider the appropriate roles and responsibilities of each (See *Zambia: Accelerated Release of Seed is Result of Harmonization Work*).

Fertilizer is often sold in large, 50 kg bags. Women and other smallholder farmers can't afford to purchase this quantity of fertilizer, the bags are heavy to transport, and the quantity is more than they need for their small plots of land. Policymakers should work with fertilizer suppliers to explore options for making smaller quantities of certified fertilizer available.

The Soil Data Connection

Accurate soil data can have a profound impact on land management and fertilizer application that leads to increased agricultural productivity. But the limited data that does exist is often incomplete and outdated. Policies supporting soil data collection — surveys and mapping — and dissemination can improve on-farm practices and enhance fertilizer blending and application strategies that address unique and varying soil conditions and crop needs. The use of spatial information technologies advances this work and provides new tools to assess nutrient deficiencies and manage soil fertility. These steps lead to increased efficiency, potentially lower input costs, and greater yields.

ZAMBIA

Accelerated Release of Seed is Result of Harmonization Work

Zambia's efforts to harmonize seed policy, regulation, and third-party seed certification have spurred industry change. The country now has the highest variety release rates in Africa outside of South Africa.

Among the factors that have led to success are:

- Intense competition and growth of seed companies following liberalization
- Low cost of seed production
- High maize exports
- Strong research and development.

The private sector now conducts seed certification quickly through the South African National Seed Organization (SANSOR) and the Seed Control and Certification Institute (SCCI).

SOURCE: Building an Enabling Environment for Seed Sector Growth, USAID Enabling Agricultural Trade (EAT) Project.

Fundamentals of Inputs Policy

USAID has worked with multiple, in-country partners to identify the best policy reforms to accelerate food security strategies that complement country investments in agriculture:

- Improve regulatory, oversight, research, and private sector enabling environments
- Limit government involvement in the provision of seeds, fertilizers, agrichemicals, and mechanization, as well as production inputs for poultry, livestock, and fisheries
- Reduce input costs in market-oriented ways that expand competition and create sustainable market incentives for private input delivery without government subsidies
- Expand farmer access to safer and more effective inputs
- Improve and speed the processes for input supplier registration, certification, and approval that align with regional and international science-based agreements
- Strengthen a science-based biosafety regime that ensures widespread access to effective agricultural production technologies.

Making the Gender Connection

Women farmers struggle to access improved seed, fertilizer, livestock, technology, and equipment as well as the credit and technical assistance they need to be more productive farmers. The Food and Agriculture Organization estimates that if women farmers had the same access to resources as their male counterparts, they would be able to increase their yields by 20 to 30 percent and increase agricultural output in developing countries 2.5 to 4 percent. The result would be up 150 million fewer undernourished people worldwide.

To close the gender gap in agricultural inputs and help women farmers achieve their potential, agriculture policy must address the different needs of men and women farmers. National leaders must enact new policies that facilitate women's access to inputs that are tailored to their needs, and revise existing policy and regulation that inadvertently undermines their productivity. Governments should actively engage the private sector in marketing quality and affordable seed, fertilizer, and other key inputs to women farmers and provide the technical guidance and support to use them effectively.

Feed the Future's *Gender Brief* discusses a range of policy implications for this cross-cutting development priority.

KENYA

Private Sector Leads Growth in Fertilizer Industry

Kenya's phased market reform of the 1990s abolished import quotas and licenses, eliminated foreign exchange controls, removed fertilizer price controls, and closed government fertilizer outlets operated by the Kenya farmers' association.

Over the next 15 years, the private sector imported and distributed about 97 percent of domestically consumed fertilizer. Kenyan fertilizer prices better reflected world market prices and domestic market conditions; marketing margins (and prices paid by farmers) substantially decreased.

As a result, between 1994 and 2007, the average distance traveled by farmers to buy a bag of fertilizer was reduced by half to less than 5 kilometers, and national annual fertilizer consumption doubled.

Key elements in private sector-led growth included:

- Stable government policy regime
- Intense import and wholesale competition
- Cheaper credit by sourcing loans on international markets
- Mergers between local and international firms.

SOURCE: Minde, Isaac et. al. "Promoting Fertilizer Use in Africa: Current Issues and Empirical Evidence from Malawi, Zambia, and Kenya."

PHOTO CREDITS, P1: BOBBY NEPTUNE; **P2:** BRIAN CONKLIN/USAID; **P3:** CHARLOTTE CERF/USAID; **P4:** JOHN HEALEY PHOTOGRAPHY