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U.S. Aid to Agriculture: Shifting Focus from Production to Sustainable Food Security

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**U.S. AID TO AGRICULTURE: SHIFTING
FOCUS FROM PRODUCTION
TO SUSTAINABLE FOOD SECURITY**

*Marc J. Cohen, Ph.D.**

INTRODUCTION

Since the 1960s, agriculture has waxed and waned as a key theme of U.S. international development assistance. Periodic global food crises, such as those in 1974 and 2008, have put agriculture, food, and nutrition at the top of the U.S. development agenda.¹ But in more “normal” times, agriculture has had to compete for budget resources with other priorities, such as global health, child survival, environmental sustainability, and gender justice.²

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¹ See Sue Horton, *The 1974 and 2008 Food Price Crises: Déjà Vu?*, in THE GLOBAL FOOD CRISIS: GOVERNANCE CHALLENGES AND OPPORTUNITIES, 29-41 (Jennifer Clapp and Marc J. Cohen eds., 2009); Emmy Simmons & Julie Howard, *Improving the Effectiveness of US Assistance in Transforming the Food Security Outlook in Sub-Saharan Africa*, in THE GLOBAL FOOD CRISIS: GOVERNANCE CHALLENGES AND OPPORTUNITIES, 193-203 (Jennifer Clapp and Marc, J. Cohen eds., 2009).

² WORLD BANK, RURAL DEVELOPMENT: FROM VISION TO ACTION, A SECTOR STRATEGY (Oct. 1997), http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2000/09/23/000009265_3980319100022/Rendered/PDF/multi_page.pdf; *Measuring Aid to Agriculture and Food Security: Losing the Plot?*, Briefing Paper No. 72 ODI, OVERSEAS

Furthermore, the approach to agricultural development has shifted considerably over time. In the 1960s and 1970s there was an overwhelming emphasis on food production. Beginning in 2000, U.S. development policy makers began focusing on more holistic approaches that emphasize markets, consumption, nutrition, sustainable natural resource management, and empowering women, in addition to a continued focus on food production. The Presidential Feed the Future (FtF) initiative, launched after the 2009 L'Aquila G8 Summit, incorporates such a holistic approach to agricultural assistance. This paper explores the evolution of U.S. agricultural aid by examining shifts in funding and policy, and the implementation of FtF. The extent to which U.S. assistance supports agricultural and related rural development matters greatly, because the overwhelming majority of the world's poor people live in rural areas and depend on agriculture and related activities for their livelihoods.³

I. MALTHUS V. BOSERUP

Concern about the balance between the growing number of humans and scarce natural resources have long shaped debates about global agricultural development. Indeed, these concerns were the overarching framework for the Penn State *Journal of Law and International Affairs* Symposium from which the papers in this volume are drawn. The classic approach of the English Economist and Cleric Thomas R. Malthus remains influential today: "The power of population is indefinitely greater than the power in the earth to produce subsistence for man."⁴ Writing more than a century and a

DEV. INST. (2012), <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7588.pdf>.

³ WORLD BANK, WORLD DEVELOPMENT REPORT 2008: AGRICULTURE FOR DEVELOPMENT (2007), <http://siteresources.worldbank.org/INTWDRS/Resources/477365-1327599046334/8394679-1327614067045/WDROver2008-ENG.pdf>.

⁴ THOMAS R. MALTHUS, AN ESSAY ON THE PRINCIPLE OF POPULATION 4 (Electronic Scholarly Publishing Project, 1998) (1798), *available at* <http://www.esp.org/books/malthus/population/malthus.pdf>.

half later, Danish Economist Ester Boserup stood Malthus on his head, arguing that population pressure tends to induce innovations in markets, institutions, and technology.⁵ This debate is more than an interesting academic exercise. If policy makers conclude that Malthus was right, they are likely to support efforts to limit population growth (family planning). Officials who adopt Boserup's view (which has influenced the agricultural economics profession and development agencies) will channel resources to technological and institutional development.

II. THE GREEN REVOLUTION

In the 1960s, Malthusian pessimism about rapid population growth held sway,⁶ but this gradually gave way to technological optimism in the 1970s. Based on experience with hybrid cereal varieties used in developed countries, agricultural development experts sought to promote adaptation and adoption of high-yielding varieties in developing countries. The goal of this Green Revolution was to “grow the pile of food.”⁷ Experts anticipated that increases in agricultural production would ensure an adequate food supply to meet the growing demand stemming from population growth. This strategy relied on the use of high-yielding cereal crop varieties, which in the 1960s and 1970s usually required the application of mineral fertilizers and synthetic pesticides for optimal results.

⁵ See generally ESTER BOSERUP, THE CONDITIONS OF AGRICULTURAL GROWTH: THE ECONOMICS OF AGRARIAN CHANGE UNDER POPULATION PRESSURE (1965), available at http://allotmentresources.org/wp-content/uploads/2013/09/BOSERUP_1965_THE-CONDITIONS-OF-AGRICULTURAL-GROWTH.pdf.

⁶ See, e.g., WILLIAM PADDOCK & PAUL PADDOCK, FAMINE 1975! AMERICA'S DECISION: WHO WILL SURVIVE? (1967).

⁷ I am indebted to Curtis Farrar, former Executive Secretary of the Consultative Group on International Agricultural Research, for identifying this phrase.

The results on the supply-side were phenomenal. As Figure 1 indicates, world cereal yields rose dramatically between 1961 and 2009, with little or no increase in the land area harvested. Asia and Latin America experienced big jumps in productivity. Notably, increased production was seen in areas with a high percentage of food-insecure people, such as the Indian Subcontinent.

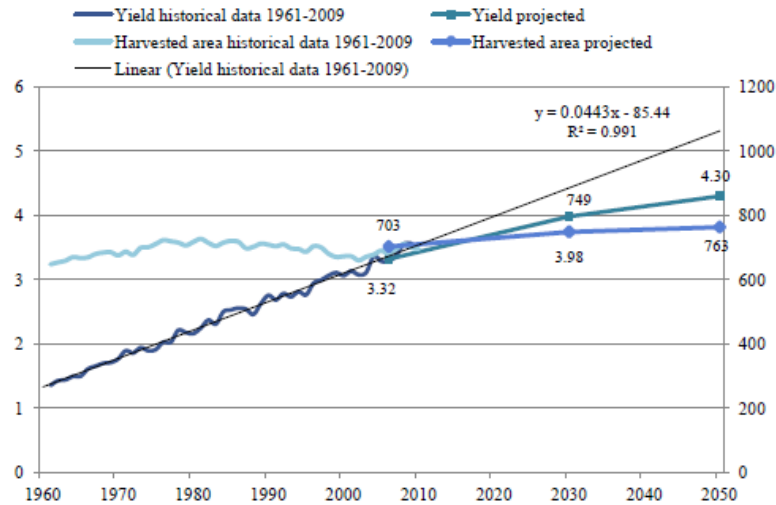


Figure 1. World cereals, average yield and harvested area, 1961-2009 and projections to 2050⁸

The benefits of using high-yield crops were not limited to the supply side. Where the Green Revolution took hold, higher productivity meant higher farm incomes due to the decrease in unit cost of production.⁹ More abundant harvests created on-farm employment opportunities and lowered food prices for consumers.¹⁰ Indeed, Green Revolution related production increases were a major

⁸ Nicos Alexandratos & Jelle Bruinsma, *World Agriculture Towards 2030/2050: The 2012 Revision* 15 Figure 1.9 (Food and Agriculture Organization of the U.N., ESA Working Paper No. 12-03, 2012), <http://www.fao.org/docrep/016/ap106e/ap106e.pdf>.

⁹ John W. Mellor, *Agriculture on the Road to Industrialization*, in INTERNATIONAL AGRICULTURAL DEVELOPMENT 136-54 (Carl K. Eicher & John M. Staatz eds., 3d ed. 1998).

¹⁰ *Id.*

factor in the long-term decline in real world food prices between 1961 and 2006 (see Figure 2). Increased rural prosperity stimulated demand for goods and services throughout the economy, spurring generalized economic growth.¹¹

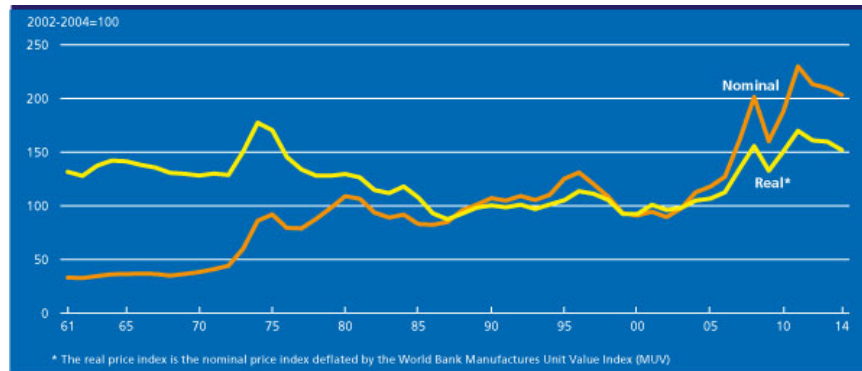


Figure 2. FAO Food Price Index in Nominal and Real Terms, 1961-2014¹²

Boserupian triumphs, however, had a dark side.

- In many instances, the need for purchased farm inputs (fertilizer, pesticides, and seeds) meant better-off farmers tended to adopt new technology earlier and reap most of the benefits. Poor farmers frequently lacked necessary capital to purchase external inputs. Without adequate financial resources, lower-income farmers relied on saved seeds and used organic material from the farm for fertilizer.
- Agricultural development program designs did not always ensure women benefitted along with men. In many developing countries, women farmers have less access to land, inputs, education, training, advisory services, and credit than men. In addition, women farmers have demands on their time related to child care and household tasks.

¹¹ *Id.*

¹² *World Food Situation: FAO Food Price Index*, FOOD AND AGRIC. ORG. OF THE U.N., <http://www.fao.org/worldfoodsituation/foodpricesindex/en/>.

- Misuse of farm chemicals necessary to produce high yields led to environmental and human health problems.
- Monocropping of high yielding cereal varieties led to loss of genetic diversity. Without genetic diversity, future plant breeding and food security are threatened.
- Productivity gains in cereals sometimes came at the expense of other important food crops. For example, in South Asia farmers abandoned lentils in favor of wheat and rice.
- Green Revolution technology had less promising results in Sub-Saharan Africa. Lackluster results were linked to the high cost of adaptation across extraordinarily diverse agroecologies; low investment in agricultural research and development; lack of infrastructure, markets, and supporting institutions; differences from other regions in the gender division of labor and in women's access to assets; and, in some countries, severe disruptions as a result of protracted violent conflict.¹³

III. WAXING AND WANING INTEREST IN AGRICULTURE

In the mid-1970s there was concern about widespread food shortages. Food prices rose rapidly, and Bangladesh and several countries in Africa experienced severe food emergencies. In response to these concerns, the international community held the 1974 World Food Conference in Rome where nations solemnly pledged to eliminate hunger within a decade.¹⁴ Following the

¹³ See John Kerr & Shashi Kolavalli, *Impact of Agricultural Research on Poverty Alleviation: Conceptual Framework with Illustrations from the Literature*, Environment and Production Technology Division Discussion Paper No. 56, INT'L FOOD POL'Y RES. INST., (1999), <http://www.ifpri.org/sites/default/files/publications/eptdp56.pdf>.

¹⁴ Horton, *supra* note 1, at 37-38.

commitments made at the World Food Conference, aid to agriculture rose rapidly until the mid-1980s. After the mid-1980s, agricultural assistance declined sharply until the mid-2000s (see Figure 3).

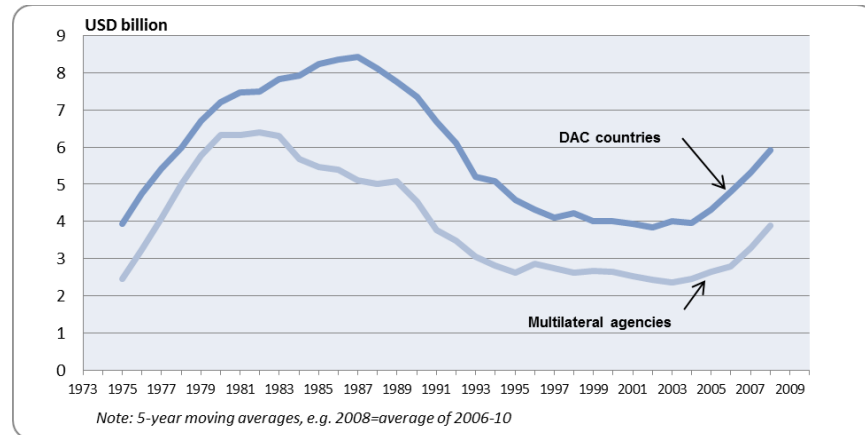


Figure 3. Trends in Aid to Agriculture and Rural Development, 1971-2010, in constant 2010 U.S. dollars¹⁵

A number of factors led to the steep and sustained decrease in aid to agriculture. First and foremost, the donor community declared victory when the Green Revolution led to higher cereal output and lower food prices.¹⁶ With a sense of victory came complacency, as donors and developing-country governments alike felt less urgency about investing in agriculture in light of the gains achieved.¹⁷ Second, donors increasingly focused on other development priorities—such as gender, environmental sustainability, global health, and child survival—and slashed overall aid budgets in the 1990s, leaving little funding for farm-related assistance.¹⁸ Moreover, because of sectoral siloing within aid programs, there was

¹⁵ ORG. FOR ECON. CO-OPERATION AND DEV., TRENDS IN AID TO AGRICULTURE AND RURAL DEVELOPMENT, <http://www.oecd.org/dac/stats/Trends%20in%20aid%20to%20Agriculture%20and%20Rural%20Development.pdf>.

¹⁶ RURAL DEVELOPMENT: FROM VISION TO ACTION, A SECTOR STRATEGY, *supra* note 2.

¹⁷ *Id.*

¹⁸ *Id.*; WORLD DEVELOPMENT REPORT 2008, *supra* note 3.

little effort to consider the intimate links between agriculture and rural development and other priority concerns in rural areas of the developing world. Third, many development experts consider agriculture a “sunset activity” and favor greater emphasis on manufacturing and services.¹⁹ By focusing on manufacturing and service industries, experts have missed an important reality of world poverty. Concentration of poverty in rural areas means that agriculture and related activities are likely to remain the main source of livelihoods for poor people for some time to come.²⁰ Finally, donors’ and international financial institutions’ emphasis on reducing the economic role of the state in favor of the market during the 1980s and much of the 1990s reduced the resources devoted to agricultural public goods in developing countries, such as research and extension. For their part, the governments of low-income developing countries devoted less than five percent of their budgets to agriculture in the early 2000s, even though for most such countries agriculture represented the largest share of gross domestic product and the main source of employment. These same governments allocated an average of twelve percent of expenditures to the military.²¹

IV. EVOLVING APPROACHES TO AGRICULTURAL AND RURAL DEVELOPMENT

The World Food Summit, held in Rome in 1996, issued an impassioned appeal for renewed attention to food and agriculture, calling the persistence of world hunger “unacceptable.”²² It set the

¹⁹ See, e.g., WILLIAM ARTHUR LEWIS, THE THEORY OF ECONOMIC GROWTH (2003).

²⁰ WORLD DEVELOPMENT REPORT 2008, *supra* note 3.

²¹ See FOOD AND AGRIC. ORG. OF THE U.N., 27th Sess., *Mobilizing the Resources to Fight Hunger*, U.N. Doc. CFS:2001/Inf.7 (June 1, 2001), <http://www.fao.org/docrep/meeting/003/Y0006E/Y0006E00.htm>; World Bank, *World Development Indicators*, <http://wdi.worldbank.org/table/5.7>.

²² FOOD AND AGRIC. ORG. OF THE U.N., ROME DECLARATION ON WORLD FOOD SECURITY (Nov. 13-17, 1996), <http://www.fao.org/docrep/003/w3613e/w3613e00.HTM>.

goal of halving the number of people living in hunger as of 1990 by 2015, and also emphasized that food security is about much more than “growing the pile of food,” as important as that remains; access to food and good nutrition are also essential.²³ Coming on the heels of the 1992 U.N. Conference on Environment and Development and the 1995 Fourth World Conference on Women, the Summit also placed considerable emphasis on sustainable natural resource management and attention to gender issues.²⁴ Finally, it strongly reaffirmed the right to adequate food. At least implicitly, delegates acknowledged the need to address equity, ecological, and gender issues, something that the Green Revolution did not do.²⁵ But, the Summit did not succeed in reversing the decline in public investment in agricultural and rural development.

V. SOARING FOOD PRICES: A SHOCK TO THE SYSTEM

In 2007, the long, steady decline in global food prices came to an end. Prices shot up, and the increases accelerated during the first half of 2008. Today, food prices remain above the levels of the mid-2000s, and many analysts consider the era of low food prices to have ended. By June 2008, world prices for beef and poultry had doubled over the levels of January 2003; wheat, corn, and dairy had risen threefold; and the price of rice, the most widely consumed staple, had shot up fivefold.²⁶ The causes of these increases were complex and multiple, including both short-term and structural factors:

- Higher fuel prices, which in turn raised the cost of agricultural inputs, operating farm machinery, and transportation;

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.*

²⁶ THE GLOBAL FOOD CRISIS: GOVERNANCE CHALLENGES AND OPPORTUNITIES (Jennifer Clapp & Marc J. Cohen eds., 2009) [hereinafter THE GLOBAL FOOD CRISIS]; GLOBAL FOOD-PRICE SHOCKS AND POOR PEOPLE: THEMES AND CASE STUDIES (Marc J. Cohen & Melinda Smale eds., 2011).

- Diversion of food and feed to biofuel, such as corn ethanol in the United States;
- Speculation on commodities markets;
- Environmental factors, such as prolonged drought in Australia, a key agricultural exporter;
- As prices rose, the imposition of export embargoes in key supplier countries such as India, which in turn led to panic buying by major importing countries, such as the Philippines, leading to further price increases; and
- The long-term decline in investment in agriculture.

Of course, global food prices do not necessarily determine national and local prices, as these are influenced by a wide range of government policies, how effectively local markets operate, the ability of households to produce at least some of the food they consume, etc. Nevertheless, broadly speaking, the consequences of the price hikes included:

- Severe hardship for low-income net buyers of food, including many small-scale farm families. For low-income people, higher food prices frequently mean having to choose whether to pay for food, health care, shelter, or education;
- Less healthy diets, as families often gave up meat, fruit, and vegetables in favor of maintaining calorie consumption from cereals to keep working;
- More poverty (but estimates vary widely and are controversial);
- Protests in more than sixty countries, mostly in cities, where people overwhelmingly depend on purchases to procure their

food. Some of these turned violent, *e.g.*, in Haiti, where rioting led to the collapse of the government.²⁷

Protests and riots in urban areas—especially in capital cities—are politically salient, and the escalation of food prices put food and agriculture squarely on the global front policy burner once more. In 2008, the United Nations issued a comprehensive action plan, which emphasized increased investment in smallholder agriculture as a means of producing more food, lowering prices, and boosting poor people’s incomes. Many heads of state and government attended a mini-summit on the food crisis in Rome. In 2009, the leaders of the wealthiest countries pledged \$22 billion in agriculture and food security aid to developing countries at the G-8 Summit in L’Aquila, Italy. According to the United Kingdom government, as of mid-2013, donors had disbursed \$16.4 billion, or more than seventy percent of the sum pledged.²⁸

VI. FEED THE FUTURE: A POST-GREEN REVOLUTION APPROACH TO AGRICULTURE AID

To meet the U.S. share of the L’Aquila commitments, the Obama Administration launched a new initiative called Feed the Future (FtF).²⁹ This \$3.5 billion program directs its resources to a limited number of countries that have developed a national agricultural investment plan.³⁰ Rather than simply supporting increased food production, FtF targets resources to inclusive agricultural growth, empowerment of women, improved nutrition, and sustainable and equitable management of land, water, and

²⁷ For more details on the causes and consequences of rising food prices, see THE GLOBAL FOOD CRISIS, *supra* note 26.

²⁸ G8 UK, LOUGH ERNE ACCOUNTABILITY REPORT (2013), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/205437/Lough-Erne-Accountability-Report.pdf.

²⁹ For more details on Feed the Future, see FEED THE FUTURE, <http://www.feedthefuture.gov/> (last visited Mar. 27, 2014).

³⁰ *About*, FEED THE FUTURE, <http://www.feedthefuture.gov/about> (last visited Oct. 10, 2014).

fisheries in what the program calls “climate-smart agriculture.”³¹ In effect, FtF has institutionalized the post-Green Revolution more holistic approach to supporting agricultural and rural development, although the program in many instances does continue to promote high external input technologies.

Oxfam America has commissioned research in several countries that have received FtF resources to assess program implementation. The findings represent a mix of positive and problematic elements:

- In Senegal, the program supports substantial efforts to manage natural resources sustainably.³² Conservation farming, which is an integral part of these efforts, has also contributed to yield gains for participating farmers.³³ However, farmers who participate in FtF-supported activities lack access to timely weather information, which hampers agricultural adaptation to climate change.³⁴
- In Tanzania, farmers participating in FtF-supported activities have likewise experienced productivity gains.³⁵ However, the benefits have mainly gone to producers with access to good quality land and to water. In contrast to Senegal, the program has paid insufficient attention to sustainability.³⁶ Also, FtF implementers engaged in little consultation with the beneficiaries about the design of the program, even though

³¹ *Id.*

³² See Henri M. Lo & Emmanuel Tumusiime, *The Influence of US Development Assistance on Local Adaptive Capacity to Climate Change: Insights from Senegal*, OXFAM AMERICA (July 24, 2013), [http://www.oxfamamerica.org/static/media/files/Senegal_Climate_Change_Resarch_Backgrounder_7_23_13.pdf](http://www.oxfamamerica.org/static/media/files/Senegal_Climate_Change_Research_Backgrounder_7_23_13.pdf).

³³ *Id.* at 35.

³⁴ *Id.* at 6.

³⁵ See Emmanuel Tumusiime & Edmund Matotay *Sustainable and Inclusive Investments in Agriculture: Lessons on the Feed the Future Initiative in Tanzania*, OXFAM AMERICA (Feb. 14, 2013), http://www.oxfamamerica.org/static/media/files/Tanzania_Sustainable_and_Inclusive_Investments.pdf.

³⁶ *Id.* at 25, 31.

FtF places considerable emphasis on farmer empowerment and engaging civil society in the development of national agricultural investment plans.³⁷

- In Haiti, FtF-supported farmers have achieved impressive yield gains, but it is unclear whether they can maintain them in the absence of aid resources.³⁸ The program emphasizes rehabilitation of Haiti's severely degraded watersheds and promotes the system of rice intensification, an approach to rice production that reduces the use of chemicals and fertilizer, which seems well suited to resource-poor farmers who cannot afford purchased inputs.³⁹ But, it has provided disproportionate training resources to men, notwithstanding the empowerment of women mandate. As in Tanzania, implementers did not consult beneficiaries about program design.⁴⁰ Also U.S. agricultural trade policy, which seeks to maintain overwhelming dominance in Haiti's rice market, lacks coherence with FtF's goal of supporting Haitian food production.⁴¹

CONCLUSION

Research on implementation of FtF indicates that there are a number of positive aspects to this new U.S. approach to aid to agriculture. After a long period of resource limitations, it provides substantial new funds in support of agriculture, bolstering food production while also taking into account the environmental and social context of agricultural and rural development. That said, a

³⁷ *Id.* at 4-5.

³⁸ Danielle Fuller-Wimbush & Cardyn Fils-Aimé, *Feed the Future Investment in Haiti: Implications for Sustainable Food Security and Poverty Reduction*, OXFAM AMERICA (May 1, 2014), http://policy-practice.oxfamamerica.org/static/media/files/Haiti_Feed_the_Future_RB.pdf.

³⁹ *Id.* at 33-37.

⁴⁰ *Id.* at 25-30.

⁴¹ *Id.* at 16; see also Marc J. Cohen, *Diri Nasyonan Ou Dirè Miami? Food, Agriculture and US-Haiti Relations*, 5 FOOD SEC. 4, at 597-606 (Aug. 2013).

more consistent effort to draw on farmers' own knowledge and definitions of problems in FtF programming would improve the initiative's results. This is not just a matter of engaging in genuine partnerships and encouraging beneficiary participation, as important as those are. Decades of development experience also shows that when people who are supposed to benefit from aid have a sense of "buy-in," they are much more likely to sustain the gains that they achieved after aid resources are no longer available. In addition, when U.S. trade policies work at cross-purposes with U.S. agricultural assistance, it is difficult for the latter to achieve a long-lasting impact. In low-income countries, U.S. efforts to promote agricultural development and food self-reliance are the best way to achieve viable and equitable trading relationships over the long term.