BEFORE CRISIS HITS: Can Public Works Programs Increase Food Security?

Fighting famine is basic to ending poverty and saving lives. Emergency aid, which arrives after the food has run out, isn’t enough. Households most in need of emergency aid often don’t have enough food during other times of the year, posing a broader challenge for devising programs that can cut hunger and build food security. Social protection programs, including grants, social assistance and public works programs, are one way to transform people’s lives and protect them both before and when disaster strikes. What works and under what circumstances is what policymakers and development experts want to know, especially those focused on famine breakout in Africa and Asia.

At the World Bank, we’re committed to creating new opportunities for people to end poverty and improve lives, helping countries meet the United Nations Millennium Development Goals. Social protection is a crucial part of success and we are actively engaged in working with countries to develop, implement and analyze programs that work. To understand the role these programs can play in helping people feed themselves and their families, the World Bank supported an evaluation of an ongoing program in Ethiopia. This public works employment program, designed to ensure the poorest households have enough to eat year-round, and to avert the conditions leading to famine in times of drought, is supplemented by cash grants for those who can’t work. A complementary initiative works to build household agricultural assets so families can better provide for themselves. The evaluation found that these measures boost food security, helping households better manage risk year-round. Now, Ethiopia, with the assistance of donors, is expanding the program to reach even more people.

For many, the word famine was defined by Ethiopia in 1984-1985, when hundreds of thousands of people died from lack of food brought on by a severe drought. Emergency aid saved countless lives, but it didn’t end the cycle. Over the next two decades, extreme poverty and harsh weather conditions, both floods and droughts, forced Ethiopian leaders to make regular appeals for emergency aid to feed people and in extreme cases, stop them from starving.

Donor fatigue, coupled with the Ethiopian government’s desire to better assist its people, pushed both to consider a new approach to stopping hunger and relieving extreme poverty. In 2003, the Ethiopian government partnered with donors and NGOs to create a working coalition to improve food security for the poor. The result was the Productive Safety Net Programme (PSNP), which went into effect in 2005. This program, the largest of its kind in Africa, initially targeted 7.6 million people (8 percent of Ethiopia’s population) who suffered chronic food shortages and lived in areas prone to drought. Through a public works component and direct grants for those who can’t work, the program aims to help households meet their food needs, keeping people fed and reducing the need to sell off productive assets.

People in the program are employed in public works projects 6 months out of the year, corresponding to the so-called “lean” period, when households tend to run out of food because it’s a few months after harvest season and planting is just beginning. The total payments vary depending on household size, but the median payment is about 186 birr (about $10) for the first year for a household, to a

What does a food gap mean? When there isn’t enough food, households cut down on the number of meals—on average, adults will get two meals and children three—and serve less desirable food. When food supplies are sufficient, households average three meals a day for adults and three to four for children.
Three surveys, in 2006, 2008 and 2010, were carried out covering beneficiary and non-beneficiary households in the four major regions of Tigray, Amhara, Oromiya, and the Southern Nations, Nationalities and People’s Region. The same 3,700 households were surveyed each time, allowing researchers to see how their circumstances changed during the period. The program was not randomly allocated and recipients had different characteristics when compared to non-recipients (who didn’t qualify for the program because they were not as food insecure), making it difficult to compare the two groups. Instead, researchers used generalized propensity score matching methods to evaluate the program’s impact, taking into account duration of participation. Researchers thus were able to account for selection biases in levels of program participation and measure the impact of the program by comparing people who had received benefits for five years versus those who had received the benefits for only one year (benefits were minimal in the first year). Researchers evaluated the impact of the public works program and the assets-building program on food security.

People enrolled in the program are better able to meet their food needs.

At the start, households reported a food “gap” of 3.6 months, during which they couldn’t meet the food needs of their families. After five years in the program, the food “gap” dropped by just over one month, reflecting a 29 percent decline in the time that households couldn’t meet their food needs. This translated into an increase in food security of 32 days a year.

The gains were even more apparent when researchers focused on households in more drought-prone regions, defined as areas where at least 50 percent of households reported living through two or more droughts during the survey period. In these areas, households that had received the public works benefit for five years saw a 25 percent decline in the periods in which they went without enough food, compared with households that received the program for only one year. Households living in areas less affected by drought reported a 42 percent decline in the time in which they couldn’t meet their food needs.

And during “lean” periods, households in the program for five years were better able to feed their children. The number of meals children ate during the lean season increased by 5 percent, compared with households in the program for only one year.
Households in the program also experienced a slow but steady rise in livestock and in the value of their productive assets—in other words, they accumulated more (or better) tools, such as hoes, sickles and ploughs, the very items that help families work the land. And there was a decline in the percentage of households forced to sell assets to maintain their families.

The program led to a boost in livestock holdings, such as sheep, goats and cattle. In areas where droughts were widespread, households who participated for the whole five-year period had an 11 percent increase in livestock holdings, compared with those in the program for just one year.

Beneficiaries also saw a slow and steady increase in the value of their productive assets over the period, compared with those outside the program, who saw the value of their assets fluctuate markedly during the period. And in a sign of increased stability, distress sales dropped. Shortly after the program began, 51 percent of beneficiary households reported distress sales of assets; by 2010, this had dropped to 34 percent. Among households not in the program (and can thus assume to have been better off to start with), the rate of distress sales dropped from 44 percent in 2006 to 28 percent in 2010.

Fears that the transfers through the public works program would “crowd out” informal transfers among households, or discourage people from new income-generating activities, proved unfounded. In other words, there was no sign that the program created dependency.

There was no reduction in informal transfers among households, which usually refers to gifts and loans. In fact, although not statistically significant, there was a small gain in cash and in-kind transfers among households. Similarly, there was no sign that the public works programs reduced the likelihood of people starting up non-farm businesses.

The public works program doesn’t just employ people, it has improved the country’s infrastructure.

Participants get involved in a variety of projects designed to help improve agricultural output and arable land. More than 40,000 projects are undertaken each year, such as creating terraced fields, laying down roads and setting up small-scale irrigation systems.*

The biggest gain in food security was among households that were in the public works program and had access to the program designed to increase household assets and improve agricultural output.

Households that were in the public works program for five years and also benefited from the program to increase agricultural assets and agricultural output improved their food security by 1.53 months during a 12-month period, compared with households that received one year of public works employment alone. When compared with house-

Ethiopian policymakers and international donors have long-struggled with the challenge of reducing poverty amid weather shocks that disrupt harvests and threaten households with starvation. After years of emergency aid programs designed to provide short-term relief, both Ethiopia and donors wanted to create a program that could help people secure and build their lives, rather than just react to disaster.

The result is Ethiopia’s Productive Safety Net Programme, which uses public works employment, social transfers and an agricultural asset-building program, to stabilize and strengthen poor households. Giving households a more steady income, through a public works program for those who can work and cash transfers for those who can’t work, helps them better prepare for and survive difficult weather conditions such as droughts and floods. The program to build agricultural assets helps households gain economic independence and stability. Together, the two make up an innovative social protection program that has already shown strong success.

Ethiopia, with the assistance of donors, is now expanding the program to reach an additional 600,000 people by 2015. With few large-scale social protection programs in place in Africa, Ethiopia’s experiences is a useful example for other countries dealing with extreme poverty, with or without the even more destabilizing weather shocks. Social protection is only one element in the fight against poverty, but it’s a critical one.

The evaluation shows that a broad social safety net can help people increase their food security and build their assets. But it takes time

Many programs to improve people’s livelihoods and build food security last only a year or two. Ethiopia’s program, by contrast, is now in its fifth year. It’s also been tweaked and rejigged as needed, and attention has been paid to ensuring people receive regular, predictable transfers. The attention to detail, and the commitment to continuing the program, are critical aspects of this successful social protection program.

The Human Development Network, part of the World Bank Group, supports and disseminates research evaluating the impact of development projects to help alleviate poverty. The goal is to collect and build empirical evidence that can help governments and development organizations design and implement the most appropriate and effective policies for better educational, health and job opportunities for people in developing countries. For more information about who we are and what we do, go to: http://www.worldbank.org/sief.

This Evidence to Policy note series is produced with the generous support of SIEF.

THE WORLD BANK, HUMAN DEVELOPMENT NETWORK
1818 H STREET, NW WASHINGTON, DC 20433

Produced by Office of the Chief Economist, Human Development Network, Communications/Aliza Marcus amarcus@worldbank.org