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Food-for-Education programs: Lessons for Uganda

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Food-for-Education (FFE) programs can help Uganda fight malnutrition and hunger while broadening access to primary education. Whether these programs involve in-school feeding or take-home rations, they have the potential both to improve student's school attendance and to measurably, if modestly, increase household food security. But the benefits and costs of different FFE program models, including Community Based School Feeding (CBSF) programs that may also contribute to local agricultural development, must be carefully considered if such programs are to be successful in improving the nutritional status of their beneficiaries, increasing educational attainment, strengthening human capital and, ultimately, accelerating human development in Uganda.

Introduction

Food-for-Education (FFE) programs hold out the promise of simultaneous progress toward two of the Millennium Development Goals: combating hunger and attaining universal primary education. Such programs link education to the public provision of food, providing an additional incentive for students to attend school and for their parents or other caregivers to allow the pupil to do so. Because they have the potential to increase educational achievement, improve nutritional status and household food security, and enhance cognitive development through the enhanced access they provide to education and to nutrition during important developmental periods for young students, FFE programs have been implemented in many countries around the world, including in Uganda.

Research shows that FFE programs do have an effect in increasing school participation, fostering learning, and supplementing inadequate diets. In Sri Lanka, take-home rations were found to have a six percent incremental effect on school enrollment. Studies of school breakfast programs in several places suggest that such programs lead to better attendance, higher levels of nutrition, increased school attendance, lower dropout rates, and positive effects on academic performance. However, these impacts are found often to be less than anticipated. The effect of FFE programs on school performance depends on a combination of factors, including the design and administration of the program, student characteristics, and school organization. Moreover, such programs also are shown to be more limited in their ability to contribute to other

development objectives, such as local agricultural growth, than has often been claimed. This brief provides an overview of school feeding programs, with particular attention to CBSF programs that also seek to foster local agricultural development, and assesses the potential benefits FFE programs may provide in Uganda.

Objectives of FFE Programs

In principle, FFE programs improve school participation by decreasing the net cost of school attendance by children for their households. Parents in Uganda must often weigh the benefits of sending children to school against the potential contribution that those children may make to household food production or meeting other household needs. Children provide household labor, help with farming and food preparation, and, in some cases, even bring home wages. These considerations increase the net opportunity cost of sending children to school. Providing a meal to the child at school or assuring a take-home basket of food for the student at the end of the month reduces this opportunity cost by increasing the immediate benefits of schooling to the child and his or her household. FFE programs thus apply the same principle that underlies the approach of Uganda's Universal Primary Education (UPE) program—by removing most tuition and several other costs associated with primary school attendance, the government of Uganda reduces the net opportunity cost

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parents face in sending their children to school, leading to increased school attendance.

Beyond economic incentives, FFE programs also are designed to contribute to the nutritional well-being of students and households. In-school meals alleviate short-term hunger, improve concentration, and allow children to better participate in school. Take-home meals, if they include a diversified set of foods or micronutrient-fortified foodstuffs, decrease nutrition deficiencies. Since disease and poor health due to malnutrition contribute to poor student participation and weak learning in school, provision of nutrient-dense foods through FFE programs can improve student performance.

Take-home ration programs offer an additional benefit. Since in-school feeding programs do not directly address the needs of the most nutritionally vulnerable members of households—children under two years of age and their mothers—their impact on overall household health is limited. Take-home rations reach beyond the individual student to the entire household, so do more to meet the needs of those in the household who are nutritionally the most vulnerable.

FFE programs can also support objectives that extend beyond school enrollment and nutrition. Chief among these is redressing gender imbalances in education. In many parts of the world, girls are more likely than boys to be kept home from school to care for younger siblings or to work in home-based enterprises. FFE programs that are targeted to female students provide positive incentives for households to send girls to school. And as will be discussed below, the implementation of FFE programs can be designed in such a way to potentially enhance local agricultural production and marketing.

Assessing Food-for-Education in Uganda

In 1997, the government of Uganda launched the Universal Primary Education program. In terms of increasing access to primary schooling, the UPE was an immediate success. Primary school enrollment increased from about three million children in 1996 to 8.3 million in 2009, and most primary-school age children in Uganda now attend school.

The UPE program has faced special problems in the country's northern region due to political insecurity, poverty, and cultural factors. The World Food Programme responded to lower levels of school performance by primary students in the north by starting FFE programs, beginning in 2005 with programs in Internally Displaced Persons (IDP) camps in the northern districts of Lira and Pader. Both in-school meals and take-home rations were used in different camps, although limited funding prevented some IDP camps from receiving any FFE program at all.

A rigorous quantitative evaluation study led by IFPRI assessed the success of these programs, with special attention to whether the outcomes attributable to the

FFE programs were affected by the timing of meals and the placement of incentives, either with the children directly through in-school meals or with their parents through take-home rations. Among the findings:

Enrollment. FFE programs for children from IDP camps had little effect on school enrollment: 84 percent of all school-age students were enrolled in areas with no FFE program, versus 89 percent for areas with in-school meal programs and 88 percent for areas with take-home rations. These statistically insignificant differences may be in part a measure of the successes already achieved by the UPE program, and of the diminished scope in the context of IDP camps for children to make significant contributions to household welfare and, thus, lower school-related opportunity costs for households.

Class repetition. At the start of the FFE programs in 2005, 44 percent of enrolled children were found to have repeated at least one class, due most likely to poor attendance, crowded classrooms, distraction caused by short-term hunger, and diminished cognitive abilities stemming from poor nutrition. The IFPRI study showed that FFE programs decreased class repetition by 21 percent for boys and 8 percent for girls.

School attendance. Both in-school meal programs and take-home ration programs had a significant impact on school attendance. For students aged 10 to 17 years, attendance among program participants increased 12 percent. Lower impacts (6 percent increase for those receiving take-home rations; 9 percent for in-school meal beneficiaries) were seen for children aged six to nine. In-school meals had the highest impact on girls aged 10 to 13 years (an increase of 13 percent), while take-home rations saw their highest impact on boys aged 10 to 17 years (15 percent). Where incentives to attend school are placed thus does not seem to change FFE programs' effect on school attendance.

Progression to secondary school. Designers of FFE programs suggest that they may improve students' progression from primary to secondary school. However, the actual impact may be difficult to detect, since FFE programs may entice children to remain in primary school where food is provided rather than progress to secondary school where it may not be. There is some evidence of this occurring in northern Uganda. Results of the study show some increased probability of children remaining or prolonging their stay in primary school rather than continuing to progress to secondary school.

Overall effects. While there is consensus that FFE interventions actually do increase school enrollment, attendance, school performance, and child nutrition, the evidence that has emerged from most program assessments, including that of IFPRI in northern Uganda, generally find fewer conclusive and significant relationships between FFE programs and school performance than anticipated. Greater clarity would likely result only from longer studies that capture longer-term behavioral effects. This highlights the need for long-term randomized controlled trials of FFE

programs in Uganda, which would improve policymakers' understanding of such programs' effects on education, nutrition, and development.

Community-based school feeding programs

CBSF programs are a particular type of FFE programs that use food from local farmers to supply nearby schools. This type of FFE program thus extends the nutritional and educational objectives associated with school feeding programs to establish what Sumberg and Sabates-Wheeler (2010) call "structured demand" for local agricultural produce. Such programs are designed to provide regular, reliable, and significant local demand for the agricultural produce of local farmers, contribute to changes in the economics of local small-scale agriculture, and thus provide incentives for farmers in the area to adopt more productive methods. Because they address both nutritional and agricultural development objectives, CBSF programs (also called home-grown school feeding programs) are seen as win-win programs.

In 2003 African governments, on the basis of these expectations and as part of continuing effort to foster agricultural growth, food security, rural development, and adequate child nutritional levels, endorsed CBSF programs as an element of the Comprehensive Africa Development Program (CAADP). CBSF programs have received considerable attention in Africa in recent years, particularly the national CBSF programs in Côte d'Ivoire, Ghana, and Kenya. While no large-scale CBSF programs have been implemented in Uganda, there is strong interest in implementing such programs both within several sectors of government and outside of government. Here we consider the strengths and drawbacks of such programs.

CBSF program design objectives

Small scale farmers in Africa generally have weak output markets. Following seasons of good production and a resultant glut in local markets, farmers receive low prices for their food crops, in particular, which discourages production in the following season. Strengthening and expanding food crop markets by increasing market demand should stabilize output prices and provide assured incentives for farmers to continue or even expand their food crop production. Moreover, smallholders' efforts to increase crop yields through improved farming techniques will be in vain unless markets can assure output prices sufficient to make the use of those techniques profitable for smallholders.

CBSF programs may present an opportunity for expanding local food crop markets by generating a stable, structured, and predictable demand for the products of local food crop farmers, thereby building the market and benefiting the wider local economy. Ideally, stronger and deeper local food markets will then become nodes for increased commercial activity, contributing to local agriculturally-driven economic growth as farmers increasingly supply the market, as greater numbers of consumers meet their food needs there, and as an array of complementary spin-off

commercial activities are established around this growing market. Moreover, as an income-effect of CBSF programs, food consumption by smallholder farmers supplying food to local CBSF programs is also expected to increase. If much of this increased consumption is obtained from local markets rather than home production, this spillover effect will also work to strengthen demand in local food markets and provide added incentives to local farmers to increase production.

Finally, in terms of the actual implementation of the school feeding aspect of CBSF programs, the community-based design is assumed to contribute to improved cost-effectiveness due to reduced costs of transportation, storage, and the lower local farm gate prices for community-purchased foods. Also, CBSF programs are expected to encourage and strengthen local ownership of school feeding programs, thereby increasing the scope for success and sustainability. In general, the participation of the community at all stages of the program—design, implementation of the program in local schools, and involvement in the supply of food needed for the programs—is expected to empower communities and assist them in identifying additional local solutions to address hunger and to build more vibrant local economies (WFP 2009).

Weaknesses associated with CBSF programs

In spite of these perceived advantages, CBSF programs face several problems in their design and implementation:

Food supply and access. Due to regional differences in agricultural production and in the institutional capacity to implement programs, CBSF programs may exacerbate problems of food supply and food access in some regions of the country, especially in regions where food supply is already constrained or where many members of the community have difficulty in gaining access to sufficient foods. The increase in prices that can be attributed to a CBSF program and will be to the benefit of farmers will disadvantage the household food security of poor net-purchasers of food in a community.

Problems of efficiency. There is an inherent contradiction in efficiently providing food to students and meeting agricultural development goals. For efficiency and sustainability reasons, CBSF programs should acquire high quality food as cheaply as possible from local farmers. Due to economies of scale, larger-scale commercial farmers are best positioned to offer food of a minimum quality standard in quantity at CBSF-appropriate prices. But quasi-subsistence smallholder farmers are the principal targets, at least in Uganda, of government efforts in agricultural development. As such, the trade-off in implementing a CBSF program must be resolved between efficient procurement of high quality, locally produced food and assisting smallholder farmers to participate profitably in local food markets.

Lack of standardization. Conventional in-school feeding and take-home ration programs use standardized, often nutrient-fortified foods. With CBSF programs, the food provided the students or their households is unlikely to be strictly standardized. Where foods are locally purchased to boost smallholder farmer incomes, local food availability will determine the type and quality of food provided. Nutrient-dense foods will not necessarily be obtainable in all communities where CBSF programs are being implemented. When the community purchases locally produced foods for school feeding, this may come at the expense of nutritional content.

Local politics. CBSF programs are subject to local politicization that may compromise their effectiveness. Food supply middlemen or local politicians may influence the tendering processes for such programs, compromising food and service quality and potential cost-savings.

Managerial capacity. A minimum level of managerial and implementation capacity is needed at local levels to implement a CBSF program properly. Some communities may have inadequate administrative capacity to meet the performance requirements of a CBSF program.

Monitoring. Monitoring of CBSF programs may pose a serious challenge, especially in areas that are hard for implementing partners or staff from ministries with oversight responsibilities to access. In the recent past, oversight deficiencies have enabled unwanted practices and promotion of self-interest to flourish in some CBSF programs at the expense of community benefits.

Implementation of CBSF programs

In light of these constraints to the successful execution of CBSF programs, the following are among the

essential elements in trying to implement them.

Good governance. CBSF programs need political commitment and good governance. These ensure an environment in which it is possible to produce food at needed levels, sustain this production, and ensure the efficient movement of food to school feeding programs.

Complementary public investments. CBSF programs require adequate local transportation and marketing infrastructure and sufficient administrative capacity in the community for program implementation. Significant budget allocations for these purposes need to be secured and the means of sustainably funding these resources in the future ensured. This is an entry point for donor agencies willing to fund such programs.

Clear division of implementation responsibilities. At national level, potentially several ministries might want to take responsibility for running a national CBSF program, particularly Education and Agriculture. The lead ministry must be clearly designated and must clearly guide implementation and coordination of the program, with well-defined roles and responsibilities of cooperating ministries.

Clear guidelines. The respective duties and responsibilities of central government, local governments, and local communities in implementing CBSF programs must be clearly stipulated. The principle of subsidiarity should apply, whereby national and district-level authorities only take responsibility for those tasks which cannot be performed effectively and responsibly within the communities concerned.

Conclusion

In other developing countries where FFE programs have been implemented, increased primary school enrollment, better attendance and reduced dropout rates

Advantages and disadvantages of Food for Education programs

Advantages:

- Provides incentives to children to attend school and for parents to send children to school because the opportunity cost of keeping children at home is higher than sending them to school.
- Better fed children are more attentive and learn better, their cognitive ability is enhanced.
- Programs can target students who are most vulnerable or most in need of improved educational performance.
- Possible improvement in nutritional status.
- Impact can be evaluated in relatively short period (2–5 years) by tracing educational progression of beneficiaries.
- Community-based food procurement may strengthen local agricultural markets and agricultural production, improving the welfare of local farming households.

Disadvantages:

- School-age children are not the most nutritionally vulnerable people in the population. They will have passed the crucial age for ensuring good nutrition from birth to 24 months of age.
- FFE programs cannot compensate for poor school facilities, insufficient trained teachers, or poor fit between curriculum and local job market.
- Targeting for in-school meals may be difficult—denial of benefits to some students, difficulty in choosing targeting criteria, and so on.
- FFE success may require supplementary programs to address other opportunity costs of education, increasing costs.
- Sharing of take-home rations may dilute the benefits that were intended to accrue to intended target population.
- Price increases caused by CBSF programs adversely affect the food security of local poor net-purchasers of food.
- For efficiency and sustainability reasons, CBSF programs should acquire high quality food for as cheaply as possible from local farmers. Yet larger-scale commercial farmers offer the lowest-priced food at the highest quality, not smallholder farmers who are the principal targets of government-led agricultural development programs.

have been seen. These programs work best, however, within a relatively high-quality learning environment for participating students. In Uganda, although enrollment rates may be high due to the UPE program, student attendance frequently is found to be highly irregular because of poor facilities, poor teaching, unofficial levying of school fees to cover local school costs, and concern that, above a basic level of training and literacy, the education obtained may not lead to better employment opportunities. In such a context, the incentives that FFE programs create to improve attendance are unlikely to be as effective. For many of the reasons listed in the text box here, FFE programs cannot be applied successfully in all contexts.

However, with proper complementary investments in school infrastructure and teachers, FFE programs present an opportunity to attract children to school, improve educational attainment, and increase access to the personal and household benefits of better education. As FFE programs are costly, they should be targeted based on geography, local household poverty rates, membership in identified vulnerable groups, or specific student characteristics such as gender. Studies of the cost effectiveness of FFE programs are limited, but preliminary work in Uganda and other developing countries suggests FFE programs have the potential to increase school participation if implemented in a targeted, informed, and judicious manner.

Policymakers should also consider the various models for FFE programs, as different development objectives can be attained based on the model used. For instance, take-home rations may improve broader household nutrition, including that of pre-school-aged children and their mothers. Policymakers should also consider the placement of the incentives offered through FFE programs: take-home rations raise parents' incentives to send children to school, while school feeding programs place the incentive with the child.

In deciding what sorts of households should be targeted by FFE programs in Uganda, policymakers should remember the basic principle motivating such program: reducing the net opportunity cost of sending a child to school. FFE programs should be targeted to poor

households that are facing problems with nutrition and that stand to gain economically, in decisive ways, by keeping children at home. With such programs available to them, parents will find it more reasonable to send children to school than to involve them in the household economy at the expense of learning.

Finally, CBSF programs need to be used prudently. They are not always the best option for attaining the varied objectives of local agricultural development and educational and nutritional improvement attributed to them. The contradiction inherent in CBSF programs between efficiently providing nutritious food to students and meeting agricultural development goals through increasing returns to small-scale farmers places limits on the programs' usefulness as a way to increase overall agricultural development. Similarly, the increase in local food prices that a CBSF program may cause will disadvantage household food security of poor net-purchasers of food in a community. A targeted household food security intervention may be necessary to complement CBSFs in many communities.

For further reading

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