



**Comprehensive
Assessment Report**
August 19, 2009



**Assessment of
Local Production for School Feeding
in Ghana, Kenya, Mali and Rwanda**

USDA Foreign Agricultural Service
Office of Capacity Building and Development



**Prepared for
The Bill and Melinda Gates Foundation**



Assessment of Local Production for School Feeding in Four Sub-Saharan Africa Countries

I. Introduction

Overview

The United States Department of Agriculture assessed the feasibility of implementing a locally produced school feeding (LPSF) program to increase small-scale farmers' agricultural productivity and marketing capacity, and thus improve incomes, in four Sub-Saharan African countries. When foods grown by local smallholder farmers are procured for new and expanded markets such as school feeding, the lives of the farmers may be expected to improve in several ways. Besides raising household income for participating farmers, the nation's overall rural development is promoted. In addition, nutrition improves for students, which increases the likelihood that they will complete formal education, that they will be better prepared to provide for their families, and ultimately, and that they will be better able to contribute to the country's long-term development.

The assessments were conducted in:

Mali – April 26-May 8, 2009

Ghana – June 1-12, 2009

Kenya – June 19-July 1, 2009

Rwanda – July 8-22, 2009

Government officials from these countries requested assistance from the Bill and Melinda Gates Foundation to help determine the feasibility of LPSF and the potential to raise incomes for the poorest smallholder farmers, including women farmers. Each assessment was conducted by a team led by the USDA, with technical assistance provided by the United Nations (UN) World Food Programme (WFP). Using qualitative methods, a team of four persons visited with government bodies, UN agencies, non-governmental organizations, farmers, traders, schools, and others in each of the countries. Assessment teams (AT) met with organizations and individuals who worked in all areas of school feeding, agricultural production and processing and in marketing. Each team was assisted by a local in-country coordinator and in-country WFP staff.

In each of the four countries women contribute a substantial proportion of the farm labor. In Ghana, for example, almost one-half of the women are farmers. Yet in traditional societies, these women do not usually benefit from training or inputs available to men farmers and their views or ideas are not heard during government policy development processes. Therefore, the assessment teams made extra effort and explicit requests to meet with women farmers or food processors, sometimes meeting separately from men if culture dictated.

The assessors made every effort to gather information in culturally sensitive ways. Translators were used so farmers could speak in their first, local language, rather than in English or French. Because few smallholder farmers are literate, information was gathered through informal

discussions in the school yard, in a classroom, under a tree, or in a village gathering place. Most field visits were in food insecure areas of the country where school feeding programs are needed most. Many of the communities are far off a paved road. Each country visit was arranged so that school feeding programs could be observed first hand. Collaboration with WFP and United States Agency for International Development (USAID) offices in each country provided recommendations for visits to non-government and public programs that would allow assessors to see development efforts first hand. The individual country reports include extensive lists and maps of the organizations and locations from where data was gathered, in addition to a list of cited documents.

Country differences

The countries visited are each at a different stage in transitioning from a school feeding program that relies heavily on external funding and implementation to one that relies on government funding and implementation. The WFP and the World Bank, in a 2009 document, “*Rethinking School Feeding: Social Safety Nets, Child Development, and the Education Sector*” classifies each of the countries at the following stages (5 possible stages, 5 being the most advanced):

Mali – Stage 2

Ghana – Stage 3-4

Kenya – Stage 3

Rwanda – not classified, beginning stages

Because each of the countries is at a different stage, the assessment in each took a slightly different focus in order to provide feedback and guidance to the respective governments and school feeding program implementers. Yet, there were many strengths and challenges common to all four countries that may provide some guidance to the country governments as well as to other stakeholders who may be interested in furthering the practices of locally produced school feeding programs. The conclusions of those common findings as well as recommendations are presented in this report. An extensive report written for each of the four individual countries provides country-specific findings and recommendations. The country reports are attached as appendices to this report.

A WFP report, *Home-Grown School Feeding: A Framework to Link School Feeding with Local Agricultural Production*, suggests three core areas for developing school feeding programs that rely on locally produced and purchased food. This report addresses each of these three areas:

1. Institutional and policy development, including school feeding program and policy
2. Agricultural development
3. Strategic procurement

The USDA assessment reports present findings, conclusions and recommendations in this format.

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II. FINDINGS AND CONCLUSIONS

A. Institutional Policy

1. Many school feeding programs at the national level lack integration across government ministries.

While Ghana was the most advanced, like the other three countries, it lacked formal linkages with other government ministries and stakeholders necessary to implement LPSF programs. A well designed LPSF program, as envisioned by WFP, addresses all the elements of a complete school feeding program, from production to consumption. Multiple objectives are expected to be achieved from these types of programs, including increased agricultural production, reduction in poverty, increased income for smallholder farmers, increased food security, increased school attendance and retention, as well as improved education performance by school children. To achieve such a wide variety of objectives requires strong government collaboration across ministries; the Ministries of Education (MoE) cannot successfully implement such a broad program by themselves. This collaboration is required internally within governments, as well as externally with donors, non-governmental organizations (NGOs), WFP, and other potential partners for carrying out the LPSF program.

In none of the four countries visited by the AT were there complementary, coordinated, targeted, government initiated supply-side interventions into agricultural production such as irrigation or smallholder credit schemes, in the zones or districts that were implementing LPSF programs. The AT heard from a variety of stakeholders in all four countries that even when agricultural development projects are successful in increasing production, market options for their product sales are very limited. While Ministries of Agriculture (MoA) officials expressed support for the LPSF concept, in most cases they did not have specific or direct strategies to increase agricultural production for sales to school feeding programs.

2. Definitions of “sustainability” vary.

Although each country visited by the AT had a different definition of sustainability, a robust and sustainable school feeding (SF) programs has at least four essential dimensions according to the WFP:

- The policy guidance must clearly address the critical factors that are essential for improving child nutrition, learning, school attendance, and retention.
- Purchase structures that are operationally feasible must be identified.
- Adequate capacity must be built on the ground to purchase, store, handle and process the food required in SF programs.
- Adequate funding must be available not only for the purchase of food and food-related services, but also for providing the management and technical training required for effective

decision-making and implementation.

There are a variety of methods by which a government can achieve a sustainable school feeding program; but the first step is deciding how it will define sustainability.

In Ghana and Kenya, the government provides national funding for the program, but does devolve the management of it to the local area, believing this assures community buy-in as well as providing economic benefits to the local community that will further secure their support for the program. While neither Rwanda nor Mali have significant school feeding programs at this time, their respective MoE view management and responsibility for any SF program to rest primarily with the school and the community. They anticipate that School Management Committees or Parent Teacher Associations can arrange for parents to provide in-kind donations of food or cash. Governments in both countries believe this model ensures the highest degree of community ownership and sustainability of the program. The central funding model appears to be more realistic to the AT. Both models will require substantial administrative and technical assistance to support program delivery, while the Rwanda and Mali vision also includes overcoming the additional challenge of sourcing donated food in already food-insecure local communities. In several of the countries, the ATs heard of plans to support SF programs with school gardens. This raises a variety of concerns from the AT: the school would need a sizable farm to produce enough food to feed all of the children a meal everyday of the school year; it does not address the problem of seasonality of food; it does not deliver economic benefits to smallholder farmers; and increases the risk that school children or school staff would be forced to labor in what has essentially become a farm.

3. When a school feeding program depends on food donated from parents, it does not address economic growth of local smallholder farmers.

Both Mali and Rwanda plan to implement national school feeding plans sourced mainly from parental contributions. However, one of the primary goals of LPSF programs is to provide economic benefits to smallholder farmers, primarily by increasing incomes through the sale of food products to the school. Parent-sourced programs eliminate not only the key opportunity for them to benefit economically from the program, but may also provide a disincentive for parents to send their children to school. When those same farmers are expected to donate food to a school feeding program rather than sell to them, it has several potentially negative impacts:

- Loss of potential income by donating instead of selling food products to the school,
- Loss of the economic benefit when children attend school instead of working at home, and loss of economic benefit of having children consume a free meal at school that allows food at home to be used for other purposes.

Because school feeding programs must first feed children, the AT is also concerned that parents will be unable to donate food to the schools in a sustainable, consistent manner. Conversations with members of farmer groups and school committees found that many, if not most poor

households, are unable to meet their own income or food consumption needs. Consequently these individuals are likely unable to contribute adequate foodstuffs for sustaining a local school feeding program in their community. With such limited production in the vulnerable geographic areas, it is unlikely these farmers would have adequate surplus food to sell or donate to schools. The Millennium Development Goal Village Project in Tiby, Mali was depending on food donated by parents to support their school feeding program. The first year the school canteen was able to function for one month; the second year they served meals for just two days.

4. There is a need to build management capacity from the farm up to the national government.

In each of the countries visited, the AT noticed capacity building at all levels and for all stakeholders was clearly needed to ensure the success of LPSF programs. Beginning at the local level, head teachers and school management committees need training in business development and management in order to make sound economic and financial decisions related to food processing, storage, and handling. Traders need technical assistance, as do farmers if they are to sell in bulk through tenders. An educational effort is needed, and should include training about profit margins, wholesale versus retail prices, and selling in volume. For example, in Kenya the bids farmers submitted to sell foods to schools were so high that the tender process had to be re-opened. At the government level, ministries need technical capacity building to effectively administer government feeding programs. In northern Mali World Education trained women to manage the SF program, including taking attendance and preparing the meals. In Ghana many of the decisions regarding school feeding are made at the district level, yet training for head teachers is limited.

5. There are few formal and comprehensive policy documents to guide LPSF implementers.

While each country visited was in a different stage of program planning or implementation, as a whole the AT saw no comprehensive policy planning. Countries had not clearly defined their objectives and created policies that support implementation of those objectives. While Ghana had extensive policies at the national level, they did not carry down to the school level. For example, parents were unaware of how caterers or cooks were hired or conducted procurements. In Kenya, strict procurement regulations severely limited participation by smallholders, farmer-based organizations (FBOs), and small traders. None of the countries had agricultural policies that specifically addressed LPSF and consequently, at the local level, extension agents or MoA officials were not in a position to help bring smallholder farmers into the procurement process.

6. Food safety processes are not well defined.

The countries visited by the AT lacked comprehensive, clearly defined guidelines on food safety. This includes quality of products, handling, storage, cooking and consumption. Some basic food safety practices were observed, although not consistently. Cooks in Kenya were required to test

negative for internal parasites. All schools observed practiced some degree of hand-washing prior to mealtimes, some with soap, but most without.

In Ghana, storage facilities at most schools visited by the AT were inadequate to prevent spoilage and infestation and could not hold more than two weeks worth of commodities. The Ghana School Feeding Program (GSFP) lacks guidelines regarding how foodstuffs should be handled and stored. In Kenya, there was a noticeable difference in the quality of storage between schools with experience in a WFP school feeding program, and those that had not. WFP sets detailed guidelines regarding food storage and monitors the implementation of those guidelines. The schools which did not benefit from those guidelines had inadequate storage spaces. The AT assumed the WFP schools had the benefit of better food safety and handling procedures and training that was reinforced by regular training and monitoring.

7. Monitoring and Evaluation processes need to be increased or developed to assure program quality.

The ATs saw only minimal monitoring and evaluation (M&E). In Kenya the AT observed established and regular reporting requirements for their procurement process. However, the AT questioned whether the collected data could be used to measure the effectiveness of the school feeding program. While the data helped show the way schools were buying the food, it did not document how the school feeding program was benefiting Kenya's educational goals and income generation objectives. Ghana has some monitoring and evaluation at the national level but GSFP administrators acknowledged that the process needs to be more rigorous and broad, especially at the district and school levels. Those countries without strong policy guidelines, such as Mali, had not yet established any sort of M&E.

8. Governments could improve understanding of the benefits of purchasing at various levels and scales.

The AT witnessed a variety of purchasing models in each country visited; each selected to achieve different goals. In Mali, the draft government plan expected parents to donate staples, with schools using government funds to purchase cooking oil and food for the sauce. The intent of the SF program there was to achieve 100% school enrollment. The AT was concerned that having to pay school fees for school lunches might be a disincentive for parents to send their children to school. At the same time, a donation-based approach does not meet the income generation or increased production objectives of LPSF.

While bulk purchases at the district level, such as in Ghana, might be more economically beneficial, these purchases remove the transparency that is gained when school management committees manage the process under the watchful eye of their local community, as is the practice in Kenya. District-level purchases also remove the economic benefits that might flow to local, smallholder farmers. Scale is also a factor when involving women farmers in school

feeding programs. In Kenya, when schools purchase directly from the local community, they are more likely to buy from women.

9. Managing a school feeding program takes a significant time commitment from head teachers and takes them away from their primary duties.

The AT heard concerns raised by USAID and NGOs regarding the demands placed upon head teachers, many of whom they had invested considerable time and training on education and other management issues. These organizations added that national and local governments are beginning to perceive head teachers as the solution to many problems that schools and national education programs face, regardless of how significant those programs might be. Every head teacher that the AT met with spoke of the importance of school feeding and the high value it brings to the school, including positive impacts on school attendance and retention rates as well as student capability to learn. They added that a LPSF program requires more of their time than a program that relies on donated commodities. In Mali, for example, head teachers themselves went to the market to purchase food for the school. In Ghana, some head teachers hired and supervised cooks in collaboration with the district level caterers.

B. Agricultural Development

1. Schools chosen for LPSF programs are in food deficit areas where there is inadequate production to source the program.

SF programs in each country are not universal interventions; they target schools that have the lowest attendance rates, highest poverty levels, and high malnutrition rates. As a consequence of this targeting, they are often in areas that are the most food insecure, characterized by low levels of agricultural productivity. Such a level of food insecurity would severely hamper the LPSF, in the view of the AT. It would be challenging for the program to meet its objectives to purchase local products without complementary targeted agricultural capacity interventions. Many farmers visited by the ATs in each country said they would like to sell their commodities to the schools, but also told of food in-security at the household level. Regardless of their desire to sell to schools, smallholder farmers in these areas often lack the capacity to increase production to meet that demand or take advantage of new market opportunities.

2. The price of inputs often exceeds the perceived benefits to farmers.

In every country visited farmers expressed challenges typical of smallholder farmers throughout Africa: lack of access to credit at affordable interest rates, difficulty in accessing fertilizer and viable seed, inadequate rainfall, lack of mechanization or sufficient manual labor, and a land tenure system that does not encourage long-term investment in improving soil fertility and structure. In Mali, few banks were willing to lend to smallholder farmers. Those that did charged as much as 30% interest. Instead these farmers turned to farmer based organizations where they

were learning to develop business plans with the hopes of being perceived as more credit worthy by agricultural lenders. In Ghana, traders often extended credit to farmers in order to assure a supply at harvest time. With low yields, farmers may pay back loans with as much as one-third of their harvest.

3. Smallholder farm structure limits production and income.

School feeding programs are targeted to reach vulnerable populations. Often, these are in areas that are food insecure where farmers are not even able to grow enough food for their own household consumption, let alone meet local market demands. Therefore, in its current state, these smallholder farmers would be challenged to produce sufficient food to supply the additional market created by the school feeding program. In each of the countries visited for this assessment, farmers told of an annual pattern of selling their crops at harvest time to pay back creditors and for quick cash, even though prices were low. Few had storage facilities to keep products until market prices increased, or even for their own consumption. Consequently, many were forced to buy back these same commodities in the market at higher prices later in the season. Labor was an additional constraint noted in Mali, as farmers rely on family members of all ages to plant and harvest. Many Malian farmers said they lacked labor to cultivate more land, even if they had better access to appropriate inputs.

In addition to limiting income because of quick sales at harvest time, farmers also received a small portion of the market value of their products due to economy of scale. In Kenya, for example, many levels of middle-men are making a profit. A farmer may have only 100 Kg of grain to sell to a small trader, the trader consolidates the grain with that of five other farmers and then sells it to another trader who consolidates the grain, yet again with that from small traders in a nearby larger town, and so on. Because of small volume, the smallholder farmer is not in a position to negotiate optimum prices, and consequently a very small percentage of the market price goes to the farmer.

4. Significant post-harvest losses impact food supply and production profitability.

Official and farmers' estimates of post-harvest loss varied but ranged from 10-30% for pulses and grains in Kenya to 50% for fresh fruits and vegetables in Ghana. At each stage of the value-chain, food was lost to spoilage or infestation. In food insecure areas, this loss impacts food supply even more.

5. Limited crop diversification threatens food security.

Kenya is an example of many smallholder farmers in many Sub-Saharan African countries shifting from traditional crops to mono-culture maize production; in Mali and Ghana many farmers were moving from millet and sorghum to rice production. In Rwanda officials are encouraging intense planting of food crops such as bananas. This shift to planting just one crop

can exacerbate problems with soil fertility, especially in the long-term, and can increase the risk of food insecurity in drought prone areas.

In an effort to grow more food, farmers in Rwanda are cultivating extremely steep hillsides, leaving the exposed soil highly vulnerable to erosion. In each of the countries, the AT observed farming practices that threaten natural resources and put the country at risk for food crises, especially in case of a natural disaster.

6. Ministry of Agriculture and private extension services are not able to meet the needs of smallholder farmers.

In each of the four countries, MoA were taking leadership for or working with NGOs to implement many agricultural production initiatives. However, most ministries lacked the staffing or resources for existing staff to reach out to smallholder farmers with the quality of information and frequency needed. The Mali MoA claimed a lack of transportation for the few extensionists that had not retired. Almost half of Ghanaian women farm, yet only 10% of agricultural extension agents are women. The Ghana Ministry of Food and Agriculture is concerned because many traditional cultures prohibit women from working closely with non-related men. This gender imbalance means that many women do not directly receive the training they may need to improve production. In Kenya, the extension system addresses commercial farmers at the cost of working with subsistence farmers. Ghanaian extension agents were tasked with collecting agricultural data for the ministry statistical data bases, which took time away from training farmers. In Rwanda there is one agriculture extension agronomist and one animal technician for about every 3,000 farm households. Farmers in extreme rural areas have virtually no contact with any agricultural extension services.

To stretch limited resources for smallholder farmers, the assessment teams did see ministries and NGOs using less-traditional methods to reach out to farmers. In Ghana, the Millennium Development Authority (MiDA) was funding NGOs to provide text-messaging services to advise farmers when to plant, fertilize, and harvest. Trade Net, a USAID-funded program, will use mobile phones and FM radio networks to help smallholder farmers access market data. In Kenya, agricultural extension agents have shifted from one-on-one education to establishing and working with FBOs. Planned call centers in Kenya will enable farmers to contact agricultural specialists for questions regarding common production concerns such as plant diseases.

7. Non-targeted interventions have minimal impact on increased production.

In Kenya, the AT members were told of agricultural production programs that distributed benefits in a random manner and therefore had little impact on production. In Rwanda the MoA distributed fertilizer to farmers but because many lacked knowledge about when and how to apply it, its benefits were not optimized, if not lost.

In Ghana, MiDA has recognized the need to target interventions and has this need at the center of their “Agricultural Transformation Project.” With MiDA funding, the International Center for Soil Fertility and NGOs are forming farmer group as a means of providing training and as well as for distributing “starter packs” of inputs and supplies to these trained farmers. The packs include fertilizers, seeds, agro-chemicals, face masks, boots, and hermetically sealed 50kg sacks for grain storage.

Strategic Procurement

1. The current food supply procured from farmers in the target group may meet only part of the total food requirements of school feeding programs.

Most smallholder farmers, especially those in the food insecure areas of the four countries, are not year-round surplus producers. Therefore, they are presently unable to meet the additional demand for food staples that might arise if schools were to buy all of their food from them alone. The benefits and costs of procuring commodities at various levels, whether national, district, or local, are not well understood in any of the countries.

2. Expansion of the current food basket for SF programs could provide greater opportunities for smallholder farmers.

The AT found that a nationally-set menu that includes flexibility in menu options would allow local officials to better procure commodities from local smallholder producers. Furthermore, determining the food basket/menu will affect the extent to which local, smallholder farmers are able to participate in the program. It is likely that in order to meet nutritional requirements, commodities will be required that are not always produced at the local level. Small farmers in southern Mali grew vegetables but it was not feasible to transport them to SF programs in the north. In contrast, Ghanaian farmers had many fresh fruits to sell but they were not part of the food basket as the GSFP’s goal was to serve a hot meal, without fresh fruits.

In Ghana, the government has set four menus based on recommended nutrition guidelines. The choices of four different menus with a variety of commodities allows for flexibility in procurement at the local level. The program in Kenya has a set menu in terms of kilograms of pulses and grains, with flexibility within these categories regarding which foods can be procured for the program. For example, a school can purchase maize, wheat, or millet to meet the grain requirement. For pulses any variety of lentils, beans or peas is permitted. While SF program menus in both countries allow for flexibility regarding staple commodities, they do not allow for horticultural products, which the AT often saw being grown for cash by local, smallholder farmers.

3. Currently, national guidelines regarding the purchase of locally produced food are not clearly communicated to implementers.

Both Ghana and Kenya have developed national guidelines to govern their SF programs, with each policy placing a different level of importance on procuring from local smallholder farmers. While both governments say they want schools to purchase local foods from smallholder farmers, these intentions are not clearly conveyed through policy and guidelines. Overall, Ghanaian and Kenyan officials concur that government policies could more strongly advocate procurement from smallholder farmers. The definition of local is also vaguely defined and to some means purchasing from a local market while to others it means purchasing from a local commercial farm. While Kenya, Ghana and Mali school feeding coordinators say they prefer that food be procured near the school, they concede that “within the country” is acceptable. In some cases, the policies that exist actually serve to limit purchases from smallholder farmers. In Kenya, there are stringent requirements for businesses providing the food which smallholders often do not meet. These requirements include having a trade license, a company registration certificate, three years minimum experience in food supply and distribution, a bank account, and permanent premises. As a result, most schools would be forced to procure food from medium-sized traders and not from local smallholder farmers.

In Ghana, district-level caterers can pocket any cost-savings that remain after the food has been purchased. This may motivate them to buy food that is the least expensive, regardless of source. The AT heard of instances where this system discouraged caterers from procuring from smallholder farmers since the imported commodities in the market are sometimes cheaper than those that are locally produced food.

4. Where national guidelines for procurement exist, they often do not address food safety and quality.

The established school feeding policies do not include clear directives about food safety and quality control at the school level. In addition, the governments generally provided no training to individuals at the school level on inspecting for and maintaining food safety and quality. (This conclusion was also discussed previously in the Institutional Policy section of this report.) In Ghana, the AT observed infested maize-meal in school storerooms. In Kenya, the AT spoke with teachers and cooks who reported that food safety and quality was ascertained by visually inspecting the deliveries for infestation or signs of poor quality.

5. The amount of storage available on farm and at the school affects procurement of commodities.

Without adequate storage space at the schools, schools can procure only a limited quantity of food at one time. The schools with WFP programs had adequate storage facilities with established guidelines and training about maintaining these facilities. Additionally, WFP monitored the facilities and enforced established guidelines, ensuring that the storage facilities

were properly maintained for the SF programs. Many of the schools with no WFP program generally had inadequate on-site storage for food and therefore, would not be able to procure large quantities of commodities at one time for their SF program. At the same time, it was common to hear farmers say they had no on-farm storage and usually sold their commodities for cash at harvest time. When farmers must sell immediately after harvest, but schools have limited storage as in Ghana, it hampers SF programs' ability to purchase directly from smallholder farmers.

6. Limited information about market prices hinders schools and farmers from knowing appropriate prices at which to buy and sell commodities.

While each country has some type of market information system to disseminate market prices, the level of development and accuracy of this information varies. The commodity prices were generally known at the local level, but often farmers did not know national prices for commodities. In addition, the countries generally have no system of grades and standards to determine the quality of domestically produced commodities.

There was also a lack of understanding among farmers on proper pricing for tenders released for SF programs. For example, in Kenya, the AT found that farmers would often price commodities higher than the local market price for the SF program tenders. Schools would have to conduct an informal price survey in the local market to determine if the prices were appropriate. When prices requested were too high, officials rejected these tenders and then reopened the process to obtain a fair bid. Without information about appropriate market prices and the tendering process, it was difficult for both farmers and schools to determine the proper prices to buy and sell commodities for the SF program.

III. RECOMMENDATIONS

Based on the findings and conclusions discussed, the following recommendations are made to the four countries assessed for this project, as well as to other countries considering establishing a LPSF program.

1. Formalize stakeholder linkages at each level of program responsibility.

- a. Create a platform that strengthens linkages between all relevant government ministries and stakeholders (including donor countries and NGOs) and allows them input into the LPSF program.
- b. Examine the relationships between and responsibilities of the various government units, specifically as these relate to coordination of school feeding and economic growth objectives.
- c. Foster cooperation between the ministries and stakeholders necessary to ensure program success.
- d. Explore the potential at the district level for various stakeholders to work together to identify potential sellers and link smallholder farmers and farmer groups to the LPSF purchase process.
- e. Focus on reaching multiple objectives. In addition to enhancing school enrollment, a LPSF program policy should include poverty eradication and food security objectives.
- f. Develop a strategy that involves the MoA, other ministries involved in agriculture and rural development, farmer associations, and local markets for progressive increases in agricultural productivity and improved access to food.
- g. Develop a strategic procurement process to link farmers and farmer associations with schools for the purpose of procuring locally produced foods and improving incomes of smallholder farmers, to the maximum extent possible.

2. In the absence of or in the early stages of a national SF program, these steps should be considered while developing foundation and policy documents:

- a. Define the policy and objectives – Objectives should define the use of school meals to effectively meet the educational (attendance/enrollment), nutritional, or development objectives of students and their community.
- b. Determine resource requirements – The policy should assess the cost to the national government and what realistic contribution local communities can afford to provide while still allowing for program growth at the community level. Determining resources should allow for phased-in increases, keeping in mind political considerations of government resources.
- c. Determine targeting – The availability of program resources should determine which communities and which grade levels to target first. Considerations should be made for both community and national acceptance of the program while seeking to meet the need of particular communities.
- d. Establish the menu, kilocalorie and nutritional guidelines – Nutritional targets cannot be determined at the local level alone. Guidelines regarding minimum requirements should

be developed in conjunction with nutritionists while keeping in mind local food tastes and cultural preferences. Menu guidelines for the SF programs, including room for variances and availability, should ensure that students are receiving balanced, nutritious meals. National governments should use priority program objectives to guide them in balancing the nutritional needs of children while choosing foodstuffs that can be purchased locally. Determining the food basket/menu and the nutritional content of the basket will affect the extent to which local, smallholder farmers are able to participate in the program. It is likely that nutritional requirements will require commodities that are not always produced at the local level.

- e. Determine procurement objectives and guidelines - With set regulations, the process for procuring food for SF programs should be transparent and allow equal competition and access for all farmers. If the objective of a government's LPSF program is increased income for smallholder farmers, within these guidelines should be defined policies on procuring food from local sources, in particular, smallholder farmers. Guidelines should also specify the definition of locally-produced food and the percentage of food for the school feeding program that should be procured from local farmers.
- f. Create monitoring and evaluation guidelines – Once objectives are defined, a framework of measurement should be created for monitoring the success of the school feeding program and local procurement processes.

3. Working closely with development partners, develop a pilot LPSF program that can be scaled-up. The program would include the following characteristics:

- a. Focuses on poverty eradication, food security, and school enrollment and attendance.
- b. Is administered at the national level by the most appropriate government ministry, thereby ensuring the coordinated participation of all stakeholders.
- c. Promotes increased food production by and increased incomes for local smallholder farmers, including women farmers.
- d. Procurement focuses on supplies from poor local farmers during good harvest years and is balanced by purchases from more distant areas with surplus production when local production is inadequate.
- e. Supports, and does not hurt, the development of local community markets.
- f. Is a sustainable procurement system, from season to season and year to year.
- g. Has strong community support from school officials, farmer associations, local leaders, parents, teachers, and others.
- h. Tracks benefits and sustainability of the program at all levels.
- i. Is strengthened by strong and effective monitoring and evaluation processes.

4. Develop a model and guidelines for local procurement for SF programs that addresses management at all levels from the national to the community level.

- a. Provide sound logistics and organizational arrangements to facilitate smooth implementation of the program. This includes disseminating information, offering training, establishing procurement guidelines, and efficiently managing the flow of funding from the national accounts to the procurement level.

- b. Focus on building needed management capacities (personnel, finance, procurement, headquarters, field resources, etc.) in local schools and farmer associations
- c. Collaborate with the Ministry of Health and WFP to set minimum kilocalorie requirements for meals and to create a food basket that meets nutritional guidelines and maximizes farmer participation while ensuring food quality and safety standards are met.
- d. Provide training and technical assistance for schools and cooks in food safety, handling, and quality management.
- e. Provide and enforce clear guidelines for on-site facilities such as school kitchens, storage, etc. that affect procurement, food safety, and food handling.
- f. Develop guidelines for SF programs that include provisions on food safety and quality, but that are not so stringent that they preclude procurement from smallholder farmers or other local sources.
- g. Provide training for farmers, farmer-based organizations, traders, head teachers and others who are involved in selling or purchasing of school foods.
- h. Evaluate the frequency in which funding is disbursed for the procurement of food. Consider the frequency and consistency in which funding is distributed to the individuals procuring food; these factors can affect pricing, availability of commodities and the ability to procure from smallholder farmers, if schools are forced to purchase on credit.
- i. Put in place appropriate policies and frameworks so that smallholder farmers have adequate and sustainable opportunities to market their produce locally.

5. Develop a monitoring and evaluation system that addresses food safety, food procurement, and program transparency.

- a. Include measures and indicators to ensure quality and food safety standards, to prevent fraud and corruption, and to verify that nutritious, high-quality meals are being served every day, in every school.
- b. Establish procurement policies that allow for the maximum participation of smallholder farmers, including women farmers.
- c. Include transparency measures to ensure that parents, head teachers, individual farmers, farmer organizations, agricultural extension agents, traders and processors, and government officials are aware of how the program is operating, including how staff is hired and how purchases are tendered.
- d. Include indicators that specifically measure the involvement of women and of gender issues in all components of a LPSF program.

6. Target capacity and policy in both production and procurement for LPSF.

- a. Address agricultural productivity and local procurement simultaneously when developing school feeding policies. WFP's 2009 *Home Grown School Feeding: A Framework to Link School Feeding with Local Agricultural Production* (HGSF) makes numerous references to supporting farmers in their efforts to increase local production. Without projects or collaboration with other partners to bolster the supply side of LPSF programs, those programs as implemented are local procurement programs, and not local production programs.

- b. MoAs should target their agriculture assistance schemes in districts where the government has LPSF to assist with production in marginally productive and non-productive lands.
- c. Educate local school administrators on how to procure from smallholder farmers. This can include information about market prices, food quality and seasonal availability of commodities
- d. Provide training to smallholder farmers, including women farmers, about planning agricultural production to meet school needs, including participating in their chosen procurement models.

7. Explore alternatives to increase the reach and effectiveness of extension systems.

- a. MoAs and NGOs need to collaborate to develop creative strategies to disseminate information.
- b. Traditional extension agents working under the MoA can be effective if they are provided with the resources needed to reach smallholder farmers. Promising ideas include extension call centers with reduced (affordable) telephone fares for the call-in number.
- c. Employ more women as agricultural extension agents to reach out to women farmers to provide gender-appropriate training in production, processing and marketing. Continue to form and support women's groups as a means for training and mutual assistance. Include gender-appropriate methodologies in the design and implementation of capacity-building programs.
- d. School gardens and youth clubs can be used to teach and demonstrate agricultural methods directly to farmers or passed on through students to their parents.
- e. Extension agents can reach far more people if they shift from teaching farmers directly to training FBOs, NGOs, input suppliers and others who can then pass on information to the producer. Extension agents can also fill an important role in organizing farmers in small groups to maximize savings and profits in buying and selling.
- f. Establish an integrated research system that addresses needs of smallholder as well as commercial farmers.
- g. Establish a system to effectively and efficiently disseminate research information to smallholder farmers on traditional crops and especially crops needed for the school feeding program.

8. Use a LPSF program as an incentive to increase production of pulses and other drought-resistant crops.

Incorporate pulses and drought-resistant crops better suited to the climate into the school feeding basket or menu. Maize and rice are growing in popularity throughout each of the countries assessed. Unfortunately, it is not always well-suited to the area where it is grown.

9. Develop stronger collaborations between ministries of agriculture, farmer-based organizations, agricultural researchers and donors.

- a. When working to increase agricultural production in food insecure areas, optimize resources by encouraging educators, researchers, policy makers, donors and farmers to collaborate so that inputs will be more likely to impact production.
- b. Train agricultural educators, either through the MoA or through NGOs to coordinate the various stakeholders implementing agricultural programs in their respective region.

10. Foster farmer-based organization collaboration for farm credit. During the assessment visits, team members heard many examples of how FBOs are working with donor organizations to build capacity to borrow money.

- a. Small farmer groups can work together to address credit access for specific crops. Farmers who work in small groups of 3-5 are more accountable to each other and are less likely to default on loans.
- b. Provide training to various stakeholders in the value chain, such as women processors.

11. Target assistance of production inputs to productive areas.

- a. Package basic inputs to enhance the likelihood of increased production. These resources may include fertilizers, agricultural chemicals, viable seeds, training, and infrastructure such as irrigation.
- b. Focus assistance in areas with good production potential to optimize inputs.

12. Evaluate the benefits and costs of procuring commodities at the national, district, or local level to determine which method best assists the country in meeting its national development and poverty reduction goals.

- a. Governments should understand the benefits of purchasing at various levels and scales to determine the best method of procurement and management of their school feeding programs.
- b. If governments chose to support school feeding programs through the national budget, they must conduct a cost-benefit analysis to determine at which level (national, district, sector, or village) it is most appropriate to transfer money to procure food. Several factors must be considered in this analysis including the cost to procure food, the benefits to local producers, availability of crops at certain times and in different regions, ability to transport crops and associated costs, the ability of officials to manage procurement and school feeding program at different levels, and cultural practices associated with managing these types of programs for children in the community. While large-scale bulk purchases might be the most economically efficient, they do not accrue development and income benefits to smallholder farmers.
- c. Consider transferring funding from the national government to a local community for purchasing commodities for a school feeding program. This transfer would place additional funds in the local area, providing an opportunity for schools to be a market in food insecure areas for local producers, thereby potentially increasing smallholder farmer incomes.

- d. Weigh the benefits and trade-offs to each method, keeping in mind the prioritized objectives when selecting the methods that best achieve program goals and objectives. Procuring at these different levels may allow for all the commodities for the school feeding program to be procured from local smallholder farmers within the country. While it may not be feasible to procure all commodities locally from smallholder farmers in food insecure areas, it may be possible to procure food from smallholder farmers in other areas of the country in order to meet the national demands of a school feeding program.

13. Establish a clear directive on purchasing food from smallholder farmers within school feeding program guidelines.

- a. Policymakers should define “local” as it is most feasible for the region, keeping in mind the goal of increasing the income of smallholder farmers
- b. Policies should define targets for the proportion of overall food to be from locally produced sources, but allow for the flexibility to procure non-locally produced foods when necessary.

14. Ensure that the school meal menu provides enough flexibility to allow schools to procure locally available food in their area.

- a. National policies should articulate the acceptability of purchasing outside the local area as nutritional needs of the children will need to be balanced with the objectives of improving the income of local farmers. It is likely that nutritional requirements will dictate that some foods be purchased from other areas of the country if they are not produced locally.
- b. Consider the benefits of establishing menus at the local level: to provide opportunity to directly reflect the production in the area close to the school, thereby allowing greater procurement ability from smallholder farmers; to allow the menu to best reflect specific local cultural practices.
- c. Nutritious crops (including fruits and vegetables) produced in surplus or for cash by local smallholders should be incorporated into the food basket whenever possible to facilitate their participation in the LPSF program.

15. Consider the availability of storage on-farm and at the school in designing the procurement policies for the school feeding program. On-farm storage also affects procurements strategies as without proper storage, farmers are forced to sell at harvest time and cannot sell evenly throughout the year to the schools. In this case, it would be difficult to procure food from smallholder farmers on a weekly basis throughout the year since food would only be available during harvests.

- a. Disburse funding for school feeding purchases to be available at harvest time.
- b. Construct necessary storage facilities at the schools.
- c. Procure school feeding staples at harvest when food is available and cheaper and store these commodities for use throughout the year, to the maximum extent possible.

- d. Pilot a village-level storage system using warehouse receipts for cereals and pulses. These warehouse receipt systems can assist farmers in storing their harvest for consolidation with other farmers for more power in negotiating sales prices.

IV. Appendixes

Acronyms

Mali Assessment Report

Ghana Assessment Report

Kenya Assessment Report

Rwanda Assessment Report

Acronyms used in this report.
 Also spelled-out on first use within document.

AT	Assessment team
FBO	Farmer based organizations
GSFP	Ghana School Feeding Program
HGSF	Home Grown School Feeding
LPSF	Locally Produced School Feeding
M&E	Monitoring and Evaluation
MiDA	Millennium Development Authority
MoA	Ministry (ies) of Agriculture
MoE	Ministry (ies) of Education
NGO	Non-Governmental Organization
SF	School Feeding
UN	United Nations
USDA	United States Department of Agriculture
WFP	World Food Programme