



Standard Project Report 2015

World Food Programme in Uganda, Republic of (UG)

Logistics Capacity Development: Post-Harvest Food Loss Reduction in Uganda through improved Storage and Handling at the start of the Supply Chain

Reporting period: 1 January - 31 December 2015

Project Information	
Project Number	200836
Project Category	Single Country Special Operation
Overall Planned Beneficiaries	N/A
Planned Beneficiaries in 2015	N/A
Total Beneficiaries in 2015	N/A

Key Project Dates	
Project Approval Date	June 05, 2015
Planned Start Date	May 17, 2015
Actual Start Date	May 17, 2015
Project End Date	May 16, 2016
Financial Closure Date	N/A

Approved budget in USD	
Food and Related Costs	N/A
Capacity Dev.t and Augmentation	5,006,703
Direct Support Costs	288,445
Cash-Based Transfers and Related Costs	N/A
Indirect Support Costs	370,660
Total	5,665,809

Commodities	Metric Tonnes
Planned Commodities in 2015	0
Actual Commodities 2015	0
Total Approved Commodities	N/A

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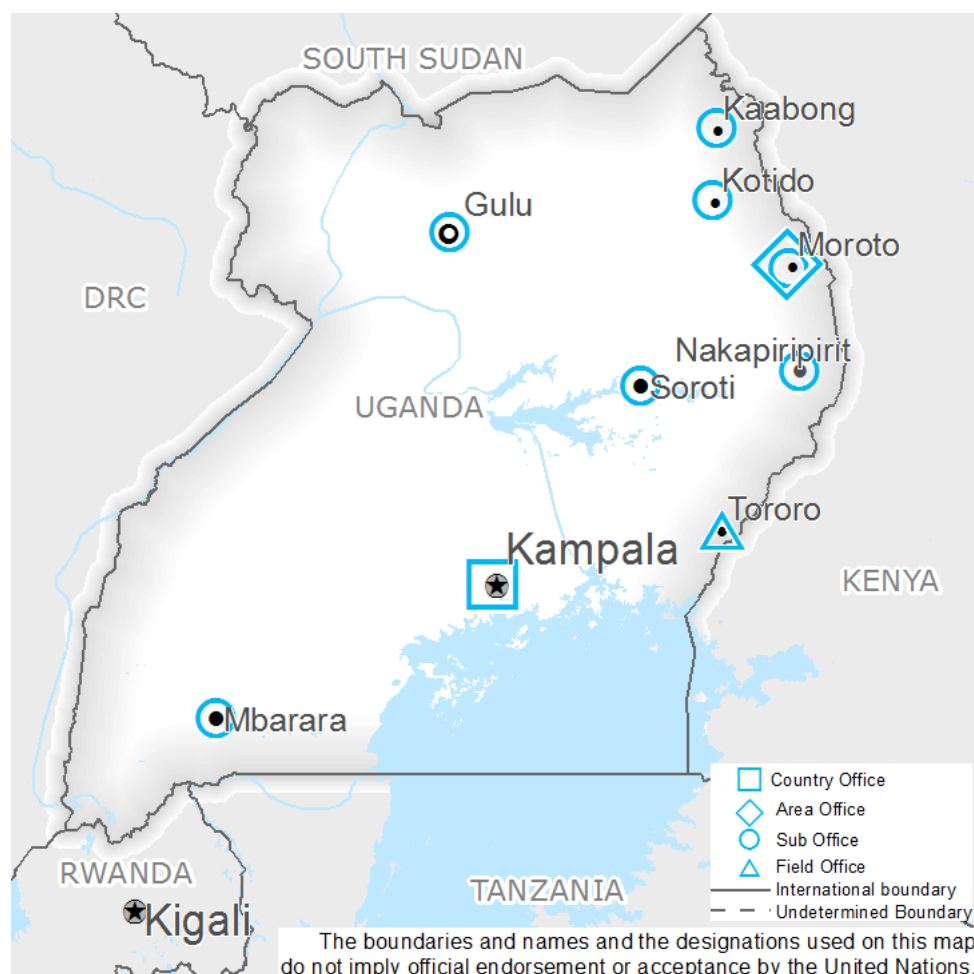
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COUNTRY OVERVIEW



Country Background

Uganda has a total population of 35 million (2014 Census) and a population growth rate of 3 percent per year. The country has made significant progress over the past two decades in terms of macro-economic growth and human development. According to the *Uganda Systematic Country Diagnostic - World Bank report - December 2015*, the proportion of poor people declined from 56.4 percent in 1993 to 19.7 percent in 2013. However, with a Gross National Income (GNI) per capita at USD 660, Uganda remains one of the poorest countries in the world.

The country has substantial natural resources, including fertile soils, regular rainfall, small deposits of copper, gold, and other minerals, and recently discovered oil. In spite of this, Uganda ranked 163 out of 187 countries on the *2015 UNDP Human Development Index report*.

Agriculture is the most important sector of the economy, employing 77 percent of the workforce (*Uganda Bureau of Statistics Report - 2005*). An estimated 90 percent of women in Uganda depend directly or indirectly on agriculture for livelihood. Although food availability is not a major problem, food access and utilization are inadequate in many locations. This inadequacy has been exacerbated by high food prices and unfavourable weather conditions in some parts of the country.

Uganda's north-eastern Karamoja region suffers from chronic food insecurity and vulnerability to hunger, as well as poor access to basic social services such as education and health. A combination of chronic underdevelopment and recurrent drought in Karamoja continues to undermine the capacity of households to meet their basic nutritional requirements. Karamoja has the highest levels of acute and chronic under-nutrition in the country, with wasting at 12.4 percent and stunting at 39.5 percent (*WFP Uganda Food Security and Nutrition Assessment - December*

2015).

By December 2015, Uganda hosted over 500,000 refugees who fled violence and unrest in the Democratic Republic of the Congo (DRC), Rwanda, South Sudan and other countries in the region. This number had risen from 405,000 at the end of 2014 and 230,000 in 2013.

WFP Uganda's interventions under Country Programme (CP) 108070 contributed to Millennium Development Goals 1, 2, 4 and 5. According to *the MDG Uganda 2015 report*, the country achieved 33 percent of the MDG targets, three times higher than the performance recorded in the MDG 2013 report. Particular progress was made on reducing the proportion of people whose income is less than one dollar a day; the proportion of people who suffer from hunger; the under-five mortality rate; and incidence of malaria and other major diseases. The country also made improvements in access to HIV treatment and global partnerships for development. While this is commendable, Goals 2 and 5 were not achieved nationally.

Summary Of WFP Assistance

WFP's interventions in Uganda focus on three priority areas: emergency humanitarian action; food and nutrition security; and agriculture and market support, which includes Purchase for Progress (P4P). These are implemented through a Protracted Relief and Recovery Operation (PRRO 200429) for emergency humanitarian action and a Country Programme (108070) for food and nutrition security and agriculture and market support. WFP also implemented a Special Operation (SO) (200836) aimed at reducing post-harvest losses in Uganda through a combination of post-harvest farmer training and new technology storage units.

All WFP programmes respond to the Millennium Development Goals and are consistent with the United Nations Development Assistance Framework for Uganda. The PRRO directly contributes to MDGs 1 and 4 while the Country Programme corresponds with MDGs 2 and 7. Furthermore, WFP programmes are aligned with and support the priorities and policies of the Government of Uganda.

The PRRO targets individuals which cannot meet their basic food and nutrition security needs. These include extremely vulnerable households in Karamoja, refugees, and severely and moderately malnourished individuals in Karamoja and among the refugee population. WFP's key activities under this programme include targeted food distribution and prevention and treatment of acute malnutrition.

The Country Programme targets two categories of beneficiaries. The first category assisted under the food and nutrition security priority area, consists of communities that have emerged from crises but are struggling to meet their food and nutrition needs and remain vulnerable to shocks. The beneficiaries comprise communities and households in Karamoja. Key programmatic activities include resilience-building, disaster risk reduction and mitigation, and initiatives aimed at addressing chronic hunger, including school meals and mother-and-child health and nutrition.

The second category consists of individuals which can meet their basic food and nutrition needs but require increased incomes to become fully food-secure. This targeted group consists of surplus-producing small-holder farmer groups, mainly in eastern, northern, western parts of the country with limited access to markets of quality grain through which they can improve their earned incomes. Activities under this component of the country programme include construction and rehabilitation of market infrastructure, training in post-harvest management and the purchase of small-holder farmers' produce by WFP.

The Special Operation (SO) (200836) was premised on the successful implementation of an earlier Special Operation (20067)¹ in 2014-15, in which smallholder farmers enjoyed significant improvements in household revenue as a result of training in post-harvest handling and storage and distribution of new hermetic storage and handling equipment. The expanded project targeted an increased number of small holder farmers with interventions at the household level. Participating farmers were trained in improved farm management practices and equipped with modern storage technologies to reduce post-harvest food losses.

Key achievements for the country office in 2015 included:

1) Under the PRRO, WFP's food assistance helped improve the food and nutrition security situation of refugees and extremely vulnerable households in Karamoja. Assessments reported improved indicators of food and nutrition security in the country. The country office supported the biggest refugee influx in the country with over 350,000 individuals provided with food assistance. The cash based transfer modality was expanded to new refugee settlements and the demand for the cash with the associated benefits of dietary diversity and stabilized food

consumption scores which attracted considerable interest from the beneficiaries. The country office participated in capacity development training in emergency preparedness for staff and government counterparts.

2) WFP activities under the Country Programme supported more than half the population in Karamoja with food assistance support through school meals programme (SMP), mother child and health nutrition interventions (MCHN) and public works programme (PWP). The SMP supported government efforts to increase access to education in Karamoja. Enrolment and retention rates in the WFP-supported schools improved in 2015. This was attributed to the regular provision of school meals that encouraged the children to remain in school, at a time when there was increased food insecurity in the region. The MCHN programme helped to improve deliveries across the health centres in Karamoja. Under public works programme, WFP food assistance support enabled participating households to create community assets including woodlots, water catchments, dams and irrigation ponds.

3) Under AMS/P4P, there was stimulation of local markets through WFP food procurement from farmer organizations. Of the overall amount of commodities procured for country office operations in 2015, 14 percent was sourced from the farmer organizations. This was a result of enhanced training that resulted in improved quality and commitment to contracts.

4) WFP's special operation (SO) helped to reduce post-harvest losses in Uganda. The trainings combined with the provision of new storage and handling equipment resulted in tangible benefits. Based on the end of project report for the SO, almost all the smallholder farmers participating in the SO recorded loss results below 5 percent after 90 days of storage compared to 40 percent loss reported using traditional storage methods. Another highlight of the report was that an average farmer more than doubled their household income if they were trading in maize or sorghum, with the increase reaching almost 90 percent for those dealing in beans.

5) Under partnerships, the country office implemented activities in close alignment with government and other UN agencies operating in the country. There was strong engagement with the development of National Development Plan II and UNDAF; active participation at the UN Country Team; strategic partnership with the government and partners and increased engagement with donors. There was strong collaboration between WFP and the Ministry of the Presidency with respect to the Operation Wealth Creation project.

6) WFP, UNICEF, and FAO developed a joint resilience strategy focussing on food and nutrition security for the Karamoja region. This strategy will improve coordination and the linking of interventions in order to strengthen household resilience to food and nutrition-related shocks. WFP also co-chaired the Karamoja Development Partners Group helping to improve coordination among development partners.

7) There was increased visibility of WFP beyond emergency assistance interventions, especially in the areas to address logistical constraints to agriculture, food losses and market stimulation.

Two key challenges were noted:

- 1) Given the refugee influx and other needs in the country office funding remained a challenge; and
- 2) There was lack of capacity for government to coordinate and lead in numerous areas particularly at the district level in Karamoja.

Beneficiaries	Male	Female	Total
Children (under 5 years)	92,420	103,188	195,608
Children (5-18 years)	216,732	207,055	423,787
Adults (18 years plus)	102,643	157,165	259,808
Total number of beneficiaries in 2015	411,795	467,408	879,203

Distribution (mt)						
Project Type	Cereals	Oil	Pulses	Mix	Other	Total
Country Programme	5,925	183	267	1,166	59	7,600
Single Country PRRO	44,701	3,231	8,810	6,253	83	63,078
Total Food Distributed in 2015	50,625	3,413	9,077	7,419	143	70,678

OPERATIONAL SPR

Operational Objectives and Relevance

The overall goal of this special operation (SO) was to support the Government of Uganda and WFP globally to address two of the five objectives of the United Nations Secretary General's Zero Hunger Challenge, namely: 1) increase in smallholder productivity and income; and 2) zero loss or waste of food through implementation of post-harvest loss reduction initiatives. Aligned with WFP's Strategic Objective 3, *reduce risk and enable people, communities and countries to meet their own food and nutrition needs*; the project aimed at: i) improving the household income of smallholder farmers; ii) improving the nutrition of smallholder farming families; iii) increasing food security/availability of food for family and community consumption; and iv) developing a clear sustainability strategy by encouraging strong private sector engagement.

The special operation, launched in May 2015, was built on the successful implementation of the preceding special operation (SO 200671), in which participating smallholder farmers enjoyed significant improvements in household revenue as a result of training in post-harvest handling and storage, and distribution of new hermetic storage and handling equipment. The expanded project targeted an increased number of smallholder farmers with interventions at the household level. The households represent the start of the supply chain, where the majority of post-harvest food losses occur. Participating farmers were trained in improved farm management practices and equipped with modern storage technologies to reduce post-harvest food losses. The project, which complemented the country programme's (CP 108070) objectives, set out to improve the household food security and income-generating potential of the participating smallholder farmers.

WFP's support to smallholder farmers in Uganda to reduce post-harvest losses is a major contribution in a country that is largely dependent on agriculture as the main driver of economic growth, food security, income enhancement and employment. The sector employs 77 percent of the population (Uganda Bureau of Statistics, 2005). According to Ministry of Agriculture, Animal Industry and Fisheries reports, between 25 to 35 percent of the crop yields are lost through inefficient post-harvest handling.

Results

Beneficiaries, Targeting and Distribution

Targeting of smallholder farmers in this special operation was based on their ability to produce a marketable surplus, membership in a farmer's group or association, and previous participation in WFP's agriculture market support/Purchase for Progress (P4P) activities. Selected smallholder farmers were located in seven agricultural greenbelts in the northern, eastern and western regions of the country.

The project was premised on the fact that improving post-harvest storage practices and technologies was a cost-effective and resource-efficient method of improving food availability, access and utilization even in regions that had surplus food production. Scaling up the dissemination of improved farm management practices and proven storage technologies was viewed as having the potential of dramatically reducing post-harvest losses, which would help farmers overcome the pervasive cycle of poverty brought on by such losses at the farm-level.

Key activities of the operation were designed to address such concerns and included training smallholder farmers in improved post-harvest management practices and promoting the use of modern household storage and handling technology. The operation targeted over 40,000 smallholder farmers, up from 16,700 supported under the preceding SO. WFP's targeting ensured that at least 50 percent of participating smallholders farmers would be women.

Outputs

In 2015, 98 percent of the targeted farmers were trained in improved post-harvest storage and management practices. The training was conducted in two phases. Phase 1 consisted of community level trainings conducted by NGO partners. Farmers were gathered into groups of 50 and trained in improved post-harvest handling methods and better ways of harvesting, threshing, drying, and storing crops. The trainings were conducted in the local language using training manuals and powerpoint presentations. Phase 2 involved the delivery of refresher trainings targeting farmers who had received storage and handling equipment, to ensure that they applied the skills learnt

during the trainings and used the new equipment correctly.

By December 2015, over half of the farmers trained were women.

The project linked the smallholder farmers to the private sector, including financial institutions, equipment manufacturers and distributors, to create commercial networks for farmers' outreach activities and marketing. The majority of the farmers belonged to village savings associations that helped them use their savings and borrowings to contribute to the purchase of the WFP-subsidized equipment. The village associations in particular provided an opportunity for women to access easy loans to purchase equipment, as the majority of the members were women. At least 90 percent of the equipment planned for distribution was distributed to the smallholder farmers.

With the acquired training and provision of equipment, participating households are expected to contribute to a higher volume of quality grain traded through networks of satellite collection points, warehouses, and structured trading platforms already supported by WFP.

Output	Unit	Planned	Actual	% Actual vs. Planned
SO3: Special Operation (Logistics)				
Number of equipment distributed	unit	95,200	85,680	90.0
Number of farmers trained in post- harvest storage, management practices etc.	farmer	40,590	39,624	97.6

Outcomes

Measurable data on gains in grain quantity and quality, socio-economic benefits at household level attributed to improved post-harvest handling knowledge and improved storage and drying equipment will be available in early 2016. Project outcome monitoring will involve assessing the potential reduction in post-harvest losses of stored grains and evaluating the performance and efficacy of improved storage equipment, measuring the rates of grain infestation, contamination, deterioration and moisture levels at 30 and 90 days' mark after the commencement of storage (compared against traditional storage practices and equipment). Given that this special operation's approach builds on the successful implementation of the preceding special operation, there is a strong likelihood that the project will have tangible benefits including minimal quality losses, reduced quantity losses and increased farmer incomes.

Based on the preceeding SO 200671 project completion report, improved storage equipment provided farmers with immediate preferential storage options that safely protected grain from pests, insects, mould and moisture. Not only did the equipment help in preventing food losses, it helped preserve the quality and economic value of crops for sale. In addition, health gains were made through the prevention of contamination from aflatoxin/mould and soil contamination. Of the 1,400 farming households surveyed, almost all the farmers (99 percent) recorded loss results of below five percent after 90 days of storage. The report also indicated that by maintaining good quality produce and selling at a time when crops were in demand in the market, an average farmer more than doubled their household income if they were trading in maize or sorghum, with the increase reaching almost 90 percent for those selling beans.

In 2015, WFP purchased over 5,000 mt of good quality maize from smallholder farmers' groups, the majority of whom were beneficiaries under the preceding SO 200671. Given the increased number of farmers under this current special operation, WFP projects that a higher volume of good quality maize will be available for purchase in 2016.

Sustainability, Capacity Development and Handover

This special operation was intended to stimulate private sector engagement and to work with private sector partners to eventually take over the training and distribution of equipment, first on a subsidized basis, and eventually on a full-cost recovery basis once the economic benefits of the equipment have been demonstrated at scale. Under this SO, farmers paid 50 percent of the cost of subsidized drying and storage equipment compared to 30 percent paid under SO 200671, which is significant progress towards enhanced sustainability. While NGO partners trained the farmers, private sector distributors took equipment orders, collected deposits from them and distributed the storage equipment through village agents after the equipment was fully paid. Many of these private sector distributors,

located in major towns, had previous experience distributing and selling agricultural inputs through village agent networks. The village agents have a good outreach as they are member of the farming communities.

As part of their business interests, private sector distributors expanded the list of agricultural inputs they offered by including the new storage equipment. WFP linked the distributors with post-harvest storage equipment manufacturers and the financial institutions supporting the smallholder farmers. These stakeholders will eventually manage the trainings and sale of equipment independently of WFP and donor support. It is expected that the sustainability of the project will be achieved through the farmers and private sector recognising the potential markets that will continue to develop independently of WFP's engagement.

Beyond the project, WFP mobilised additional resources and established a global post-harvest knowledge management centre with the head office housed in WFP's country office in Uganda. In 2015, the office provided technical support to Rwanda and Sudan in the design of their pilot projects. In addition, the Sudan office sent in artisans who were trained on the manufacturing of metal silos, while Rwanda ordered and received sample equipment for testing and adapting. At least 15 countries have already expressed interest in the project.

Management

Partnerships

In 2015, WFP signed a memorandum of understanding with the Ministry of the Presidency to formalize a partnership called "Operation Wealth Creation" as part of strengthening the agriculture and market support interventions. This partnership is expected to enhance collaboration with the government and expand potential funding opportunities. At the district and lower levels, WFP worked directly with technical staff from the Ministry of Agriculture, Animal Industry and Fisheries in implementation of the activities, including during training, in addition to the oversight provided by senior management of the ministry at the national level.

WFP engaged several private sector distributors and local NGOs in the distribution of storage equipment. They included: AKORION (Busoga region); Venturesome (Teso region); Grand Supplies and Agrinet (Acholi region); Joseph Initiative (Western region); and Native Engineering (South Western region). In addition to the private sector distributors, USAID and the Massachusetts Institute of Technology (MIT) were involved in the design of the monitoring and evaluation framework. Government ministries and NGO cooperating partners - Soroti Rural Development Agency (SORUDA), Office of Relief and Development Support (ORDS), Cooperazione e Sviluppo (CESVI), Agency for Technical Cooperation and Development (ACTED), Food for the Hungry International (FHI), SNV Netherlands Development Organisation (SNV), and Samaritan's Purse (SP) implemented the related Purchase for Progress (P4P) activities.

Given the interest expressed by other countries in the region in setting up post-harvest loss reduction projects using a similar approach, WFP set up a knowledge and operations centre (KOC) on post - harvest food loss reduction in Uganda to provide support for other country offices and governments.

Partnership	NGO		Red Cross and Red Crescent Movement	UN/IO
	National	International		
Total	2	5		

Lessons Learned

Based on the empirical data gathered in WFP's Action Research Trials in 2013 and 2014, reducing grain losses at household level proved to increase income of smallholder farmers' households by as much as 100 percent. Farmers not only had additional surpluses to sell, but they had far more control over when to sell their produce. Through this special operation, WFP built upon the accomplishments of the trials and those of the preceding SO 200671, where almost 17,000 farming households enjoyed remarkable gains in household finances in 2014 and early 2015. This current SO expanded the post-harvest loss reduction activities in the country to include additional farming families.

During the implementation of SO 200671, WFP made a deliberate effort to address gender inequalities by including women in all aspects of the project implementation. Concrete benefits for women farmers included increased security due to the improved storage systems, reduced labour, and increased economic returns. In the design of SO

200836, WFP required that partners reach a minimum of 50 percent women beneficiaries.

The project experienced challenges that were resolved during the project cycle. These provided crucial learning opportunities to further improve programme delivery. For example, it was found that there is need for more structured follow-up with farmers to ensure that those who ordered and made deposits make final payments and pick up the equipment. In addition, the project recognized the need to digitize all beneficiary data, training progress, and equipment ordering and distribution processes.

Based on the success of SO 200671 and the success achieved so far with SO 200836, it is clear that this model of post-harvest loss reduction related interventions can be further expanded in Uganda and replicated across the broader sub-saharan region.