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


World Food Programme in Uganda, Republic of (UG)
Table Of Contents

Country Context and WFP Objectives

Country Context
Response of the Government and Strategic Coordination
Summary of WFP Operational Objectives

Country Resources and Results

Resources for Results
Achievements at Country Level
Supply Chain
Implementation of Evaluation Recommendations and Lessons Learned

Project Objectives and Results

Project Objectives
Project Activities
Operational Partnerships
Results/Outcomes

Figures and Indicators

Data Notes
Country Context and WFP Objectives

Country Context

Uganda has a total population of 35 million (2014 Census) and a population growth rate of 3 percent per year. The country has made progress over the past two decades in terms of macro-economic growth and human development. However, with a Gross National Income (GNI) per capita at USD 1,623 and human development index of 0.483 [1], the country remains one of the poorest countries in the world. Uganda ranks 122nd on the Gender Inequality Index (GII), with Human Development Index for women noticeably lower than for men (0.452 and 0.510 respectively) (UNDP HDR 2014). The implementation of the Universal Primary Education programme since 1997 has improved human development indicators, increasing enrollment from 2.5 million to 8.7 million in 2014. Uganda is close to achieving parity in enrollment rates between girls and boys at the national level. To achieve further growth, it is essential that the country addresses key areas of vulnerability. At least 6.7 million people remain poor or vulnerable to poverty, and only 4.5 percent of the population have access to social security in a country where the natural environment, human capital, infrastructure, public services and markets vary widely between regions.

Agriculture, a key sector of the economy, employs 77 percent of the labour force and accounts for 25 percent of the GDP. Smallholders – food and cash crops, horticulture, fishing and livestock – account for an estimated 95 percent of farmers and 75 percent of agricultural produce [2]. These smallholder farmers underperform significantly as a result of poorly integrated markets, limited access to credit, uncertain land tenure and low levels of technology. Poor market information and the inability of primary producers to meet regional and international food quality standards also limit the sector's contribution to exports.

While women make up 77 percent of total farmers, less than 20 percent of women farmers control outputs from their efforts and only 27 percent of registered land is owned by women. According to a pilot study by International Food
Policy Research Institute (IFPRI) and USAID in 2011, the domains that contribute most to women's disempowerment are time burden (26.3 percent)—where only 55.7 percent of women in Uganda have manageable workloads—and lack of control over resources (23.1 percent) (IFPRI/USAID Women's Empowerment in Agriculture Index 2011). The Government of Uganda has committed to the promotion of gender equality in the National Gender Policy in 1997, and its revision in 2007, and the Uganda Gender Policy is an integral part of the national development process. However, cultural factors and harmful traditional practices -- such as early marriage which contributes to high maternal mortality -- exacerbate gender inequality.

In Uganda, post-harvest losses have been estimated to reach 40 percent in some sectors [3]. Because post-harvest handling techniques and storage facilities are inadequate, surpluses tend to be sold after the harvest when prices are normally low due to market supply. The loss of potential income contributes to food insecurity and undernutrition among smallholder farming families, especially during lean seasons.

In Karamoja region – a geographic focus of WFP’s activities in the country – the mainly agro-pastoralist population is vulnerable to erratic dry spells, flooding and food price rises. Education and undernutrition indicators have stagnated in recent years. In Karamoja, WFP supports the government's Northern Uganda Social Action Fund (NUSAF II) through asset creation programmes, the Ministry of Health's nutrition programmes through community-based supplementary feeding and mother and child health and nutrition activities, and the Ministry of Education through school feeding.

Studies conducted by WFP in 2016 reported increasing rainfall and variability across Karamoja region. Average monthly rainfall in Karamoja has increased over the last 35 years. This increase in variability will likely perpetuate the historic trend of unpredictable and unreliable rain, leading to an increase in the frequency of periods of low/no rainfall and heavy rainfall events. With low efforts in Climate Change Adaptation (CCA) in the region, increased rainfall variability will have a detrimental impact upon agricultural production, exacerbating the already elevated levels of food insecurity in the region. There is evidence of an emerging late rainfall phase in Karamoja as a result of increased rainfall during September, October and November. This extension of rainfall into the latter part of the year has the potential to lengthen the growing season in Karamoja, which could be beneficial for agricultural production in the region, if capitalized upon. Average monthly temperatures in Karamoja have increased over the last 35 years. Rising temperatures will impact households directly through the increased frequency, intensity and duration of heat waves and reduced water availability. Rising temperatures will also detrimentally impact agricultural and livestock production in the region, exacerbating food insecurity.

In 2016, Uganda experienced an increased inflow of refugees fleeing violence and unrest in Southern Sudan, Democratic Republic of Congo (DRC), and other countries in the region. The country now hosts over 800,000 refugees in ten refugee settlements in West Nile and South Western Uganda with more than 489,000 people having arrived in 2016 alone. High levels of anaemia among children have been reported across the refugee settlements. The rates are significantly higher than 40 percent. The food consumption scores indicate that the majority of the refugees are within the “acceptable” ranges, however, the household dietary diversity scores shows that majority of the refugees are within the “medium” category. Due to resource constraints refugees have been on reduced food assistance since August 2016.

Deliberate efforts have been made to address challenges associated with Water, Sanitation and Hygiene (WASH) indicators holistically (unimproved sanitary environment, inadequate hygiene practices and unsafe and inadequate drinking water). Majority of the refugees in the settlements continue receiving less than 20 litres of water per person per day and households depend on shared, communal or public latrines. A significant number of refugees' children were reported to have suffered from diarrhoea, also increased morbidity on malaria and respiratory tract infections were reported in the health information system reports.

The joint WFP-Government of Uganda-UNICEF-UNHCR Food Security and Nutrition Assessment of December 2016 reported that the public health and nutrition situation in refugee settlements in Uganda mirrors two different levels of malnutrition between West Nile and South West settlements. While the nutritional status in South West settlements progressively stabilise, the West Nile side have either medium or high prevalence of malnutrition.


Response of the Government and Strategic Coordination

In 2016, the government (National Planning Authority) requested WFP to support the 2030 agenda and the implementation of Sustainable Development Goals, especially SDG 2, on achieving zero hunger; and SDG 17, on
partnering to support implementation of the SDGs. To implement the agenda 2030, WFP Uganda supported the National Planning Authority by engaging Makerere University's Economic Policy Research Institute to review SDG 2 with the following objectives: review the situation of food and nutritional security within the targets of SDGs and national food and nutrition plans; assess the progress made by policies and programmes aimed at improving food security and nutrition for special categories such as women, men, girls and boys, across the different socio-economic groups, and between urban and rural populations; identify gaps in the responses to food security and nutrition needs, the available resources and institutional capacity to achieve SDG 2 targets by 2030; and identify opportunities and prioritize actions that will be required to meet response gaps and accelerate progress toward SDG 2 targets, and provide an overview of how these actions may be implemented and how they could be funded. The consultative process is an on-going effort. The findings of this report will provide input to the development of WFP Uganda's second Country Strategic Plan (2018-2022).

Given the refugee influx from Southern Sudan, the government opened three new settlements: Pagirinya, Bidibidi and Pagirinya, in West Nile, to settle South Sudanese refugees. During the relocation of the refugees to the new site, WFP provided cooked meals for the first three days and dry family rations after the refugees were resettled. The government allocated land and provided other support in collaboration with UNHCR. Continued support to refugees is WFP's response to government through the Office of the Prime Minister (OPM) and the Department of Refugees and Refugee Protection working closely with UNHCR. OPM developed and implemented a refugee settlement transformative agenda (RSTA) to which WFP's operations were closely aligned to. The development and design of the WFP/UNHCR joint livelihood project was informed by the RSTA. The country office also supported OPM in its leadership role for emergency preparedness and response, and provided food assistance to over 800,000 refugees settled in the country in 2016.

In 2016, WFP joined UNHCR on a high-level donor mission, comprised of representatives from Geneva, donor capitals (UK, USA, Japan, Finland, Sweden, Norway, Ireland) and Kampala to four refugee settlements. Issues raised included: refugees' access to markets, agriculture value chains, joint planning and programming of the Refugee and Host Population Empowerment (ReHoPE) strategy. The donors commended the government's progressive asylum policies and the potential this creates for integrating development assistance with humanitarian response.

Government requested WFP's support through institutions like the National Development Plan, Karamoja Integrated Development Programme or United Nations Development Framework. For example, building resilience in Karamoja required a common agenda and an integrated and coordinated approach by key stakeholders. Therefore, WFP worked with the government, UNICEF and FAO to develop a joint strategy to enhance resilience to shocks through programmes implemented by each of the three agencies and the government. The government requested WFP to support the establishment of a single beneficiary registry for Karamoja and northern Uganda with the objective of having more effective and accountable programmes. It is expected that the Karamoja single registry will be finalised in 2017, while the northern Uganda single registry will be finalised in 2017.

WFP Uganda continues to proactively engage in planning meetings and discussions on disaster management and response, and to respond to requests to support the institutional framework for disaster risk management in the country. WFP established working relations with the National Emergency Coordination Centre and building resource and response capacities through district-level disaster management committees. WFP worked closely with the government on the Northern Uganda Social Action Fund (NUSAF) at both national and local levels to enhance livelihood and income support for the people in Karamoja. Local government officials were actively involved in the planning and monitoring of the programme and WFP was able to transfer knowledge and build their capacity in programme planning and management. The mother and child health and nutrition (MCHN) programme was implemented through the government health service delivery system, with government health centres as implementers of the programme.

The country office held a partnership consultation meeting in Karamoja, which was attended by representatives of seven district local governments, Government's Karamoja Integrated Development Programme (KIDP) and non-governmental organization partners. Recommendations from the meeting focused on improving coordination, communication, and engagement with local government stakeholders.

**Summary of WFP Operational Objectives**

WFP Uganda's interventions in 2016 supported government plans to shift from emergency responses to long-term investments to address the causes of poverty and vulnerability. The interventions aimed at resilience-building by supporting predictable safety nets, nutrition prevention and capacity development for the government with a view to deliver nutrition, health and education services in the country.
In the refugee context, food assistance (food and cash-based transfer modalities) enhanced nutritional support and remained necessary in the short and medium term. WFP has continued to participate in joint activities with UNHCR and the Office of the Prime Minister (OPM) to increase refugee self-reliance through support for agricultural livelihoods.

WFP’s interventions in Uganda were implemented through a three-year Protracted Relief and Recovery Operation (PRRO 200852) (2016—2018), and a four-year Country Programme (CP 200894) (2016 - 2020). WFP Uganda also implemented IR-EMOP (201010) and a Special Operation (SO) (200836) that were later integrated into PRRO 200852 and CP 200894 activities, respectively.

**Protracted Relief and Recovery Operation: PRRO 200852 (2016-2018), approved budget USD 290 million**

Programme activities were implemented to assist: i) refugees and vulnerable people have access to food to meet their immediate needs and enable participation in programmes to increase their self-reliance; and ii) government and vulnerable communities in Karamoja have reliable safety-net systems that increase resilience to shocks and improve human development trends. The food assistance for asset (FFA) activities are seasonal in nature and are part of the NUSAF II public works.

Activities covered three programming components that addressed a combination of refugee influx and a protracted refugee crisis in Uganda; resilience-focused programming for food-insecure households in non-refugee areas, and strengthening of the government's own emergency response capacity.

**Immediate Response Emergency Operation (IR-EMOP) 201010, approved budget USD 430,814**

Food assistance through this IR-EMOP was needed to position essential commodities for hot meals for 30,000 people for a 30-day period. OPM and UNHCR planned to move refugees from reception centres to transit centres or directly to settlements as fast as possible but they faced resource constraints to transport them in a short time. So the IR-EMOP was required to immediately purchase and position hot meal commodities within 7 – 10 days to prevent critical breaks. The duration of assistance was planned from July 22 – October 22, 2016. This operation was integrated into PRRO 200852.

**Country Programme: 200894 (2016 – 2020), approved budget USD 103 million**

The activities were implemented in collaboration with the government's health, nutrition and education systems to: i) prevent further stunting and micronutrient deficiencies among children by targeting food assistance to mothers and children in the first 1,000 days of life; ii) provide treatment for individuals with moderate acute malnutrition; and iii) provide school meals to increase enrolment and attendance.

Through the agriculture and market support component, WFP supported small-scale farmers in all regions of Uganda to reduce post-harvest losses and improve incomes, leveraging infrastructure and skills previously developed to enhance productivity, quality and market access. The project also trained smallholder farmers in improved farm management practices and equipped them with modern (hermetic) storage equipment to reduce post-harvest losses.

The activities of the country programme complemented the PRRO activities with a focus on a systems-strengthening approach under three components: i) agriculture and market support; ii) nutrition; and iii) home grown school feeding. The systems-strengthening approach encompasses policy, governance and the transfer of capacities to local governments for the management of the nutrition and school feeding safety nets especially in Karamoja where the nutrition and education indicators are very low compared to the rest of the country. The country office works with district governments to integrate WFP's activities into their development plans.

In 2016, the country office signed a memorandum of understanding (MOU) with the government of Uganda (Office of the Prime Minister) to support the home grown school feeding programme in Karamoja sub region. The government contributes with grains (maize meal) produced from the prison farm in Namalu-Karamoja, while WFP provides technical assistance in storage management, handling and distribution of the commodity across the schools in Karamoja. The Agriculture and Market Support activity under the CP was also introduced in Karamoja in 2016 and school gardens are one of the planned activities.

**Logistics Capacity Development: Post-Harvest Food Loss Reduction in Uganda through improved Storage and Handling at the start of the Supply Chain SO 200836 (17 May 2015 to 16 May 2016), approved budget USD 5.6 million**

The overall goal of this special operation 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.
**Country Resources and Results**

**Resources for Results**

Funding received in 2016 dramatically increased compared to previous years, mainly due to the increasing needs for the refugee operation. The mass influx of refugees from South Sudan into Uganda put enormous pressure on WFP’s pipeline. The budget for PRRO 200852 was increased twice in 2016. Monthly requirements more than doubled by the end of the year from USD 5 million in January to more than USD 13 million by December.

Donors were regularly informed about the critical funding situation of the refugee operation even before the influx began in July 2016. WFP and UNHCR launched urgent appeals for resources at the local level in August and October 2016. In December 2016, an appeal letter signed by the UNHCR Commissioner and WFP Executive Director was sent out to donor capitals.

Despite strong support from donors, the refugee operation faced significant funding constraints. The country office responded by prioritizing new arrivals, which necessitated ration cuts to refugees who had arrived prior to July 2015 (with the exception of the extremely vulnerable households). These ration cuts were effective August 2016 and remained in place through the remainder of the year.

WFP expanded cash-based transfers to refugees, based on evidence indicating that cash transfers are cost-efficient and cost-effective compared to in-kind food, and where markets are functioning, allows people to choose what they eat and from a variety of fresh foods.

In Karamoja, asset creation and complementary activities (funded by a single donor, UK DFID) were implemented in only four of seven planned districts, due to insufficient funding. WFP may use multilateral funds to continue this program until the end of 2017, but barring a revival of donor interest, it is unlikely to continue beyond that.

USAID and DFID also provided funds for WFP to model a social protection single registry system in Moroto, Karamoja. With this system, WFP aimed to strengthen the quality of planning, delivery, and reporting for all food assistance resources going into Karamoja, with plans in 2017 to include programme information from other large-scale activities in Karamoja, contributing to coordination and transparency, and efficient use of resources in the region.

WFP Uganda purchased most of the grains and pulses that were required for the refugee and Karamoja operations locally from the Uganda market. WFP provided technical support to the government and smallholder farmers to produce quality grain and bought it for operations in Uganda and neighbouring countries, reducing delivery lead times and costs.

WFP Uganda supported the storage and movement of food and non-food items into South Sudan by road and air. The country office has a 52,000 mt capacity warehouse in Tororo town, which supports regional operations including advanced pre-positioning of food and non-food items for WFP and partners, including UN agencies and NGOs operating in South Sudan. Furthermore, WFP stationed an Ilyushin-76 plane at Entebbe Airport to conduct airdrops into remote locations in South Sudan. Two additional planes are expected to start South Sudan air operations out of Entebbe and Gulu.

**Achievements at Country Level**

Under the PRRO, WFP’s food assistance helped improve the food and nutrition security of refugees and targeted households in Karamoja.

The country office responded to a sizeable refugee influx from South Sudan, providing more than 800,000 individuals with food assistance during the year. WFP’s use of cash-based transfers more than doubled during the year, improving dietary diversity in the refugee settlements. Refugees could choose between in-kind or cash-based as one of the two food assistance modalities. Cash-based transfers gained popularity among the refugees in most of the settlements in 2016. Emergency preparedness activities for staff and government counterparts were implemented, which enhanced response time to the refugee emergency.

In Karamoja, WFP provided technical support, using WFP’s system SCOPE (beneficiary and transfer management platform), to the government to model a social protection single registry, coordinating with the Office of the Prime Minister (OPM) and the Ministry of Gender, Labor and Social Development. By the end of the year, more than 116,000 individuals in Moroto district had been registered into the system. The plan is to register all households in Karamoja into the system by mid-2017.
Cash-based transfers and in-kind food were provided to targeted households during extended lean periods through asset creation activities. A number of assets including agricultural crops for cash and food were supported at the household and community level, for example bee keeping and a number of horticultural crops. In collaboration with UNICEF, nutrition sensitization was introduced into these activities. Community-based supplementary feeding treated acutely malnourished children, and pregnant and nursing mothers. The school meals programme supported government efforts to increase access to education in Karamoja.

In priority districts across the country, WFP doubled the number of farmers reached by increasing geographic coverage, and strengthened relationships between farmers and private sector players for inputs, credit and air-tight household storage items. The Ministry of Agriculture has expressed interest in establishing a national post-harvest loss prevention programme, with support from WFP.

### Annual Country Beneficiaries

<table>
<thead>
<tr>
<th>Beneficiaries</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children (under 5 years)</td>
<td>161,307</td>
<td>189,922</td>
<td>351,229</td>
</tr>
<tr>
<td>Children (5-18 years)</td>
<td>255,841</td>
<td>274,697</td>
<td>530,538</td>
</tr>
<tr>
<td>Adults (18 years plus)</td>
<td>200,507</td>
<td>332,542</td>
<td>533,049</td>
</tr>
<tr>
<td>Total number of beneficiaries in 2016</td>
<td>617,655</td>
<td>797,161</td>
<td>1,414,816</td>
</tr>
</tbody>
</table>

![Country Beneficiaries by Gender and Age](attachment:image-url)
Annual Food Distribution in Country (mt)

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Cereals</th>
<th>Oil</th>
<th>Pulses</th>
<th>Mix</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country Programme</td>
<td>1,919</td>
<td>357</td>
<td>453</td>
<td>4,173</td>
<td>118</td>
<td>7,020</td>
</tr>
<tr>
<td>Single Country</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IR-EMOP</td>
<td>364</td>
<td>32</td>
<td>63</td>
<td>36</td>
<td>1</td>
<td>495</td>
</tr>
<tr>
<td>Single Country</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRRO</td>
<td>63,992</td>
<td>3,806</td>
<td>11,373</td>
<td>8,099</td>
<td>383</td>
<td>87,652</td>
</tr>
<tr>
<td>Total Food</td>
<td>66,275</td>
<td>4,195</td>
<td>11,888</td>
<td>12,308</td>
<td>501</td>
<td>95,168</td>
</tr>
<tr>
<td>Distributed in 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cash Based Transfer and Commodity Voucher Distribution (USD)

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Cash</th>
<th>Value Voucher</th>
<th>Commodity Voucher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Country PRRO</td>
<td>5,202,277</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Distributed in 2016</td>
<td>5,202,277</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Supply Chain

WFP Uganda depends on Mombasa and Dar es Salaam sea ports for importation of in-kind donations of food commodities that in 2016 included: fortified maize meal, vegetable oil, grains, pulses, specialized nutritious foods and high energy biscuits.

Favourable local market conditions enabled the Uganda country office to purchase food commodities locally to contribute to requirements in South Sudan, Rwanda, Burundi and Uganda, reducing lead time and costs. Food purchases from Uganda amounting to 126,229 mt of mixed commodities increased 115 percent compared to 58,822 mt procured in 2015. The increase is attributable to improved contract management on the part of suppliers, and an increase in cash contributions to Uganda and South Sudan for local and regional purchase. Of the total tonnage purchased in country, 15 percent went directly to Uganda operations while the balance was sourced for the Global Commodity Management Facility (GCMF) for Uganda and other countries in the region. Uganda used 61,000 mt of GCMF stocks, including both locally and internationally purchased commodities. Currently, the Uganda country office handles food cargo that is in transit to South Sudan, and as a result has increased it storage capacity in Tororo to be able to meet the demands for South Sudan Country Office and GCMF (from 36,000 mt to 75,000 mt.
storage capacity).
The supply chain unit provided support in market assessments to assess feasibility of cash-based transfers for refugees settled in the West Nile region, and engaged local maize mills to provide milling services in the settlements.

Losses in handling and storage were minimal due to strict adherence to commodity management standards and those that occurred were recovered from transport invoices. The country office registered a loss of 34 mt of food at Tororo central delivery point, which happened during the July/August period, when transport to South Sudan was halted due to the outbreak of violence in Juba, and hundreds of trucks en route were stopped and turned back to Tororo. Following this loss, the country office reviewed standard operating procedures, strengthened controls, and increased warehouse staffing levels and management capacity.

The dramatic and sudden increase in the number of refugees from South Sudan stretched the secondary transport capacity of cooperating partners, so WFP augmented this capacity by deploying trucks from the logistics intervention fleet, and deployed staff to support commodity management.

Efficiencies implemented in 2016 included:

- Warehousing and transportation services were provided to other humanitarian partners and other WFP operations in the region, including air operation to South Sudan, increasing economies of scale and reducing costs for all parties.
- Since January 2016, WFP trucks were managed under the Global Fleet Project with a base in Kampala for the Regional Intervention Fleet (LIF), reducing overhead costs.
- Engaging with local millers to provide milling services in the refugee settlements reduced the need for maize meal in the operation, a more expensive commodity than maize grain.

### Annual Food Purchases for the Country (mt)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Local</th>
<th>Regional/International</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beans</td>
<td>3,641</td>
<td>-</td>
<td>3,641</td>
</tr>
<tr>
<td>Iodised Salt</td>
<td>-</td>
<td>578</td>
<td>578</td>
</tr>
<tr>
<td>Maize Meal</td>
<td>11,400</td>
<td>-</td>
<td>11,400</td>
</tr>
<tr>
<td>Rice</td>
<td>-</td>
<td>618</td>
<td>618</td>
</tr>
<tr>
<td>Sorghum/Millet</td>
<td>4,427</td>
<td>-</td>
<td>4,427</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>19,469</td>
<td>1,196</td>
<td>20,664</td>
</tr>
<tr>
<td><strong>Percentage</strong></td>
<td>94.2%</td>
<td>5.8%</td>
<td></td>
</tr>
</tbody>
</table>

### Annual Global Commodity Management Facility Purchases Received in Country (mt)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beans</td>
<td>6,523</td>
</tr>
<tr>
<td>Corn Soya Blend</td>
<td>12,797</td>
</tr>
<tr>
<td>High Energy Biscuits</td>
<td>166</td>
</tr>
<tr>
<td>Maize</td>
<td>22,188</td>
</tr>
<tr>
<td>Ready To Use Supplementary Food</td>
<td>6</td>
</tr>
</tbody>
</table>
### Commodity Table

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorghum/Millet</td>
<td>15,246</td>
</tr>
<tr>
<td>Sugar</td>
<td>194</td>
</tr>
<tr>
<td>Vegetable Oil</td>
<td>3,946</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61,065</strong></td>
</tr>
</tbody>
</table>

### Implementation of Evaluation Recommendations and Lessons Learned

**Country Portfolio Evaluation**

Uganda Country Office undertook a country portfolio (2009–2013) evaluation. The evaluation recommended to the Country Office continued focus on the three priority areas identified and implemented in the country strategy from 2009-2014: emergency humanitarian action, food and nutrition security and agriculture and market support. The country portfolio evaluation also recommended the future country strategies to be results-based and to ensure that outcomes are clearly defined and effectively captured and reported on. The recommendations from the Country Portfolio Evaluation will be taken into consideration during the formulation of the Country Strategic Plan (2018-2022).

**Special Operation to Reduce Post Harvest Losses**

Special Operation 200836 experienced numerous operational challenges. Equipment design and quality challenges, as well as limited production capacity and lengthy procurement processes caused delays in delivering equipment to farmers. Poor transport, storage, and last mile distribution caused further challenges. As the activity has been merged with Country Programme 200894, the programme will be reviewed to improve on delivery time of the equipment. There will also be systematic follow-up actions with farmers to ensure that those who order and make deposits make their final payments and pick up equipment on time.

**Cash vs Food Modalities in the Refugee Programme**

A WFP assessment conducted in refugee settlements in February and September 2016 on the effectiveness of cash and food transfer modalities found that (i) households receiving cash-based transfers (CBT) had a higher absolute expenditure on food, including pulses, meat, fruits and vegetables and, being more vulnerable to price changes, they tended to have higher prevalence of debt to maintain food access; (ii) households receiving cash generally had better diets in terms of quantity and quality; (iii) extremely vulnerable households had higher dietary diversity scores, mainly because of increased access to a variety of food commodities especially, animal proteins; (iv) children in households receiving cash were less likely to be malnourished. The survey also found that in both food-receiving and cash-receiving households, women were the main decision makers and tended to dedicate a larger share of the total household expenditure to food, followed by households where there was joint decision making between men and women. Based on that the country office will increase CBT modality to cover more refugee and non-refugee beneficiaries in 2017. The issue of cash beneficiaries being more vulnerable to price changes will be a key consideration for adjusting the transfer value.

Prior to scaling up the CBT caseload, WFP will conduct additional market assessments as needed to ensure market actors and service providers have sufficient capacity to respond. WFP will further monitor markets and conduct post distribution monitoring to ensure that the transfers are appropriate and markets are responding well. WFP will use market and beneficiary information to determine the appropriate pace of CBT scale up and make adjustments to transfer modalities as needed.

**LEWIE Study among Refugees**

A study conducted by University of Davis, California, on the economic impact of refugees settlements in Uganda in 2016 indicated that refugees created significant economic benefits for the country. It suggested that these benefits would be larger when refugees interacted with the host-country economy around them, when they received assistance in the form of cash that could be spent on locally supplied goods and services, and when they had access to land and other resources to produce food and generate income. The potential economic benefits were also reported larger when governments located refugee settlements in places where local producers could supply refugees’ demands and where there was a potential for refugees to supplement their income by working or establishing businesses. The finding will be useful as WFP formulates its country strategy in 2017 and continues its role of advising government on key policy matters.
Project Objectives and Results

Project Objectives

WFP's support contributed to food security, income and employment opportunities in a country that is largely dependent on agriculture as the main driver of economic growth. This special operation aimed to support the Government of Uganda and WFP’s Strategic Objectives to address two of the five objectives of the United Nations Secretary General’s Zero Hunger Challenge:

1) increase 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 food and nutritional needs, the project had four objectives: i) improve the household income of smallholder farmers; ii) improve the nutrition of smallholder farming families; iii) increase availability of food for family consumption; and iv) develop a clear sustainability strategy by encouraging strong private sector engagement.

The special operation, which ended in May 2016, was built on the successful implementation of the preceding special operation (SO 200671) under which participating smallholder farmers enjoyed significant improvements in household income 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. Participating farmers were trained in improved farm management practices and equipped with modern storage equipment to reduce post-harvest losses.

Approved Budget for Project Duration (USD)

<table>
<thead>
<tr>
<th>Cost Category</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity Dev.t and Augmentation</td>
<td>5,006,703</td>
</tr>
<tr>
<td>Direct Support Costs</td>
<td>288,445</td>
</tr>
<tr>
<td>Indirect Support Costs</td>
<td>370,660</td>
</tr>
<tr>
<td>Total</td>
<td>5,665,809</td>
</tr>
</tbody>
</table>

Project Activities

WFP focused the programme activities on food surplus producing areas of the country, and selected farmers who had the capacity to produce marketable surpluses and were already a member of a farmers’ organisation to participate in the programme. Training of farmers started in 2015 and was completed in March 2016, reaching a total of 5,428 farmers (54 percent women and 46 percent men). Fifty percent of the farmers trained also received follow-up refresher training at the household level on how to set up and use the post-harvest household storage equipment provided.

Activities under the special operation were integrated into the Uganda country programme’s (CP 200894) Agriculture and Market Support (AMS) component, following the special operation's financial closure. Focused on smallholder farmer livelihoods, the special operation and AMS activities were integrated, and combine to provide a more efficient and effective means of increasing the resilience of Uganda’s smallholder farmers. (Results of these activities are reported under CP 200894.)
Operational Partnerships

The special operation aimed 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 were demonstrated at scale. While NGO partners trained the farmers, private sector distributors took equipment orders, collected deposits from the farmers, 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 members of the farming communities.

Key private sector partners included: AKORION (Busoga region); Venturesome (Teso region); Grand Supplies and Agrinet (Acholi region); Joseph Initiative (Western region); and Native Engineering (South Western region).

Government ministries and NGO cooperating partners also participated, including: 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).

Results/Outcomes

Outputs

Under this project, 5,428 farmers were trained in improved post-harvest management methods. Eighty-eight percent (4,789) of these farmers made orders and placed deposits for improved post-harvest drying and storage equipment. Fifty percent of the price of the post-harvest storage equipment was subsidized by WFP.

Outcomes

The monitoring and evaluation phase of the project ran from February 2016 through May 2016. All associated outcomes of the project are reported under CP 200894, component 3.
Figures and Indicators

Data Notes

Cover Page Photo © WFP/Uganda Country Office

Smallholder farmers open their hermetic storage units after 100 days to find good grain compared to grain stored in traditional storage in Pajule - Uganda.