Catholic Relief Services / Uganda

Mid Term Evaluation

FY 2002-2006 Uganda Title-II
Development Activity Program

Transfer Authorization Award No. FFP-A-00-02-00006-00

Ben Phillips

Catholic Relief Services
P.O. Box 30086
Kampala, Uganda,

Tel. 256-41-510103
Fax 256-41-510101

e-mail:bphillips@crsuganda.or.ug

TABLE OF CONTENTS

List of tables

List of figures

List of Acronyms

APEP	Agricultural Productivity Enhancement Program
CARE	Carry American Relief Every where
CEF	Community Extension Facilitators
CFEW	Community Farmer Extension Workers
CIAT	International Centre for Tropical Agriculture
COU	Church of Uganda
CRS	Catholic Relief Services
DAP	Development Activity Program
FEWS	Farming Early Warning Systems
FEW	Field Extension Facilitators
FY	Financial year
IDPs	Internally displaced persons
IITA	International Institute of Tropical Agriculture
LOA	Life of Activity
LRA	Lords Resistance Army
MOI	Market Opportunities Identification
NAADS	National Agricultural and Advisory Development Services
NARO	National Agricultural Research Organization
NGOs	Non – Governmental Organization
NURP	Northern Uganda Reconstruction Program
NUSAF	Northern Uganda Social Action Fund
TAC	Technology Adoption Committee
TO	Technical Officer
USAID	United States Agency for International Development

ACKNOWLEDGEMENT

The consultant and supporting authors who guided the mid term evaluation gratefully acknowledge the interest and support of many implementing partners and all the interviewees including the local traditional leaders, local councils at various levels, district staff especially the production department, NAADS Coordinator Kitgum and the different NGOs as well as farmers who generously provided their time, insights, and experience to this exercise. The information required for the extensive analyses and evaluation to generate the recommendations that are in this Report came from the participation of the various sources, often provided by those who took extra time or who made special efforts to help by traveling to distant field locations, often insecure roads in Gulu and Kitgum. The staff and management of CRS as well as implementing partners [Caritas Gulu and Kitgum, Diocese of Northern Uganda] were especially supportive at the different stages of the evaluation exercise. The contribution from the M&E officer of CRS especially on formulation of questionnaires and translation in to local language was very useful to the quality of the evaluation. Other individuals from the district department of agriculture; Charles, Julius and George, willingly met with the team and shared their views, experience and supported the consultant on the formulation of questionnaires and checklist for interviews to guide the data collection.

The willingness of the different stakeholders to make themselves available and participate in the evaluation is indicative of the importance and interest that they attach to the program.

Executive Summary

The CRS Uganda DAP started operating in April 2002 instead of October 2001 and it is scheduled to end in September 2006. The first six months were used for a slow establishment and identification of opportunities while waiting the release of funds. Therefore, the project activities have only been effective for the last of 28 months. The CRS DAP was primarily designed to respond to transitional type of implementation environment and support the agricultural recovery process of the internally displaced persons [IDPs] in Northern Uganda. The project targets mainly internally displaced (IDP) households with a bias towards women. The CRS objectives for the project coincides with and contributes to the government of Uganda's strategic focus on poverty alleviation as articulated in the Poverty Eradication Action Plan (PEAP), the plan for the Modernization of Agriculture and the Northern Uganda Reconstruction Program (NURP II). The DAP also complements USAID's objective SO7 (Environmentally Sustainable Economic Growth) and SO8 (improved Social Service delivery). USAID supports the PEAP and improvement of rural livelihoods through promotion of both traditional and non-traditional crops, with an emphasis on food security and market promotion.

The program focuses on improving food security and agricultural income of the IDP and rural households through a three pronged approach. To achieve those results, CRS implements the program in partnership with Caritas Gulu, which is [the social and economic development wing of the Catholic church] in Gulu Archdiocese and the Anglican Church of Uganda and reports on the following main indicators: (i) number of small-scale farmer groups established and farmers assisted; (ii) average increase in agricultural production by crop per household; (ii) number of acres secured for IDP farmers; (iv) total value of seed / planting material purchased at seed fairs; (v) number of valley dams tanks rehabilitated; (vi) percent of all trained (cumulative) applying at least 3 improved farming techniques; (vii) number of farmers' marketing associations established; (viii) percent of women's association members; (ix) total value of production for participant farmers; (x) gross sales by program assisted farmer associations (xi) number of companies and other enterprises doing business with producer groups. It is anticipated that by the end of project period, 20,000 small-scale farm families, representing at least 120,000 people [average household size of 6] or 1,000 farmer groups would be directly assisted by the project. CRS has thus far assisted 11,701 small-scale farmers, representing 59% of the 20,000 targeted for assistance by project completion date.

Furthermore, production targets have been consistently surpassed for Finger Millet, Groundnuts, and Maize during the first two years of the project. Agricultural interventions up to the mid term period have been primarily focused on these three crops and tuber crops [cassava and sweet potato] including—training in crop management, the use of good quality seed, and the evaluation of new varieties. The project secured 1,852 acres of land for use by IDP families and assisted 12,981 farm families access seed through the seed fairs and vouchers approach injecting a total amount of 103,882 USD in to the local economy through the vendors selling 389.8 MT of seed of different crops and varieties. Despite the slippages in security situation and other related challenges to this component, the program managed to rehabilitate 2 valley dams. Apart from the 11,701 farmers, CRS established 26 marketing associations to benefit from the market-oriented approach to agricultural production. All the program participants benefited from training and over 21% of the farmers practice at least three improved practices. A total of 72.4% of the interviewed farmers expressed practical training in farmers' field as the most helpful method of transferring knowledge and skills.

The various efforts and strategies of the program in implementing the agricultural program has resulted in 91% of the farmers interviewed realizing an increase in the sale of crop produce as compared to the sales in 2001 before the inception of the project. Many of the program farmers,

have been identified as potential source of improved crop germplasm by the district agriculture as well as other international organizations supporting agriculture. During the implementation phase, CRS program has come across several challenges that originated change of strategy to the original program design: a) structuring of the extension service provision by involving the technology adoption committee (TAC) and community extension contact farmers (CEF); (b) changes to geographic targets based on security assessment; expansion to Kitgum was triggered by the pull out from Pader; c) use of machinery from the local government to improve the quality of work and shorten the period for rehabilitation of valley dams and; d) the adoption of the territorial agro-enterprise approach for the marketing component and subsequent staffing adjustments. These implementation strategy adjustments produced mixed results. Use of machinery improved the progress of work with the first two valley dams but withdrawal of the machinery could also mean the opposite. The adoption of the marketing strategy was noble but the learning by doing slowed down tangible progress. Besides the focus on small groups aiming at improving their capacity to; form strong groups, establish capable leadership and have some sort of business support services needs to be strengthened.

Within the context of Northern Uganda, the current project design integrating relief and development is very compatible and seems to have worked well despite the challenges. The program is still appropriate to respond to the development challenge ahead with little adjustments and recommendations for the remainder of the project include revision of targets realistically as well as re-organizing the staffing to enhance impact. CRS and Partner staff should take the lessons from this evaluation to achieve the overall strategic objective of the program.

1.0 INTRODUCTION

1.1 Background Context.

Catholic Relief Services (CRS) Uganda Program identified key sectors and regions of priority for it's DAP based on broader analysis of food insecurity problems in Uganda.

Although Uganda is considered to be self-sufficient in food production, pockets of food insecurity exist within sub-populations and sub-regions. Prolonged civil unrest in Northern Uganda – once the country's agricultural stronghold- is compounded by poverty, disease and low investment of public resources. Massive displacement of the civilian population has forced over 85% of the rural population to live in the so-called "protected villages" which are camps of internally displaced people. Most of the displaced families have lost productive members to abduction and death, suffer from a lack of food availability due to low agricultural production, and from limited access to food due to low purchasing power and shortage of productive assets such as land and farm labor. These problems are further compounded in the drier parts of the Acholi-sub region, by intermittent drought and critical shortage of drinking water, particularly during the dry season.

CRS began implementing the 5-year USAID funded Development Activity Program (DAP) in the year 2002. The CRS DAP was primarily designed to respond to transitional type of implementation environment and support the agricultural recovery process of the internally displaced persons [IDPs] in Northern Uganda while the necessary level of precaution was taken in to account so that the project remains responsive in case of slippages in security condition.

The CRS DAP makes a contribution to the government of Uganda's strategic focus on poverty alleviation as articulated in the Poverty Eradication Action Plan (PEAP), the plan for the Modernization of Agriculture and the Northern Uganda Reconstruction Program (NURP II). CRS activities also fit with the District Development Plans and the existing interventions of USAID's Cooperating Sponsors, international and national research as well as non-governmental organizations active in Northern Uganda.

The DAP also complements the USAID's objective SO7 (Environmentally Sustainable Economic Growth), SO8 (improved Social Service delivery). USAID supports the modernization of agriculture and improvement of rural livelihoods through promotion of both traditional and non-traditional crops, with an emphasis on export promotion. CRS collaborates with national [NARO] and international [IITA/CIAT/ICRISAT/CIP] research stations towards this effort.

1.2 Project objectives

The overall objective of this project was to improve food security and increase incomes of 20,000 smallholder farm families in Northern Uganda. The strategic objective states "increasing the agricultural income by re-establishing livelihoods and strengthening market systems".

1.3 Project components

In order to accomplish its objective, the project concentrates on activities that contribute to increasing effectiveness of agricultural production and marketing while addressing infrastructure rehabilitation and safety nets. Therefore, CRS designed a program with three major components:

Intermediate Result 1.1. Increased agricultural production by 20,000 farm families in the targeted areas by 2006.

This IR was designed to contribute towards restoration of livelihoods and increased household income by enhancing access to land, seeds and planting material. This IR enables the program to be responsive to downturns in the security situation by assisting displaced or in-transit households to sustain their livelihoods during the early stages and backslides of the long anticipated transition period.

Intermediate Result 1.2 Increased the capacity for recovery of 200 communities in targeted areas by 2006.

This IR was designed to contribute towards livelihood recovery by improving community assets. This IR was meant to provide the asset base that bolsters the production activities in IR.1 and sustain market activities in IR.3 under a more stable situation. The key activity under this IR is rehabilitation of valley dams and tanks to provide communities with reliable, year-round source of portable drinking water and water for livestock and irrigation purposes.

Although CRS has registered success on IR.1.1 and IR.1.3 the component of valley dam rehabilitation has been challenging mainly due to insecurity.

Intermediate Result 1.3 Increased crop productivity and profitability for 20,000 farm families in targeted areas by 2006.

IR.3 was designed to respond to two linked problems affecting the Acholi farming system: the lack of access to and information about improved traditional crop varieties, and the breakdown of markets and marketing capacities among communities. The crops to be promoted under this IR include rice, cassava, sesame, groundnut, and pigeon peas. However the productivity activities were scheduled to commence in the second year of the DAP while the profitability was scheduled to commence in the third year of implementation. Due to the marketing approach CRS has adopted, decisions were made to initiate the marketing earlier than the original schedule and this has enabled the project to complete important studies that identified the best options for marketing.

1.4 Project implementation approach

CRS started operating in Northern Uganda since 1997 and its major sector of intervention has been food security. In principle, implementation of the DAP started in October 2002, however, the first six months were used for a slow establishment and identification of opportunities while waiting the release of funds. Therefore, the effective project operation activities only started in April 2002, after funds were released and the project is scheduled to end in September 2006.

CRS Uganda opted to use a three-pronged strategy to reach out to smallholder farmers and build their capacity to ensure that groups of farmers participate in and benefit by improving their production and income. The ***first strategy*** focuses on capacity building of the farmers. It consisted of establishing and/or strengthening existing farmer groups and providing them with necessary support to ensure access to land and information to enable them to improve production as well as identify potential markets. It is part of the Acholi tradition for farmers to work in groups and improving community structures by strengthening group dynamics and structure is a vital factor for a success of any development activity and sustainability. The ***second strategy*** was to improve the quality of agricultural products through facilitation of access to improved seeds and appropriate technologies. The ***third strategy*** consisted of identifying and facilitating linkages between smallholder farmers, buyers and agro-enterprise service providers. The strategies employed up to the mid term period mainly consist the first two. More effort will be excreted on the third strategy in the post mid term period of the project, in order to enable smallholders to be able to sell their product(s) at competitive prices and have a regular and reliable share of the market network to increase their income.

The valley dam component is a ***fourth strategy*** on its own. This component was designed to strengthen the capacity for recovery by rehabilitating valley dams to improve access and availability of water for multiple uses; clean water for drinking, for animal consumption and support economic activities such as brick making and small scale vegetable irrigation. The food for work component provides a safety net to supplement household production in the drought/dry spell prone area during the dry season by creating a form of employment for the able persons.

1.5 Implementing Partners and Geographic focus

CRS implements the program in partnership with Caritas Gulu, [the social and economic development wing of the Catholic church in Gulu Archdioces] and the Anglican Church of Uganda. Caritas Gulu implements in Gulu, Kitgum and Pader districts while the Diocese of Northern Uganda implements in Aswa and Kilak counties of Gulu district.

The DAP addresses one of the objectives of the strategic program plan of the agency that states; "Re-establish sustainable agricultural systems, with a focus on small holder farmers whose potential crop production levels are high, but whose abilities to reach that potential are compromised by protracted insecurity and economic marginalization."

Northern Uganda region, known as Acholi-land, comprising the districts of Gulu, Kitgum and Pader is one of the geographic areas with the highest concentration of displaced farm families. CRS, jointly with its implementing partners, the district food security coordination unit and relevant stakeholders, have carried out detailed mapping exercises and baseline survey of the potential target districts, leading to the identification of sub-counties and camps primarily in Gulu and Pader district as the most suitable areas for the startup of the DAP activity. However, intensified insecurity compelled the project to withdraw its activities from Pader temporarily and new sites were identified in Kitgum district.

However, the locations/sites for the marketing component were required to meet the following important characteristics at least for the initial registration. Therefore, locations were identified if the assessment revealed the area was:

- Relatively secure and would allow for a wide intervention of the marketing component
- Have graduating DAP farmer groups [stayed with the project or served in previous food security program by CRS]. Hence have an existing tradition of small-scale agricultural production for local markets and a potential to strengthen operating producer organizations.
- Accessible at all times [seasons]: have a reasonably good road network and access to processing and other agricultural support services.

1.6 Evaluation objectives

The program was in its third year of implementation in financial year 2004 and a mid-term evaluation for the program was conducted in July and August 2004 with the aim of achieving the following results:

1. To review progress on project goals and objectives during the first half of the project in relation to baseline indicators, life-of-activity targets and key assumptions.

2. To identify problems and constraints to achieving them.

3. Together with CRS and partners' staff, to develop actionable recommendations.

With the aim of having an independent review of its programs CRS hired a private professional consultant to undertake the mid term evaluation and the field and desk based evaluation was conducted using a participatory evaluation approach by combining qualitative and quantitative methods of assessment.

2.0 METHODOLOGY

The evaluation was conducted over a period of four weeks, from 20th July to 20th August 2004. A consultant with many years of experience in agricultural research and evaluation of USAID-funded food security programs led the evaluation. Among the team of experts involved in the exercise includes the CRS monitoring and evaluation coordinator, the Northern Area Manager, Agriculture team leader, Marketing officer, district agriculture staff and CRS partners.

The team leader guided the design and had the primary responsibility for the execution of the evaluation, compilation of the report, and presentation of the results to stakeholders. The key element of the participatory evaluation was to solicit views from the communities participating in the program. Knowing that the majority were illiterate, appropriate and simple tools in the questionnaires were translated into the local language in order to capture inputs from the rural communities.

2.1 Data Collection

The survey team held a two-day workshop to develop the survey tools (questionnaires and check lists) that were used to collect both qualitative and quantitative data. The evaluation was interfaced with qualitative and quantitative assessments of progress on the three components of the project and the lead consultant used the following methodology:

a) Field visits;
b) Key informant interviews.
c) Household surveys/interviews.
d) Group interviews with farmers/producers assisted by the project staff.
e) Project documents and reports review.

The lead consultant had consultative meetings with the key stakeholders in the agricultural sector, local leaders and interviews with CRS core DAP team as well as the partner managers and field staff. Interviews were conducted with the DAP beneficiaries (groups and individuals), other stakeholders, relevant district officials, NAADS and APEP.

2.2 Data Analysis and Presentation

The consultant that led this evaluation was unable to complete the report due to severe health problems. Hence, analysis of most of the qualitative data was undertaken by CRS staff using excel program to compute frequencies and percentages that generated the graphs and charts in this report to support narrative report submitted by the consultant. The preliminary report was presented to the USAID Mission in Kampala, CRS staff, Partners and other NGOs. The issues discussed at the meeting and comments received afterwards were reviewed and incorporated in the final document to the extent judged appropriate.

3.0 RESULTS AND IMPACT

The program monitors the performance of the project using the data collected by DAP staff. This data is consolidated into the Performance Tracking Table which is an integral part of the DAP reports to USAID. The most current table is presented in Annex B. However, the performance of the project under the different intermediate results is presented below to show planned against the actual performance

3.1 Intermediate Result 1.1: Increased agricultural production by 20,000 farm-families in targeted areas by 2006.

This IR1.1 is focused on increasing production of traditional Acholi crops, finger millet, groundnuts, sorghum, maize, rice, and beans, by farmers and farmer groups participating in DAP activities; Targets were established such that at the end of the project, crop production would have increased by 25% on the baseline figures. The baseline data, cumulative targets and results achieved for the various performance indicators under intermediate result 1.1 are presented in Table 1.

The production targets have been consistently surpassed for Finger Millet, Groundnuts, and Maize during the first two years of the project (Table 1&2). Most of the DAP agricultural interventions have been focused on these three crops including—training in crop management, the use of good quality seed, and the evaluation of new varieties. It should be noted that the amount by which the targets are being surpassed is diminishing over time indicating that production may be stabilizing.

Given the problems with land access due to the insecurity, displaced farmers have been cultivating the same piece twice a year consecutively for a period of over three years leading to possible soil exhaustion.

Table 1: Average Mid term performance indicators for IR. 1.1

Indicators	Baseline	Mid Term Average Target [3 years]	Average Achieved [in 2 years]	Percentage Variance
Increase in average agricultural production per farm family (cumulative), by crop, in Kg (*Outcome)*				
a. Finger millet	427	470	468	- 0.4%
b. Groundnuts	396	436	458	5.04%
c. Sorghum	477	525	320	- 39%
d. Maize	473	520	612	17.7%
e. Rice	641	705	472	- 33.04%
h. Beans	376	414	381	- 7.9%
Number of farmer groups mobilized.	0	500	567	13.4%
Percent of women group members.	0	60.0%	64.3%	4.3%
Number of acres secured for displaced farmers	0	1,500	1,852	23.5%
Total value of seed / planting material purchased by vouchers at seed fairs [USD/ 1:1,800]	$0	$84,000	$103,882	N/A
Percent of women seed vendors	0	140.0%	65.7%	-74.3%

** Sorghum production information was partial due to incomplete harvest data. Hence, the average reflects a reduced production level below

Although this evaluation did not sample soil for fertility, signs of poor soil fertility were evident changes on the leaf color of maize [pale yellow, with thin stems indicating Nitrogen deficiency] and beans [light green and yellow color more prominent of the lower leaves indicating N deficiency/ small dark green leaves in some locations indicating Phosphorus deficiency] crops as well as emergence of and indicator weeds in many of the areas visited.

The production targets for Sorghum, Rice, and Beans have not been achieved. Interventions in these three crops, particularly Rice, have been limited mainly due to agricultural practices and the conflict. A small number of new varieties of Sorghum and Beans have been introduced for farmer evaluation; no new rice varieties have been evaluated as part of the DAP so far as the project focused on addressing food security in the first two years of the project and the marketing component had a slow start.

Factors other than improved germplasm and better agricultural practices influence crop production. Farmers indicated that the rains came late this year and the amount of rain was less than in previous years. The Government extension services and Farming Early Warning System Network [FEWS Network] have estimated that there will be significant production declines this year [2004]. Maize is particularly susceptible to the variation of climate.

Table 2: Actual Production Targets in kg (% achieved vs. target)

Crop	Baseline	FY02		FY03		FY04		FY05	FY06
		5% incr		10% incr		15% incr		20% incr	25% incr
a. Finger millet	427	448*	(114%)	470*	(101%)	414	(84.7%)	483	491
b. Groundnuts	396	416*	(114%)	436*	(106%)	455	(94.6%)	447	455
c. Sorghum	477	501	(68%)	525	(55%)	549	(60.3%)	572	549
d. Maize	473	496*	(155%)	520*	(104%)	591	(96.7%)	568	591
e. Rice	641	673	(85%)	705	(88%)	737	(30.5%)	769	801
f. Beans	376	395	(98%)	414	(92%)	432	(86%)	425	432

Farmers are constrained to cropping on plots of land close to the "protected villages" and they can no longer practice the traditional fallow system to allow regeneration of soil fertility and check pest and disease pressures. Since there are no animals to produce manure, no external fertilization is being applied to the fields. While many people indicated that the soils, particularly in Gulu, are very fertile, soil fertility will gradually decline under continuous cropping. People are already talking about the soil being "tired".

It is unreasonable to expect agricultural production to increase and be maintained at the levels proposed by the DAP targets using only improved germplasm and better cropping practices. If soil fertility is reduced enough, the new varieties will become less productive because few research programs breed crops for below optimum environments. Farmers will then return to their traditional varieties, which can usually produce something in unfavorable conditions. If farmers are able to return home during the life of the project and reopen their fields, the issue of soil fertility will have less effect on overall production targets.

The production targets established by the project are overall targets based on averages of production in Gulu and Kitgum Districts. This year, two extension agents have been posted to Pader District as an initial step for expanding activities following relative improvement in security conditions. Pader is more similar to Kitgum in its agro-climatic conditions and both are less productive compared to Gulu. Rainfall is highly variable and crop production is lower than in Gulu District. When the crop production figures of Pader are included in the calculations to determine target achievement, the overall figures may not be as favorable as they have been with just the two districts (Gulu, Kitgum) included in the monitoring.

3.1.1 Establish 1,000 farmer groups for participation in following activities.

Farmer groups are formed in order to facilitate the provision of extension services by the DAP team. This strategy is based upon the traditional Acholi system of rural people working together to ease the burden of agricultural activities. The overall target is for 1000 farmers' groups to benefit by the end of the Project. Table 3 presents the number of farmers who have registered to participate and benefit from the DAP since project initiation.

In order to ensure rapid implementation of project activities in the first year, the initial groups and members were selected from those who had participated in previous CRS agricultural

projects. In the second year, the target was 200, which was achieved and surpassed despite the suspension of activities in Pader District.

Table 3: Number of persons registered in farmers' groups

Organization	FY02	FY03	FY04	Total
Gulu	341	1,231	1,778	**3,350**
Gulu	384	1,220	1,440	3,044
Kitgum	490	2,220	1,389	4,099
Pader			1,300	1,300
Total Beneficiaries	1,215	4,671	5,815	11,701
Total Groups	61	215	291*	567

* Target not achieved

At mid-term, slightly more than half of the total targeted farm families have participated in the project by joining into groups. For FY04 the target of 250 was not achieved because of insecurity—some groups, which had initially registered were unable to undertake activities due to military operations that compelled them to relocate to the camps.

This year, because Caritas Kitgum has returned to Pader District to implement DAP activities, it is anticipated that the number of groups can be increased and the targets can be met. Based on the results of this evaluation and discussions with a wide range of stakeholders, it is unclear that it is advisable to meet the targets for two reasons: 1) the ability of the current staff to effectively backstop the number of groups being formed; 2) the capacity of the groups to function and thrive after only two years of DAP interventions.

The initial 61 groups have "graduated" from DAP. Most are still working together; some have formalized their association and are providing services to new farmer groups. Several have been approached by other NGOs working in the region to assist them in implementing agricultural activities. These groups benefited from four to five years of collaboration with CRS and its Partners (previous relief and development efforts). It is unclear that the new groups will be able to evolve to this level after only two years of support.

A proposal for expanding services to farmers' groups is presented in the section on implementation issues.

3.1.2 Provide access to farmland for displaced, returning and relocated farm families.

The Governments' decision and ultimatum by the army for the civilian population in north to move in to the so called "protected villages" has destabilized the local economy and caused a significant decline in agricultural production in a part of Uganda which had previously been considered the country's bread basket. Most people found themselves too far from their own land or the level of insecurity was too intense for them to continue farming. The DAP team has been able to assist the farmers' group with which they work to gain access to farmland by negotiating temporary use of 1,852 acres of land which is 74.08 % of the life of project target of 2500 acres. This land is from the extensive landholdings of the Partner organizations and from large landowners around the trading centers. In some cases, the landowners were members of a DAP group who gave the benefiting groups access for establishing demonstrations and seed multiplication plots. In other cases, the landowner is not a group

member but has large acreages of land to farm manually. The very existence of the groups and the fact that they have technical support from the DAP has given some groups leverage to be able to negotiate land for their members without direct intervention of the DAP team. In addition, as the group members have earned income from the sale of their agricultural production, some have indicated that they can now rent land to expand their agricultural activities.

All the agreements for land access are temporary arrangements for the period of time in which the farmers are obliged to stay in the camps. The land will revert to its original owner when the farmers return home.

The average acreage per household under the different crops grown in the two seasons of 2003 is given in *Figure 1*. In the first season farmers mainly grew maize, sweet potatoes

Figure 1: Average Household Acreage Cultivated under the different crops in 2003

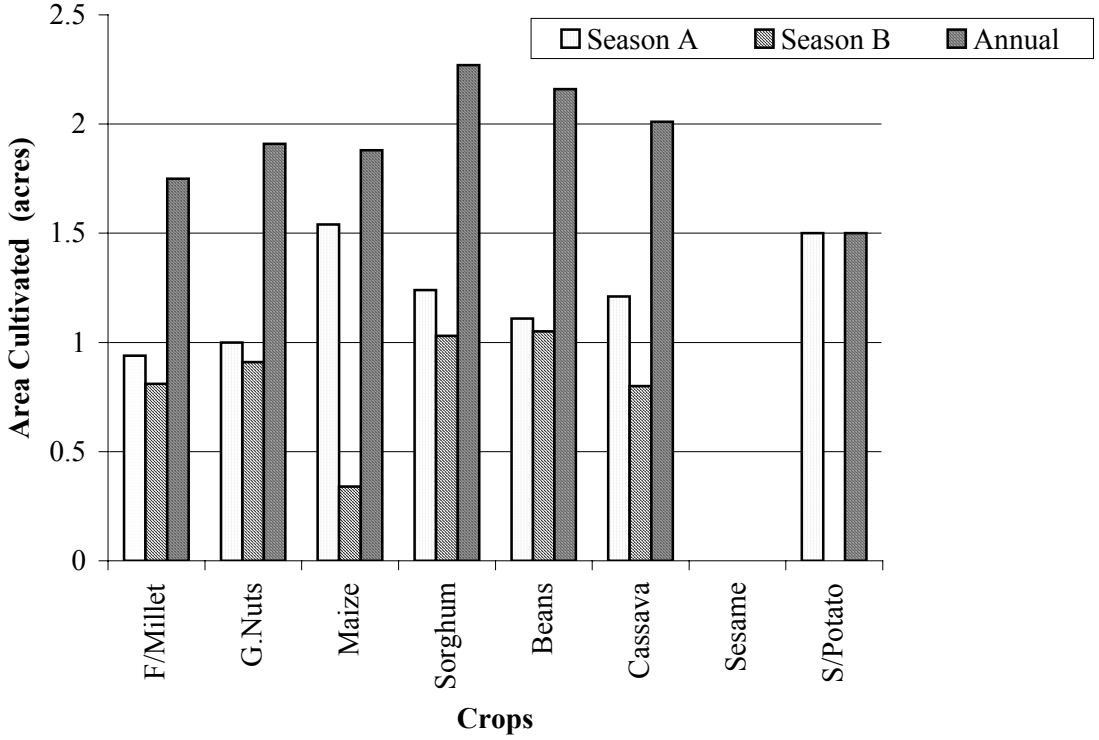


Figure 1
In the case of sorghum over 80% of the farmers cultivate a long maturing variety of Sorghum locally known as "Kabi". Therefore, the increase on annual acreage has been influenced by double entry of the records for the first season, since the same crop is recorded on the second season as well.

The bar chart reveals the second cultivation season [season B] is not as intensive as the first season. However, finger millet, groundnut and beans are cultivated on a reasonably similar acreage to the first season, while sesame remains as the main crop for season B.

According to studies by (SCF-UK; preliminary findings of WFP 2004) households with land access to 0.5 to 0.75 acre can only produce about a quarter to a third of their food needs. Therefore, a minimum of about 3 acres per household is required to meet household food

self-reliance. Land holding per household greatly varies between and even within districts and camps primarily depending on the distance of displacement from the original homestead and level of security around the camps to allow access to cultivation fields.

Table 4:Average Land size /household (Acres)

District	Acre/household
Kitgum	1.42
Gulu	3.69
Pader	2.6
Overall	**2.57**

Security incident reports from the justice and peace commission of the Gulu archdioceses reflect over 100 people have been killed between January and August 2004 in about 9 camps indicating the level of risk that farmers take when they go out to cultivate. While over 60% of the displaced people in the camps hail from areas less than 4 Km away, a small group of farmers come from a distance of more than 5 km and even from a neighboring district.

The project targets households with limited or no access to land under this activity but given the sensitivity around land no formal documentation is undertaken in most cases to clarify the terms of use for the land. Given the limited availability of land only a small percentage of the displaced are assisted with land.

Issues revolving around land access are less understood due to the difficulties of a more comprehensive study and insecurity that restricts such a survey.

3.1.3 Facilitate the availability of locally produced seed/planting material of traditional crops for program participants.

The farmer groups as well as the Partner organizations have established seed multiplication plots in order to provide members with planting materials. Since the number of field locations visited during this evaluation was limited, the few that were visited indicated potential problems. The fields of the Partner organizations were well laid out and maintained. In some cases, the plots are used for both seed multiplication and demonstrations—two activities, which may not be compatible.

The amount of seed initially made available to farmers is often very limited. In order to avoid disputes, CRS staff encourages the partners to provide each group member with a small quantity of seed rather than relying on group multiplication. Often, if the amount of seed is very limited, it is given first to the TAC farmers. This is understandable because the TAC farmer is asked to provide a free service to the members and it is important to keep him/her motivated for him/her to continue to work for the membership.

In some cases, the group prefers to receive the seed as a group rather than a very small quantity for each member. They often decide to divide the harvest equally among all the members. During the evaluation, a group was multiplying maize on very poor land. At one end of the field, the plants were stunted; at the other (the end closest to the house and which received all the household waste), the plants were vigorous. The group members recognized that the soil fertility was highly variable in different parts of the plot. Rather than use the

whole field, the group should have concentrated their efforts on the more fertile part. Since access to land is limited, groups may not have much choice in where they place the multiplication and demonstration plots. Also, groups may be hesitant to use productive land for seed multiplication when they need to produce food, unless the benefits from growing seed can outweigh food production. They need, however, to recognize that to have healthy, good quality seed for future production, more care should be given to site selection and crop management when doing seed multiplication.

For some groups, seed multiplication and production of vegetative planting materials have become commercially viable operations. As more NGOs and government development agencies become active in the Districts of Northern Uganda, demand for good quality seed and planting materials of new varieties has increased significantly. Since CRS and its Partners have been in the forefront of providing improved germplasm to farmers, the farmers who have increased their production and maintained the germplasm can take advantage of this market niche. Recently, World Vision has contacted CARITAS to purchase Seranut 4, one of the new groundnut varieties, which is being multiplied by the farmers' groups. It is only CRS that has multiplied this particular variety. Many of the CRS supported farmers could make money out of seed interventions if a more farmer-centered approach is adopted by other agencies to allow local purchase. Farmers in Gulu have sold planting material to the District Agriculture department. In addition, some of the DAP farmers in Kitgum have been able to sell their seed at the Seed Fairs organized by CRS.

According to the DAP project document, seed fairs would be organized as needed during the life of the project. Until this year, the amount of money allocated to seed fairs has surpassed the amounts targeted. A total of 12,891 households (Gulu – 9,012 HH, Kitgum – 3,879 HH) benefited from the seed fairs and vouchers intervention, as voucher recipients and 75.6% were women. In addition, the seed fairs in the various sites attracted 1,866 seed vendors out of which only 21.9% were women. At a voucher value of 15,000 Ush [~8.4 USD] a total amount of 103,882 USD has been injected in to the local economy through the vendors who sold a total quantity of 380.8 MT of seed for the different crops and varieties.

Farmers have appreciated being able to select the quantity, quality, and type of seed that they want. Most farmers who indicated during the evaluation that they had participated in Seed Fairs either as sellers or buyers were satisfied with the process. When a farmer expressed dissatisfaction, it was usually because he/she was looking for a particular variety which was either unavailable or which had already sold out. For the most part, the Seed Fair and Voucher system has been used as a relief activity. At least until the end of this DAP cycle, it may still be necessary to organize the Seed Fairs, particularly in Pader District and in the less secure parts of Kitgum and Gulu Districts. Seed fairs could also be very essential to support returnee farmers access adequate good quality seed for better recovery, if the return of farmers to their home villages occurs within the life of the current DAP. In the future, since the organization of a market dedicated to input purchase provides a service for both sellers and buyers, it may be useful to find ways of institutionalizing this type of encounter (minus the vouchers) prior to each cropping season, at least until a more structured input system is functional throughout the region. It is evident the seed fairs and vouchers has multiple advantages. CRS needs to develop a better monitoring system to capture impact of the cash injected in to the local economy. The approach encourages diversified production that promotes dietary diversity to enhance the nutritional balance of the diet while enabling the farmers to manage risk of losing all their harvest to a major crop pest or disease.

3.2 Intermediate Result 1.2: Increased capacity for recovery of 200 communities in targeted areas by 2006.

Intermediate Result 1.2 is focused on increased capacity for recovery of 200 communities in the targeted areas by 2006. It aims at rehabilitating valley dams and ensuring that the rehabilitated dam provide consistent water supply to the targeted communities and providing mechanisms for their sustainability. Targets were established such that at the end of the project, valley dams rehabilitated will be 15 and water supply for the communities will be consistent for at least 11 months. The baseline data, cumulative targets and results achieved for the various performance indicators under intermediate result 1.2 are presented in Table 4.

Table 5: Cumulative mid term performance indicators for IR. 1.2

Performance Indicator	Baseline	Cumulative TARGET FY-02-04	Results 04
Average month of consistent water supply	8	10	-
Percent of structures maintained 1 year after project	0		
Number of valley dam/tanks rehabilitated	0	9	2

** *No valley dam rehabilitation work in the first two years due to insecurity.*

3.2.1 Development of community rehabilitation plans in targeted areas.

This intermediate result was essentially removed when the DAP was approved and the budget negotiated. The plans now of interest to the DAP are those related to the management of the water supply of the rehabilitated community valley dams/tanks. The two valley dams currently being rehabilitated were visited during the evaluation. Unfortunately, discussions with community members were only conducted at the Akworo dam because the visit to Lagwal coincided with the WFP food distribution.

Despite the fact that the DAP team has had numerous meetings with the community to enhance their sense of ownership and to make them aware of their responsibility in overall maintenance after the rehabilitation is complete, it was apparent that there are still some issues that need to be addressed. More details are found in the section on implementation issues.

3.2.2 Rehabilitate 15 multi-purpose community valley dams/tanks.

To date, two-valley dam are in the process of being rehabilitated out of 15, which were proposed in the project document. Late startup due to insecurity in the area and certain hesitancy by the population to work for food when WFP is distributing free food has led to a shift in approach from a daily rations to task based food-for-work system. The DAP team has arranged with Kitgum District to use their heavy machinery to do the major clearing and earth moving work leaving the remaining tasks to be accomplished through the participation of the local communities using the task-based food-for-work approach. The Akworo dam is closer to being finished and during the evaluation the technicians indicated that they could complete the work on both dams by September 2004.

According to the technicians, they can realistically complete four valley dams each in the next two years, FY-05 and FY-06 respectively. They propose to reduce the overall target to 10. However, based on his assessment of the situation and realities on ground the CRS Northern Area Manager advices for a target of 3 dams in FY-05 and four in FY-06.

There are some implementation issues related to the delays due to insecurity, climatic factors [work progress was slowed down during periods of intense rain] and some misunderstandings between CRS and Caritas concerning roles and responsibilities seem to impact on the project negatively. In an attempt to support the partner and increase the pace of implementation, CRS staffs have many times appeared to be implementing more directly and the good intentions have created friction between CRS and Caritas staff. The evaluation consultant was informed CRS partners want to have more control on the finances for procurement of materials for the valley dam but CRS explains this as their role although they have shown a reasonable degree of flexibility based on the cash burn rate of the partner. These issues will be discussed more fully in the implementation issues section of the report.

3.3 Intermediate Result 1.3: Increased crop productivity and profitability for 20,000 farm families by 2006.

Intermediate Result 1.3 focuses on increased crop productivity and profitability for 20,000 farm families by 2006. It aims at increased dissemination and adoption of the new technologies in agriculture that will enhance the productivity and profitability, establishment of marketing association to facilitate the marketing of farmers produce in order to increase their income. The baseline data, cumulative targets and results achieved for the various performance indicators under intermediate result 1.3 are presented in Table 6.

Table 6: Cumulative mid term performance indicator for IR 1.3.

Performance Indicator	Baseline	Cumulative	
		TARGET FY-02-04	RESULTS 04
Percent of all trained (cumulative) applying at least 3 improved farming techniques	NA	20%	21%
Number of farmers' marketing Association established	NA	30	26
Percent of women Association members	NA	40%	65.8%
Percent of Association members in attendance at meeting, average	NA	70%	72%

The findings of the evaluation confirm findings of a previous survey that established at least over 20% of the program farmers' practice 3 improved techniques [including the cultivation of improved varieties]. Whether a farmer has adopted one or more improved varieties it was considered as one technology.

3.3.1 Conduct on-farm and farmer-managed trials and demonstrations of promising varieties of improved traditional Acholi crops.

Farmers have been given improved germplasm of sweet potatoes, cassava, sorghum, maize, groundnuts, finger millet, sesame, and beans for testing, evaluation and further multiplication.

A list of crop varieties that farmers indicated to have received from the DAP staff, evaluated and preferred are presented in Table 7.

While production seems to be the main selection criteria, farmers' preferences are highly variable. For crops with high market value, characteristics related to their marketability are important, for example, high oil content of sesame, buyer preference for groundnut varieties. While for home consumption, ease of cooking, taste, and early maturity are important characteristics.

Table 7: Crop varieties introduced and tested in the DAP

Crop	Varieties evaluated	Preferred variety
Groundnuts	Igola 1, Seranut 1R, Seranut 2 (Igola 2), Seranut 4 (ICGV 12991), Red Beauty, ICGV 12998	Red beauty and Serenut 4 (ICGV 12991)
Cassava	Akena, SS4, Omongole, TME 14, TME 4, TME12, O414	All varieties except SS4
Maize	Longe 1, Longe 2, Longe 4, Long 5, Pan67	Longe 1 as is the most common
Finger Millet	Seremi 1, Seremi 2, Pese 1	Seremi 2 and Pese 1
Sesame	Sesemi 1, Sesemi 2, Adong	Sesemi 2
Beans	K131, K132, K20	K132
Sweet Potato	Tanzania, Kakamega (SPK 004), Naspot 1, Naspot 2, Naspot 3, Naspot 4, Naspot 5,	Naspot 1 and Kakamega
Sorghum	Serena, Epuripur, Sekedo	Farmers prefer the local long maturing variety "Kabi"

The TAC farmers and the Field Extension supervisors collect information on crop production on plots when the crop reaches maturity. Despite this, there has been no systematic feedback to the research organizations, which have provided the germplasm, with exception to IITA. Research organizations depend on NGOs and other field level development agents to provide information on varietal performance and adaptability, as well as farmers preferences, since the research system doesn't have the resources to conduct adaptive research in all agro-ecological zones. However, the research organizations did not have a clear mechanism and agreement to establish the linkages, instead it is left for organizations like CRS to take their own initiative to provide feedback.

Since the number of sites visited during the evaluation was limited, it is difficult to determine if the varietal evaluation was conducted properly. At one "demonstration field", new varieties of sesame were being planted using improved cropping practices but since no local variety was included, this field lost any evaluation potential that it had. The methods used for the varietal evaluation need to be reviewed and refresher training conducted for the TAC farmers and even the Field Extension workers.

The evaluation revealed that 87.2% of the farmers interviewed preferred groundnut varieties (red beauty and ICGV 12991), 55.3% preferred cassava varieties, sesame was 40.4%, beans was 38.3%, maize was 29.8%, finger millet was 23.4%, sweet potatoes was 4.3% and sorghum was 2.1% (Figure 2).

Farmers gave importance of criteria to justify their preference of the different crop varieties. The list consists of high yielding, more resistant and/or tolerant to pests and diseases, early

maturing, fetch good market price, preferred taste and texture, high oil content and doesn't shatter [sesame] easy to cook etc. Criteria given for cash crops and home consumption varied. The improved cassava varieties disseminated by the program have market for cuttings and tubers.

Figure 2: Proportions of the farmers who prefered the tested crop varieties

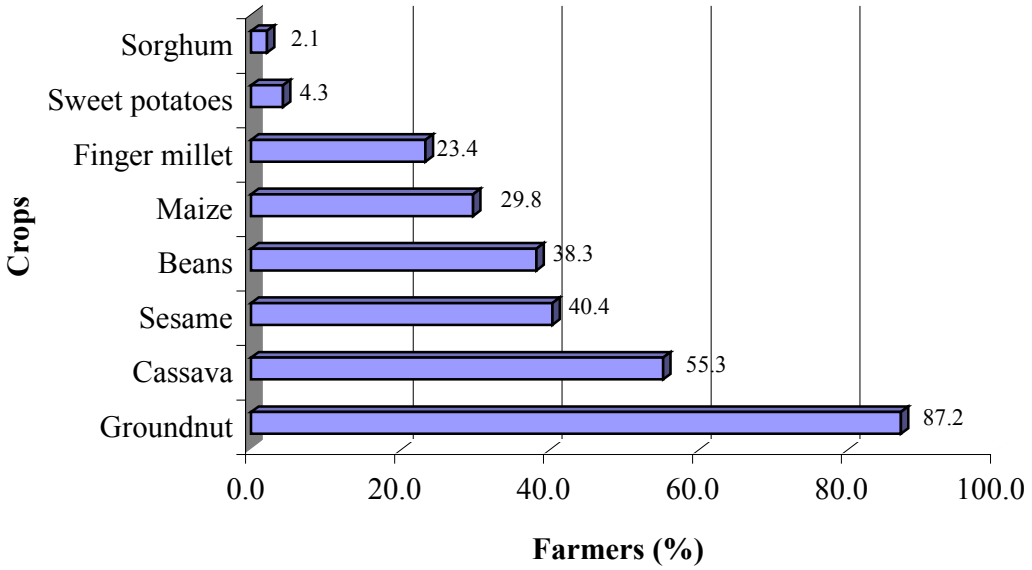


Figure 2

3.3.2 Transfer knowledge and skills in modern farming techniques through demo and field days.

The transfer of agricultural knowledge and skills to farmers under the program was done using a number of methods as shown in the figure below. The study revealed that 72.4% of the farmers found practical training in farmers' field the most helpful method of transferring knowledge and skills; this was followed by use of demonstration plots at 63.8%, others (farmer to farmer field visit, home visit, group discussion) at 14.9%, classroom lectures at 2.1% and study tours at 2.1% (Figure 3).

From the study it was apparent that farmers' groups received both theoretical and practical training in improved crop management skills. The theoretical training was conducted as either discussion under trees or classroom training. The practical training was done most often on the group demonstration plots and in farmers' fields. The training was conducted following the cropping season to cater for the relevance and immediacy of the knowledge to the farmers' situation since they learn by doing and seeing.

Farmers preferred the practical training using demonstration plots and farmers' field because of the following reasons: the methods are easy to understand and enhance learning, it is practical as it enables participates to have hands on experience, easy to remember and practice, farmers can make on spot corrections and see the results by themselves. It helped

them to remember the skills they had learned and they actively participate in the demonstration activities in order to see the results. The program should put more emphasis and focus on enhancing effectiveness on transfer of agricultural technologies to small-scale producers and influencing attitude change positively. It is essential that CRS emphasize on a market-driven hands-on, small-scale-farmer-oriented, learn-by-doing approach to technology transfer. The aim of the technology transfer component is to increase production and productivity through the use of improved inputs and technologies.

Figure 3: The proportion of farmers that prefered the various methods of training

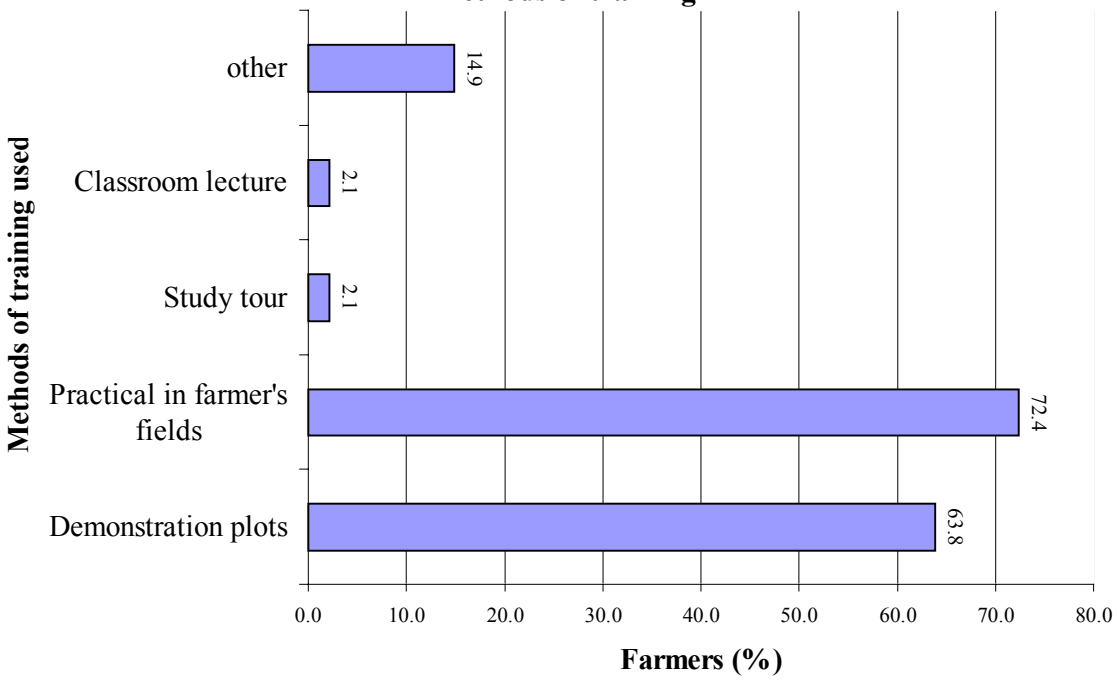


Figure 3

Although the project emphasizes on appropriate technology during the evaluation, several problems were observed in the installation of the demonstration sites. These will be discussed at more length in the implementation issues section.

In the first two years of the project, field days have not been organized because of insecurity. Rather, the groups being trained have visited the demonstration sites regularly during the season. The DAP team hopes that in the future, field days can be organized as originally planned.

For some of the Gulu District farmers, the DAP staff organized visits to the NARO research station and to farmers' groups producing specialized crops such as fruits, vanilla etc. These visits were greatly appreciated and farmers are interested in strengthening their marketing and production skills to do similar to what they had been exposed to. Unfortunately, farmers in Kitgum District have been unable to participate in these excursions. Flying a group of farmers and Field Extension Supervisors to Gulu where they could join the Gulu farmers in the field visits is too costly. However, the project is exploring ways of using audio-visuals to increase exposure of farmers to successes elsewhere. As security improves and the road becomes passable, emphasis should be placed on organizing exchange visits for the Kitgum farmers, at least to Gulu, so that they can be motivated by the experiences of others.

3.3.3 Establish progressive marketing associations

The DAP team has identified and established 26 marketing associations in 6 sub-counties of the Gulu District. These associations are located in very productive agricultural zones [criteria given under section 1-e], which have been relatively stable. Most of the associations have been DAP collaborators as well as participants in previous CRS agricultural activities in the region so that they have received more than just the two years of DAP support. They are very experienced and have attained a certain level of skill.

The establishment of 26 marking associations in FY04 represents 86% of the annual target set for FY04. Establishing an association for marketing does not mean it is functional. This will require much more technical support than the DAP project can provide unless it sub-contracts a significant part of the work to other organizations or establishes effective working relationships as they did with CARE international to train the extension staff on rural micro-credit schemes and leadership skills. The life of project target is unrealistic given the current stage of organization of these associations. There are some serious issues related to the implementation of this component, which will be discussed at length in the section related to project implementation. This whole component needs to be reviewed and strengthened or perhaps reoriented.

The evaluation has come to the conclusion that although the agriculture potential of the selected locations is high and can reasonably respond to adequately structured market interventions, CRS partners geographic expansion should be more carefully planned to avoid spreading resources and support thinly across too many locations, because CRS has only two marketing staff and may find it difficult to consolidate the established production and marketing schemes with the registered groups.

3.3.3.1Profitability analysis for the major crop enterprises

Tracking profitability can be complex, if all factors influencing profitability at farming household level are taken in to account. However, the baseline has in a way defined a simple way of analyzing profit. Volume of sale by crop is taken and compared to the baseline figure to determine progress. The major determinant factor is production and it is assumed that increase in production translates into increased profit if the produce is sold.

It was established that 91% farmers interviewed realized an increase in the sale of crop produce as compared to the sales in 2001 before the inception of the project (Figure 4). The increase was attributed to the improved technologies that they acquired during the course of DAP implementation. The technologies include improved crop varieties of cassava, groundnuts, beans, sesame, finger millet as shown in Table 7 above. Farmers started planting crops that have competitive advantage in the market place and the District Agricultural Offices and NGOs in Districts of Gulu, Kitgum and Pader have identified many program farmers, as potential source of improved crop germplasm. The District Agricultural Offices in the three districts have been buying cassava cuttings of improved varieties, serenut 4 (ICGV 12991) variety of groundnuts and sesami 2 variety of sesame from the program farmers.
Gender segregated data could not be accessed from the folder of the consultant but more men have control on cash crops than women. However, the conflict situation has introduced positive changes in the household dynamics as far as marketing is concerned.

Figure 4: Proportion of farmers who reported change in the sale of production

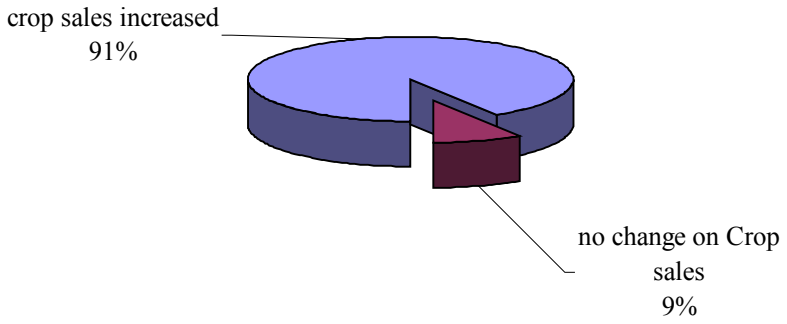


Figure 4

There are more women vendors in every market and most of the produce buyers in Gulu and Kitgum have been identified as women. It is important that the program emphasizes on strengthening women to be part of the decision-making on crops to be grown in their farms and endeavor to increase their control over cash crops. As input and labor investment varies by crop so does marketability and profitability. Farmers make their decision on what to grow based on the priorities of the household but decisions are taken with little involvement of the women when it comes to cash crops.

Table 8: Proportion of farmers who grew the different crops and the proportion acreage occupied

Crop enterprise	*Proportion of farmers (%)*	*Proportion of acreage (%)*
Ground nuts	*30.7*	*30.6*
Beans	*22.4*	*19.6*
Maize	*17.6*	*18.2*
Finger millet	*17.5*	*16.6*
Sesame	*10.4*	*11.1*
Rice	*1.2*	*2.0*

Rice represented the lowest proportion of farmers growing it. Similarly, it took the lowest share of crop acreage. Rice scored less than 5% reporting for both number of farmers and proportion of land acreage occupied. Groundnuts came out as the most preferred crop followed by beans. Groundnut is part of the staple dish and a good cash crop in northern Uganda. The number of farmers who grew finger millet and maize was almost the same though maize edged out millet as far as acreage is concerned. Given limited variation over the three project years as far as the proportion of farmers and acreage occupied by each crop, only detailed analysis of 2004 production year is presented (table 8).

Figure 5: Proportion of Farmers who Cultivated the different Crops

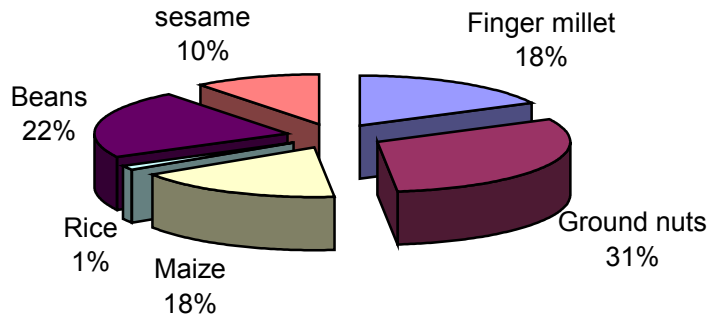


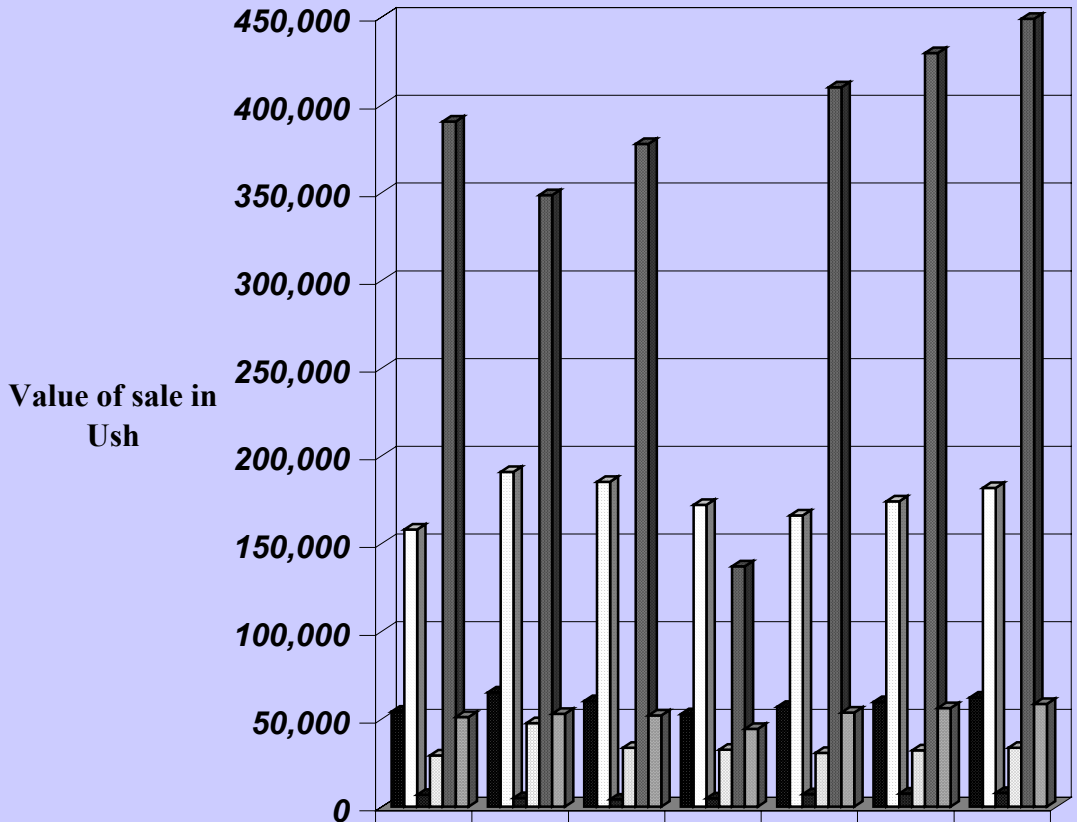
Figure 5

Profitability analysis was carried out to compare farmers' average profits using the achieved and target production levels. The analysis is based on volume of produce sold at a given market price minus the cost of production, under a situation where the farmer sells all what he/she has produced. The calculation made the assumption that factors of production and input cost remain constant. In addition the analysis did not take variation influenced due to technology adoption rate, for the various crops, in to consideration. A simple computation was used: total produce per crop per farmer multiplied by the market price per kilogram minus the cost of production (which was a constant) to arrive at the profit per crop. Trend in profit is determined by comparing the marginal differences to the baseline. The ultimate product therefore was the monetary value of the produce as reported in Table 2.

In this analysis profitability was correlated to production. Hence, overall the bar chart reflects increased profitability for all except rice. However, profitability was diminishing for all crops with progress from year one to three. In addition, profit achieved was lower than the target with exception of groundnut, maize and finger millet during the first two years of the program. The program has introduced high yielding and disease resistant groundnut variety that is liked by farmers. Highest profit is reported on groundnut followed by finger millet, maize and beans respectively, when the margins against the baseline are compared. It is important to note that the profit margins as far as rice production is concerned have remained negative due to the below baseline production levels at household level. Further inquiry reveals, there has not been a lot of effort on rice promotion in the program so far. Due to the high price per kilogram, rice fetches more money followed by groundnut. This analysis supports the findings of the market opportunity survey that established rice, groundnut and sesame as the best options for marketing in that order. But the program needs to do more on promoting appropriate rice varieties, at least with the marketing groups.

Sorghum is part of the staple food in Northern Uganda but only small acreage is dedicated for the crop because it has very low market viability. A limited potential exists for Epuripuri variety and it is promoted by a brewery enterprise in Jinga as a high market value crop. Therefore, growing a crop for only one market is not a good market practice besides the susceptibility of the crop to birds as a pest makes it unviable.

Figure 6: Profitability Chart achieved vs targeted by crop and year



	Baseline	2002	2003	2004	2002	2003	2004
Finger millet	54,202	65,119	60,168	52,806	56,868	59,661	62,327
Ground nuts	158,05	190,77	185,19	172,01	166,03	174,01	181,59
Sorghum	6,859	4,889	4,156	4,760	7,204	7,546	7,895
Maize	29,299	47,572	33,635	32,582	30,724	32,210	33,697
Rice	390,56	348,52	377,76	137,09	410,06	429,56	449,05
Beans	51,060	52,855	52,011	44,406	53,640	56,220	58,665

Figure 6

To help the reader interpret the profitability information Table-9 presents data from a farm household level. The average acreage of 2.55 acre and actual market prices have been used to provide a realistic computation of food and income at a household level. The farmer had access to only 2.55 acres [average established for program farmers] and cultivated a combination of three different crops in a season to fit the acreage: groundnut, beans and finger millet. The total cost of 26,800 Ush, was spent on seed. Usually, cassava and sweet

potato take at least 30% of the acreage at household level but root crops were not used to ease the computation.

Table 9: Farm income and food security for an average household

Seed type	Recommended seed rate in Kg / acre	Average yield per acre	Output per kg of seed	Kg seed planted	Expected output in kg	Price Per Kg	Market value of harvest (Ush)	Acres required
Groundnut	32 kg/acre	1200 kg	37.5 kg	15	562.5	1500	843,750	0.5
Beans	33 kg/acre	800 kg	24 kg	3	72	900	64,800	0.75
Finger millet	3 kg/acre	1200 kg	400	4	1600	400	640,000	1.3
Total					**2,160**		**1,548,550**	**2.55**
	A	B	B/A	C	C*(B/A)	D	D*(C*B/A)	

With sufficient rain and minimal pest or disease attack a farmer would be able to earn a cumulative harvest of 2,160 Kg of food. The total harvest gives sufficient food to feed a family of 5 members for a year with entitlement of 1.18 kg per person per day to provide slightly over 3900 Kcal of energy [note a 100% WFP ration is intended to provide 2,100 Kcal per person per day]. However, majority of the IDP farmers can only access land between 1.5 to 2 acres. Unlike in Gulu where farmers are able to harvest twice, the second planting in Kitgum and Pader is not a reliable option. Even in Gulu the second planting is not as intensive as the first.

Hence, the support in agriculture has enabled many families to cope with the difficult situation better and most of the DAP participant farmers were able to support their children in school, expand their asset base buying bicycles for transport, radio, few animals etc. Despite, increased income and improved food security situation among most of the program farmers, food security situation in Northern Uganda remains as fragile as the peace process.

The study revealed that 80.4% of the farmers interviewed spend the proceeds from the sale of crops on paying school fees, 47.8% of farmers on buying clothes, and 43.5% of the farmers on livestock (Figure 7).

The proportion of farmers who spend their proceeds on food was 23.9%. The majority of farmers reported getting food from their gardens to supplement relief food from World Food Program. In season A, a lot of sweet potatoes were reported to have been highly produced and sold at the household level while in season B, it was cassava which was highly produced (Figure 8)

In analysis, the bulk of agricultural income is used for: paying school fees, buying clothes, restocking and medical expenses in order of importance respectively. On average a household can incur an expense of over 400,000 Ush per year on school fees if they have two children in post primary education. Restocking is asset building and gradually strengthens the farming households to diversify their sources of income and food. Inducing pro-poor diversification requires an improvement in the access of small producers to information, markets, and institutions providing inputs and skills.

Figure 7: The Percentage of household that spend money on each of the following items

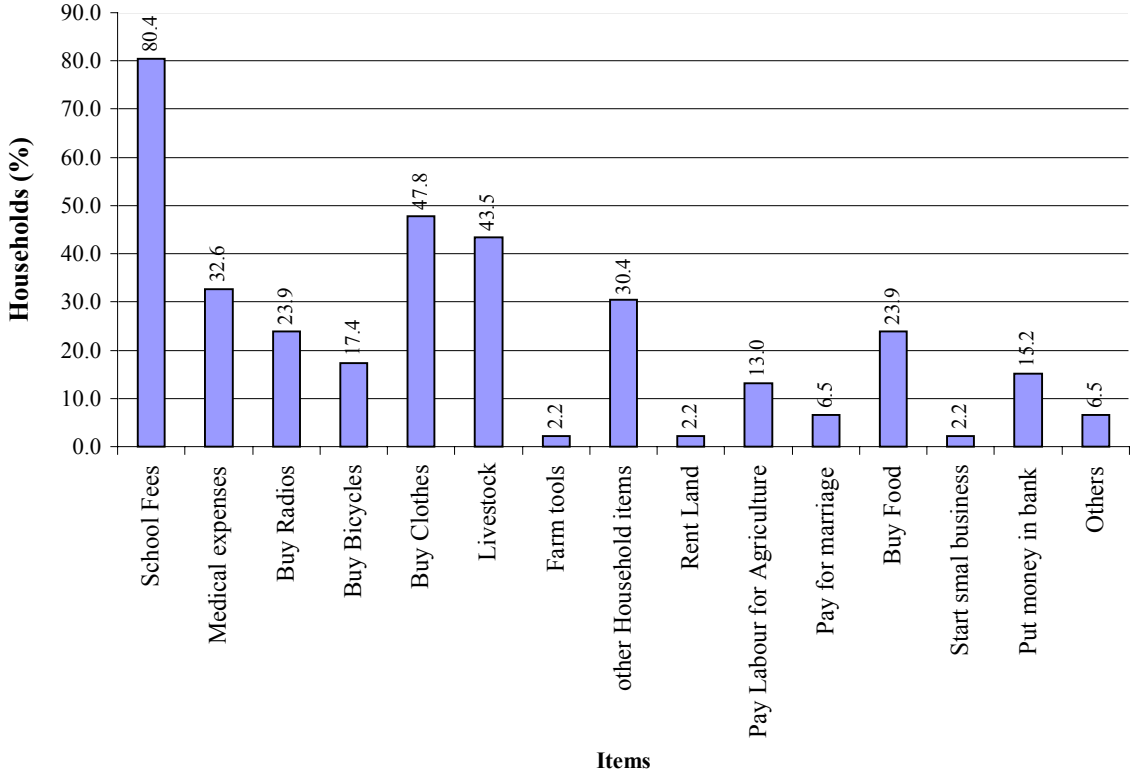


Figure 7

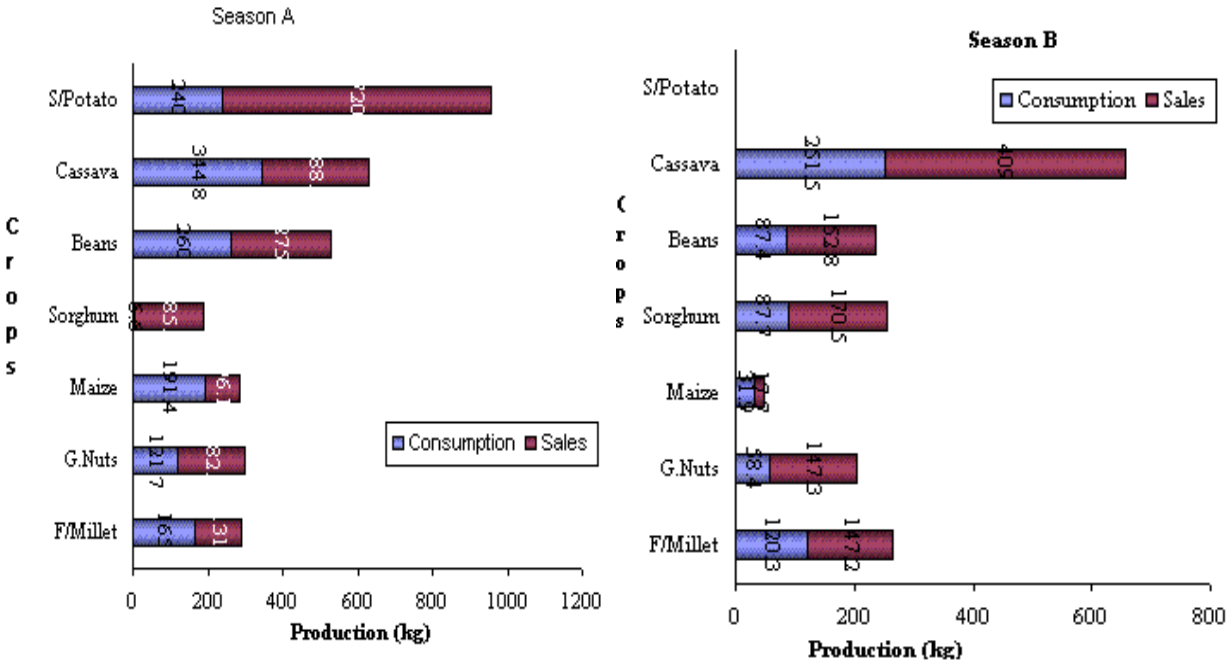
For many farmers, the profitability of traditional crops has fallen, while the profitability of nontraditional crops has remained more favorable, especially when farm production is accompanied by value-added activities. This change in relative profitability, needs to be explored in the project, especially with the marketing associations located closer to the municipality of Gulu.

The sweet potatoes are mainly grown in the first season and sold to the people within the camps to supplement their relief food from WFP. The sweet potatoes mature 2 to 4 months depending and can be harvested piece meal over a long period of time. This provides households with source of income for the period that piece meal harvesting is done.

Analysis of the sources of income indicates good diversification at the farmers level. Diversification means more than adjusting to the existing environmental context; it also means establishing the flexibility and capacity to continually adapt products and the process of production to continuously evolving circumstances. Diversification in northern Uganda, however, was mainly driven by the insecurity. Cassava and sweet potato are not tracked in the project but the program has done extensive support on the two tuber crops.

The majority of cassava is planted in the first season and harvested in the second season. It a staple food for the region as it is eaten and sold as fresh tuber, sold as dry chips or flour, which is used for making alcohol, brew and eat in mixture with finger millet and sorghum flour. Therefore, tuber crops are among the major sources of income in both seasons.

Figure 8: Utilization of household production in the two seasons



The DAP team has completed a Market Opportunities Identification Study in the Gulu

3.3.4 Conduct market analyses and information campaigns.

The DAP team has completed a Market Opportunities Identification Study in the Gulu District. The study identified potential crops that could be promoted both for the local and regional markets. As a result of this study, farmers identified three best options that they would like to produce for market: rice, sesame, and groundnuts. The DAP team is currently completing the sub-sector analysis of these commodities.

In addition, market information is being collected to provide farmers timely information needed to make rational marketing decisions. Arrangements for closer collaboration has been discussed with World Vision since they also collect market information, which is sent to the Market Information System supported by IITA for broadcast over radio and in print media. It is essential that better coordination between organizations on the ground is ascertained to avoid duplication of effort and that farmers have the best and widest range of information possible.

Targeting and channeling of resources as well as training should be more focused to make appropriate selection of enterprises—especially to smallholder farmers cultivating in less favorable areas and landless poor people. The initial steps taken are appropriate but the diversification process requires serious consideration on flexibility of the program to support a variety of commodities by collaborating with other stakeholders. Hence, there is need to identifying more specific opportunities, including vegetable production. This improves the overall competitiveness of agriculture both in the local, and national markets.

4.0 ASSESSMENT OF PROJECT IMPLEMENTATION ISSUES:

The evaluation assessed the implementation strategies that are being employed in the program for the various components of the program. This section provides insights in what strategy is driving the project in the right direction and how best to keep the project moving in the right direction as planned. The assessment under this section focused on production, farmers' groups, marketing, and valley dam rehabilitation strategies.

4.1 Production:

The principal targets as established in the original project performance-tracking table have for the most part been met or surpassed. The demonstration sites are in place, the seed multiplication has been done and seed has been made available either through the actions of the individual groups or through the CRS seed fair interventions.

The cost of training in the production component has been higher than anticipated because the TAC farmers have been brought into a central, safe location for training, which has entailed lodging, and transportation costs. It is hoped that as security improves, more on-site training will be less expensive and permit more farmers to benefit from DAP activities.

There seemed to be no major issue with the acquisition of seed nor of its expedition to project sites although several farmers interviewed for the formal survey indicated that more timely delivery of seed is needed. Each of the partner organizations has been responsible for the conditioning and storage of seed harvested from their multiplication plots. In several cases, the seed multiplication was lost due to drought and theft by rebels. But in general, there have been few major problems with this component.

A major issue in project implementation of activities related to the production component has been technical backstopping at both the level of the Partner organizations (CRS assistance to the Partner) and at the farmer group level (Partner organization assistance to farmers). Gulu participants, both those of Caritas and the Church of Uganda) have been better served because of the close proximity of the organizations to the CRS Northern Uganda office and the relative security in much of the area. CRS staffs have had more direct contact with farmers as well as with the technical staff of the Partners. The Partner staff has been able to visit farmers' groups regularly despite the fact that they all reside in Gulu town.

In Kitgum, the situation is somewhat different because despite the distance, all monitoring missions by CRS staff have to be done by plane. This means that without technical staff in Kitgum, CRS staff from Gulu visit only once a month or less. It is unclear also, that there is enough supervision of field staff by the Caritas management team. The one demonstration site, which was visited, was not well laid out. Whether this was the exception or the rule, is not known. It is interesting to note, however, that three field sites were visited during the evaluation mission: two in Gulu and one in Kitgum. Of the three, two had problems, both of which were Caritas sites. Since successful implementation of the DAP depends on the technical skills of the Partners, it is important that CRS assist the Partners to select and train qualified technical staff**.** Lack of critical staff due to high turn over, and sometimes-

overwhelming documentation requirements are completely incompatible with the low level of staffing of the program both at partner and CRS level. Some management decisions to readjust the program are necessary in order to increase impact of the program.

There is no doubt that the field staffs of both Partner organizations are dedicated and that they work under difficult conditions. It is also true that as they gain experience, they are often lured to more lucrative positions with other organizations. There is stiff competition in Northern Uganda for qualified agricultural technicians and all three organizations, CRS, COU, and Caritas have lost some of their top technical staff to others. It almost seems that the three organizations have become the training ground for agricultural development projects. Since other organizations offer better salaries and benefit packages, it is very tempting for the technical staff to move on after gaining field experience in the DAP.

CRS is in the process of reviewing its salary scale. Caritas and COU have been undergoing reviews and reorganization of their development departments. Staff motivation and retention is an issue, which needs to be addressed more concretely in the future**.**

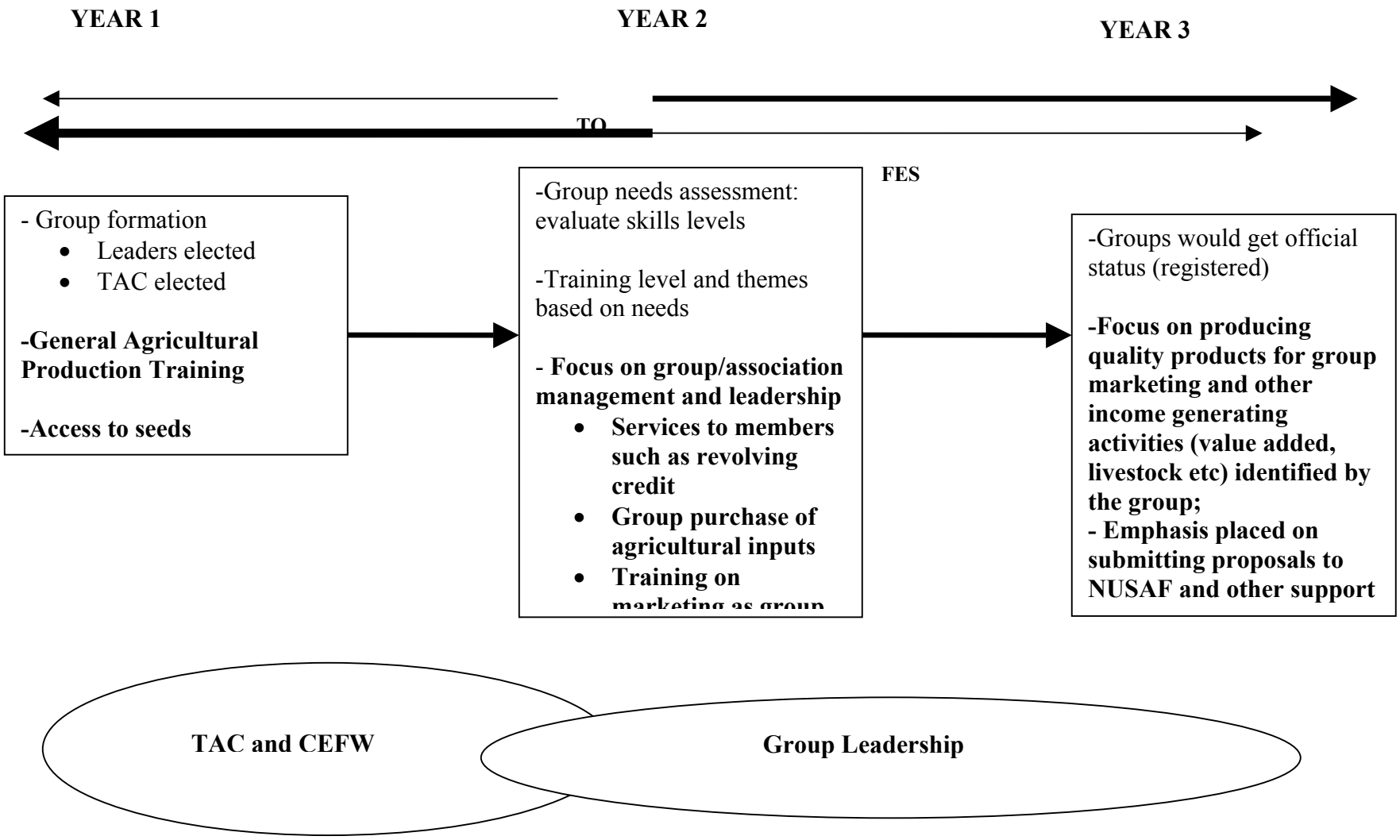
4.2 Farmers' Groups

The strategy of working through groups has been very effective. Farmer group participants have indicated that they are able to share experiences among themselves and they have better access to services because of participation in-group activities.

Currently, the DAP strategy is to work with groups for two years so that there are no more than 400 groups receiving DAP support at any one time. There are already DAP groups that have "graduated" from the program. Despite graduation, they have stayed working together. Some have formalized their associations by drafting statutes and getting official recognition by the government. Other NGOs and government programs such as CARE, NAADS, have approached some of the groups and they have submitted proposals for funding to NAADS. One in particular has been asked by other nascent farmers' groups for assistance and it has developed a program for war orphans. These groups were supported technically for several years by CRS programs prior to the DAP indicating that it takes more than two years to reach a certain level of maturity. Obviously, this will depend a lot on the group membership, on whether or not there are several dynamic people who can keep the group mobilized and motivated.

During the evaluation, discussions were held with some of these group representatives. When asked what would be the optimum amount of time that a group needs support, estimates varied from three to five years. Based on these discussions and discussions with CRS and Partner organization staff, a strategy based on 3 years of support is proposed as below in (Fig 9).

Figure 8: Proposed strategy for working with DAP farmers



It is based on:

- Group formation and general crop management training in the first year;

- In the second year, more focused interventions based on the needs of individual groups, for example, greater emphasis placed on group organization and operation for those which have higher technical skill levels and which show an interest in evolving into a more formalized structures with technical training on themes identified by the group; technical training to reinforce certain themes which haven't been mastered for those groups which need more time and support technically;

- In the final year, less technical support but more assistance in networking, establishing linkages for marketing and attaining skills in this area and related areas.

By increasing the number of years that the program works with the groups, they will have higher skill levels at "graduation" and will be able to access other resources or mobilize their own resources to continue their activities. This provides for more sustainable action and a phase out strategy for CRS and the Partners.

If this approach is adopted (or something similar increasing the number of years of interaction), it will have an impact on overall project targets. The overall number of farmer groups to be formed will be reduced to 750. No new groups will be registered in the last year of the project. The number of households benefiting from project activities will be reduced to 15,000 (20 members per group).

The roles and responsibilities of the major actors (Field Extension Worker, Technical Officer, Technical Adoption Committee members, DAP Coordinators and Managers, and CRS technical staff) will need to be reviewed. Decisions will need to be made about the skills levels of the FEW, and the TO, particularly in their ability to facilitate group evolution. Are other skills needed? Could these be contracted from other organizations? Do the Partner Organizations want to build their own capacity to be able to work more broadly with groups in the future? In Figure 1, a proposal is made indicating the relative responsibility along the three-year continuum is proposed. According to this diagram, the Technical Officer of the Partner Organizations would become more involved with the groups as they evolved to formal structures. Is this realistic or is there another way to advance the strategy?

Regardless of the final strategy to be adopted, the DAP team is encouraged to continue supporting the groups through the third year so that the skills acquired are internalized by the groups and individual members so that as the farmers return home, they will be able to implement what they've learned.

4.3 Marketing

The marketing component of the CRS/Uganda DAP was designed to be integrated into the program after two years of farmer training in improved crop management techniques. It was assumed that crop production would have increased to a level that would warrant this type of

intervention. According to the project document, the marketing component would be based on the agro enterprise development approach being promoted by two of the regionally based International Agricultural Research Centers, IITA and CIAT. CRS East Africa has established a Learning Alliance with these two institutions so that all CRS programs in the region can benefit from training and technical backstopping in agro enterprise development. This approach is based on the premises that farmers' inability to market produce means lack of income for production inputs, consumer goods and immediate cash requirements, hence prevents asset accumulation. Therefore, it highlights market access as a key propeller to influence farmers' production systems: those who have better market information, more frequent and direct contact with the market produce more systematically for the market, while those with poor market access are usually forced to produce for domestic consumption a situation that has perpetuated subsistence farming leaving rural families vulnerable for the slightest shocks due to periodic droughts, wars, crop pest and diseases etc.

The approach is noble but CRS did not have a clear understanding and strategy at the design stage. This is evident in the original DAP document which was very general about participation in the Learning Alliance and how the agro-enterprise development approach would be implemented in Northern Uganda. Thus the performance indicator targets for the marketing activities do not seem to have been identified based on a clear understanding of the marketing approach adopted.

The approach adopted involves extensive market opportunity identification surveys and a series of studies and close engagement of the farmers, yet the staffing of the project was not prepared for the volume and intensity of the work. In year two, the CRS DAP team has been reinforced by the recruitment of a Marketing Officer followed by subsequent recruitment (several months ago) of an Assistant Marketing Officer who is a specialist in microfinance. Both the Northern Area manager and Marketing Officer have participated in Learning Alliance training and they have made good efforts to implement activities associated with the agro-enterprise development approach: organization of an interest group, conducting a Market Opportunities Identification (MOI) study, and the follow up market chain analysis of the selected commodities (sesame, rice, groundnuts) which were selected by farmers when the results of the MOI were presented to them.

Initially, the project-marketing officer handled most of the work as he learned on the new approach. When the marketing component was introduced, the CRS Partner organizations thought it was a new project. Workshops were facilitated and meetings held to clarify the situation. Despite the fact that the CRS DAP team recruited a Marketing Officer and an Assistant Marketing Officer to implement the marketing component, a parallel structure was not adopted by the partner organizations (Caritas and Church of Uganda) apparently because of budgetary constraints and original strategy which has an inclination towards strengthening the linkages between production and marketing components of the DAP. The Partners feel to some extent that since they are implementing DAP activities in the field, they should be able to hire additional staff with the experience needed for the job. CRS has sent several Partner staff for training and has been collaborating with NGOs such as CARE which have more skills related to group financial management (e.g. group savings and credit) in order to compensate for the lack of experience within the implementing agencies.

To date, twenty-six marketing associations have been identified and established in six sub-counties of Gulu District. Most of these were existing DAP farmer groups which had received assistance from previous CRS agricultural programs, such as the Food Production Scheme, as well as from the DAP. They were selected not only for their interest in marketing their surplus produce but also because they are in very productive areas, which have been relatively stable. According to the IITA technical assistance team, twenty-six associations are too many for the geographical region in question. The DAP marketing staff recognize this and they assume that many will merge so that ultimately there will be one per sub-county.

Another USAID project is promoting marketing of oil seed crops and rice in Northern Uganda. Previously there had been little collaboration between CRS and the predecessor to the APEP project because their geographical zones of action were not the same. With the arrival of APEP, there is the potential for closer collaboration, which CRS has already initiated. APEP is providing support to associations that are interested in marketing their produce. They are providing technical training and facilitating linkages to markets and the private sector. This approach is not any different from that of IITA in that there is more group capacity building so that the associations will not only be able to increase production and marketing but will be able to provide other services to members. The issue of capacity to provide effective capacity building and skills training to all the groups needs to be addressed by allocating appropriate budget either for adequate staffing or contracting the services. The agro-enterprise approach is a more holistic and professional approach to agricultural marketing and CRS is still learning by doing. The focus is on small groups aiming at improving their capacity to: form strong groups, establish capable leadership and have some sort of saving and credit scheme but it needs to be strengthened. In addition, training of farmer groups should be stepped up, so that farmers can be able to utilize market information to make right decisions on what to grow when and what to sell where and when etc. The importance of strengthening the linkages with APEP and other stakeholders is of great importance in order to benefit from synergy and enhance the learning as well as exchange of information so that CRS can harmonize its efforts with others to forge a united approach.

The two approaches to marketing (IITA and APEP) represent two similar approaches to organizing and implementing the marketing component of the project. More discussions with the APEP staff need to be undertaken so that the DAP staff can effectively evaluate useful lessons from the APEP program to compliment the program. It is clear from the evaluation that the establishment of 100 marketing associations as the LOA target is unrealistic. During discussion with the CRS marketing staff and the Partner organizations, a reduced target of 40 was proposed, one for each sub-county. Even this is unrealistic given the experience level of the DAP field teams. It would be better to work only with the 26, which have been identified in order to get them established, officially recognized and functioning. These groups could be linked to markets through collaborative effort with the APEP project. The experience gained from this pilot effort could then provide the basis of future agricultural development initiatives.

Small farmers have certain advantages to integrate with the new supply chain as they can supply better quality output with intensive management attention to each output unit; however, they lack the size to benefit from economies of scale. The net effect of integrated markets on small farmers

depends upon the nature of a commodity and its market, as well as the ability of small farmers to coordinate marketing activities and work in groups. Therefore, capacity building on group dynamics and leadership to the marketing associations needs to be the corner stone of empowering them to enhance their competitiveness though groups work.

4.4 Valley Dam Rehabilitation

The valley dam component of the project was initiated two years later than planned because of insecurity. In order to catch up, the Kitgum District heavy machinery was used to accomplish the initial dredging and earth moving. While the machinery was considered to be a contribution of the district, CRS paid the operational costs. This resulted in a slight overspending of food and cash budget per dam. The District was still committed to maintaining its commitment to providing the machinery, at the time of the evaluation, despite a council resolution to rent the machinery as a moneymaking opportunity for the councilors.

If the current dam rehabilitation program is streamlined and the team benefits from the lessons learned, then the consensus is that within the Life of the Project, the actual number of dams that can be rehabilitated can increase to 9. This will reduce the overall number of communities, which will be affected to approximately 45. A community in this case represent a village, hence we are referring to villages/camp around the valley dam when we mention a community. It is likely to find between 5 to 8 villages around each valley dam site. Thus, if CRS rehabilitates 9 valley dams we could be targeting a minimum of about 45 communities or villages.

It is suggested that for the last year of the project, the possibility of rehabilitation of at least one dam in Pader District be considered since the initial studies have been completed. This suggestion recognizes that there will be budgetary implications for the transportation of equipment if the Pader District does not have any that they can contribute. Also, it may be problematic for the Kitgum District machinery to be deployed outside the district without some considerable cost to transport, service and repair the equipments.

4.6 Monitoring and Evaluation (M&E) of The Program

The study acknowledges that program has a good monitoring and evaluation system in place that involves the farmers' participation. The program has put farmers' structures to effectively participate in the implementation and monitoring of the program at the community levels. The program is implemented on the premises of groups with 20 members out of whom members select 4 farmers referred to as Technology Adoption Committee (TAC) members who assist in dissemination of technology and monitoring the performance of the group members and the project. The program also established the Community Extension Facilitates (CEF) to link farmers' groups to the project and monitor its performance in areas that are not readily accessible by the program staff.

The CRS also has developed an elaborate Monitoring and Evaluation plan, which is being reviewed prior to its implementation. It looks very comprehensive and will help systematize data collection efforts in the future. The plan emphasizes participatory monitoring and evaluation

of the program by all stakeholders. Information technology upgrades, staff training, computers and other technical needs, all require substantially increased support. Many of the unmet needs will improve the data management and monitoring of project progress more effectively.

Since project inception, Caritas and COU have been collecting large amounts of information on forms developed by CRS in collaboration with both organizations. Both the TAC farmers and the field extension workers are responsible for collecting the information and bringing it into the field offices where the data are input into excel worksheets. Both CRS and its partner organizations lack the skills and the experience to effectively manage the information in a manner that is easy to store, track, extract summaries and analyze regularly to make management decisions. Recognizing this problem, CRS is in the process of recruiting a data base person. It will be the responsibility of this person to establish data bases which can be linked so that technical staff can access specific information as needed, to assist in data analysis and report writing and to train both CRS and partner staff in simple methods of data analysis and data storage and retrieval.

Most of the information being collected is quantitative: acres planted by crop; production by season and by crop; numbers of people being trained disaggregated by sex; acres in seed production and amount harvested, etc. This information is needed to report on performance targets. It is also important to collect qualitative information. To date only one attempt has been made to collect qualitative data in systematic way but the data collected in February has not been analyzed by the time of this evaluation. Such information could help the DAP team determine whether the population has needs that are not being met (training themes, advice, etc) by the DAP interventions and whether or not the activities are effective and valued by the participants. This information could be used by the DAP staff to reorient their activities in order to better respond to farmers' needs or to facilitate linkages with other partners who can provide additional services to the groups.

5.0 MANAGEMENT AND CAPACITY ISSUES

CRS is very open to collaboration with other NGOs, both national and international, government research and development organizations, and the international agricultural research system. Implementation of the DAP requires a lot of technical skill on the part of both management and field personnel. CRS doesn't hesitate to call upon others with more experience to provide training and advice to farmers' groups on specialized themes. For example, CARE trained CRS, Partner staff and some farmers in group savings and credit; district and sub-county extension personnel have conducted training in specialized topics such as disease and pest control, soil and water conservation, and vegetable production.

Direct collaboration with NAADS has been quite limited because until recently, it was only active in Kitgum District. NAADS selects a small number of farm enterprises to support, three at most, and has organized training independently of that done by the DAP staff. Some members of the DAP farmers' groups in Kitgum have benefited from training in animal production. NAADS works through service providers some of which, according to the regional director of NAADS, have not been very competent. During discussions with the regional director, he suggested that perhaps NAADS could do more of the DAP training in the future. While coordination of activities at the field level needs to be discussed, it is unclear that the quality of the training would be improved by letting NAADS take responsibility for it (except for themes such as animal production in which CRS and its Partners don't have much experience). On the other hand, NAADS performance would be enhanced if the DAP staff; some of the TAC farmers, and individual members of the graduated farmers' groups became service providers for the crop management activities of NAADS.

CRS and its Partners receive improved germplasm from NARO and in some cases from IITA directly. The new varieties are evaluated by a small number of farmers. While information on production is collected, there has been little feedback provided to the research system. Both the international and national research systems do not have the resources to conduct adaptive research in all regions so they depend on organizations such as Caritas and Church of Uganda to facilitate the evaluation of new materials and techniques in the field. In order to refine the research agenda and provide adequate information for extension of the technologies, they need to receive feedback not only agronomic data but also farmers' preferences. More effort in this area needs to be made in the remaining period of DAP implementation.

CRS Uganda has the opportunity to participate in a regional agro-enterprise development because of the Learning Alliance that the CRS regional headquarters has established with IITA. CRS staff has participated in training so that they can implement the marketing component of the DAP. It appears that the technical assistants of the IITA program have regular contact with the CRS staff. The key question in the relationship is whether or not the agro-enterprise development approach being promoted by IITA can be implemented or at least advanced in the remaining two years of the project.

In the existing management system of the DAP, the CRS DAP manager is also the CRS Northern Area Manager. As Northern Area Manager, he represents CRS in the District, participates in

meetings related to relief and development organized by the government and other organizations, assists program personnel to solve problems and coordinates all activities of the office. While DAP management and administration responsibilities are shared with the agricultural officer and more recently with the marketing officer, the ultimate responsibility for decision-making rests with him. Since opening a CRS office in Kitgum, there have been a few technical problems since the agricultural representative left—no one would take major decisions in the absence of the DAP manager. For example, while the lists for food distribution for the valley dam rehabilitation had been approved, no one was able to negotiate with the World Food Program to provide the replacement rations needed for payment of the workers.

As CRS programming increases, the DAP manager will need to have effective technical and managerial support. The agricultural officer will need to take on a leading role to guide the planning and monitoring of production and marketing components of the program. Similarly, administrative responsibilities need to be handled by the administrative officer in collaboration with the team leader to reduce even further technical leadership and backstopping to the Partner organizations. CRS has recruited qualified person with a strong background in the water sector and a degree in agriculture.

Delays in data entry (input) and generation of key reports (output) on project progress from partners' causes a major bottleneck in CRS reporting to the donor. CRS has taken action to upgrade the data collection, analysis and storage system to enhance overall database management, and use of information. A replacement for the head of sub-office in Kitgum has been recruited and the person has a strong background in engineering and a degree in agriculture.

A database person is on board and CRS has restructured its management to strengthen the mid level for the production and marketing components to be under one unit while the valley dam is taken as a separate component by its own. Therefore, an agriculture team leader and a valley dam team leader are appointed to strengthen supervision and technical support so that the DAP manager has time for project budget tracking and program quality. The office presence of CRS in Kitgum and the recent countrywide upgrading of the agency communication system can be seen as essential steps towards strengthening on program implementation through better flow of information as well as technical and material support.

CRS Uganda and its Partners (Caritas and Church of Uganda) have developed a good working relationship that is not without some tensions. Fortunately, all those involved seem willing to openly discuss issues in order to find solutions which are acceptable to all parties. The good partnership can be attributed to the open and transparent communication approach CRS and its partners have adopted but more importantly to the clear understanding of a common objective the good working relationship.

6.0 CONCLUSION

The project (both agricultural and valley dam interventions) is meeting local needs and contributes to the Government of Uganda's strategic focus on poverty alleviation as articulated in the Poverty Eradication Action Plan (PEAP), the plan for the Modernization of Agriculture (PMA) and the Northern Uganda Reconstruction Program (NURP II). The DAP trains farmers in improved crop management techniques and provides better quality seeds of both traditional and new varieties of the main food crops. As production has increased, the DAP has expanded its operations to include an agro enterprise development component. In a region where Government agricultural extension services are either largely ineffective or even non existent, the DAP focus on improving general agricultural skills is an essential first step in increasing production for markets and providing professional support to agriculture.

The DAP works through farmers' groups which facilitates the provision of services and provides social support to a rural population which has been traumatized by years of conflict and instability. This has been particularly important to women who often have less access to the major factors of production (land, labor, capital). During the evaluation, farmers indicated that as part of a DAP group, they could pool labor to make field work easier and less time consuming; they could share experiences and learn from one another; and they receive moral support and encouragement from the group which has helped them confront the problems they encounter daily in the camp.

One of the principal problems of the rural population of Northern Uganda, particularly Kitgum and Pader, is access to water for human and livestock consumption during the dry season. Over the years, the rainfall regime has become increasingly erratic and the quantity of rainfall has decreased. During the dry season, boreholes dry up and women travel long distances to find water. Valley dams that used to reduce the vulnerability of communities from critical water shortages became useless to impound water due to silt, broken embankments and seepage related problems. The DAP project has a valley dam rehabilitation component, implemented in Kitgum District, which builds upon expertise developed in previous CRS-Partner interventions in Northern Uganda.

During discussions with participants working on the Akworo valley dam (who will also be benefiting from the water), they told us that residents from the neighboring villages and parishes must now travel up to two hours to collect water. This time will be reduced to less than half an hour when the dam work is complete. A local representative of the Kitgum District Public Works Department indicated that the valley dam interventions are of key interest to the local government and the population because valley dams provide water for multiple uses, including for livestock consumption, unlike other water interventions that only cater for safe drinking water to the population. Yet traditionally, the Acholi are agro-pastoralists who raise cattle and smaller ruminants while practicing rain fed crop production. Hence, livelihoods of the people in the drier parts of Kitgum and Pader, in particular, are incomplete without livestock.

The DAP was originally designed to provide a transition from relief to development at a time when it appeared that the camps could be decongested and people could return home. Since initiation of project activities, the political situation has remained fluid and the security situation

highly variable. For example, since the Ugandan Army's Operation Iron Fist in Dec 2002, insecurity has intensified in Northern Uganda affecting Gulu, Kitgum and Pader districts. It was after this that over 80% of the population in Gulu, Kitgum and Pader were obliged to move into camps in traditional trading centers and the DAP activities in Pader were suspended. However, the DAP design was flexible and the implementing team has been able to modify its strategy in order to continue to provide services to the project participants even under tightened security. For example, establishing field offices for the extension staff so that they reside closer to the camps has reduced unnecessary travel. Similarly, use of the Technology Adoption Committee [TAC] farmers to cascade extension training and technology dissemination within the groups, use of complementary radio program from a different grant to strengthen "Farmer Information Service" and opening of the Kitgum branch office by CRS were notable adjustments of the program. In addition, the recent selection of Community Farmer Extension Worker (CFEW) will improve data collection and transmission from the field to the Partner offices.

In the context of Northern Uganda, the current project design integrating relief and development is very compatible and seems to have worked well. While, on the one hand, the immediate food and seed needs of the population can be met through the relief aspects of the project, the development approach improves farmers' skills which they can apply when they return home. The civil strife has not been protracted fighting but rather a series of operations in which the rebels have launched hit and run attacks —killing and abducting civilians and then disappearing into the bush. By having both relief and development activities in the current DAP, the Partner field teams have been able to provide hope and support to the population to take more control of their lives.

In the DAP, providing seed has been done as both a relief and a development activity: seed fairs (relief) and evaluation of crop varieties and seed multiplication (development). Training within the DAP has focused on improving crop management at the farm level. During periods of relative stability, the rural population goes out to farm and continue their regular activities. The improved seeds and new skills acquired during the training have increased production for those farmer participants. This has enhanced household food security. Part of the production has been sold in order to pay school fees, medical expenses, to buy additional food and household items and other assets (bicycles, radios, etc). To a more limited extent, some farmers have been able to reinvest in agriculture to expand their production (land rental and paying for additional agricultural labor). In areas with relatively better security situation significant increase in production has been achieved. Hence, marketing and agro-enterprise development has been integrated as the third component of the DAP, which is clearly a development effort.

There seems to be more hope now than at any time in the past that peace will become a reality in Northern Uganda. Some Lord's Resistance Army (LRA) commanders and soldiers have been turning themselves in or have been captured. The religious leaders from both Sudan and Uganda have recently met and continue to exhort the Government and the rebels to resolve their differences peacefully. As security returns, there will need to be more development efforts focused on the region and on the farmers' groups in order to prepare them to return and quick recovery through productive activities in their home sub-counties. In the future, the relative mix of technical training, group formation and development, and marketing will need to be more attuned to the experience and skills of the different farmer groups but the DAP design and its

implementation by the technical staff of CRS and its Partners has demonstrated that it has the flexibility to respond to the development challenge ahead.

7.0 RECOMMENDATIONS

For the remainder of the projects, new production targets should be established. It would be more reasonable to achieve (and maintain) a 18% increase in crop production over five years. Figures for 15, 17, and 18% increases are presented in Annex B: Proposed tracking table. In addition, since the Project has been working more with Sesame (new varieties, training) than with rice, and there are more farmers who cultivate sesame than rice, in terms of tracking agricultural production, the DAP team should consider including sesame in the monitoring system. In addition more efforts need to be excreted on rice promotion with the marketing associations, since the crop has been identified as one of the three best options for market. Activities in rice promotion should expand to include germplasm evaluation and training to enhance production.

1. Modify the performance targets for:

   - Crop production (maximum 18% LOA);
   - Include sesame on the tracking table and establish baseline targets;
   - Number of farmer groups mobilized (register remaining groups in FY-05);
   - Number of valley dams (reduced from 15 to 9)
   - Number of marketing associations (reduced from 100 to 56 functional)

   These changes will require modifications in the IR1.2 target (number of communities with capacity for recovery would be reduced from 200 to 45); and in the IR1.3 target (the effective target of farm families benefiting from the marketing component would be reduced to 2,240 with the assumption that each marketing association has an average of 40 members).

2. The number of years that farmers groups would be associated with DAP activities should be increased from two to three. The relative importance of technical training compared to group capacity building would shift so that groups would be empowered to organize and plan both production and marketing activities in the future, which will make them more sustainable.

3. The database manager should be recruited as soon as possible. This person should also conduct data analysis training for partner staff so that they can make better use of the information that they've collected.

4. More emphasis should be placed on the development of management and maintenance plans by the communities benefiting from the valley dam rehabilitation component. Exchange visits to sites which have developed management strategies and which are implementing them should be organized in order to motivate the communities participating in DAP activities.

5. The DAP marketing strategy should be reviewed. The team should consider changing the LOA target from 100 to 56 to ensure that the associations become functional during the remaining project cycle. In addition, the performance indicators should be modified to include not only the number of associations marketing their produce but also the number of

associations bulking their production, the number of marketing contracts established, and the number of associations providing in puts and other services to their members.

6. The DAP team should provide more technical backstopping and supervision to the Field Extension Supervisors and TAC farmers in Kitgum District. With Pader coming on-line, supervisory activities will need to be extended to this District, too.

7. Refresher training for Partner field and management staff should be organized in technical areas, data analysis, and marketing.

8. The DAP staff should increase efforts to facilitate linkages of farmer groups to other organizations/projects for services that DAP cannot provide.

8.0 APPENDICES

Annex A: Mid-Term Evaluation SOW

Annex B: DAP Performance Tracking Table