

2010

Midterm Review Report



The Community Action, Nutrition and Livelihoods (CANAL) Program



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To the more than 20 communities who have taken time from their long, busy day to participate in the midterm review, it is our hope that the recommendations provided by the review team is used actively to develop and improve the program and policies that enhance their food security and livelihoods.

We appreciate that many people have labored long and hard in the CANAL program to make the program a success. We would also like to thank all of the people – professional staff, program participants, and other stakeholders, particularly the USAID Food for Peace Officer – who gave freely of their time to discuss the program performance, accompany the team in the field and share their ideas on the CANAL program.

Sincerely,

Binyoum Libam Adele Marie, Community Development Specialist
Habibata Koita, Micro Finance Specialist
Mohamed Lemine Diakite, MCHN Specialist
Arif Rashid, Team Leader, TANGO International Inc.



406 S. Fourth Ave.
Tucson, AZ 85701 USA
Tel: (1) 520-617-0977
Fax: (1) 520-617-0980
info@tangointernational.com

ACRONYMS

ACORD	Agency for Co-operation and Research in Development
AVA	Auxiliary Veterinary Assistant
BCC	Behavior Change Communication
CAE	Center for Medicine Supply and Breeding
CANAL	The Community Action, Nutrition and Livelihoods
CANA	Community Analysis and Needs Assessment
CAP	Community Action Plan
CECD-M	Caisse d'Epargne et de Crédit Djikké-Mutuelle
COP	Chief of Party
CPI	Counterpart International
CHW	Community Health Worker
CHF	Community Health Facilitator
CSA	Commissariat a la Sécurité Alimentaire/Food Security Commission
CSB	Corn Soy Blend
CTS	Commodity Tracking Specialist
CU	Coordination Unit
DRAS	Direction Regionale Action Sanitaire/ Department of Health
EPI	Expanded Program on Immunization
FFP	Food for Peace
FGD	Focus Group Discussion
GoM	Government of Mauritania
GMM	Les Grand Moulins de Mauritanie
GMP	Growth Monitoring and Promotion
HCA	Host Country Agreement
HRW	Hard Red Wheat
HQ	Head Quarters
IEE	Initial Environmental Examination
IGA	Income Generating Activity
IMCI	Integrated Management of Childhood Illness
IR	Intermediate Result
IPTT	Indicator Performance Tracking Table
KPC	Knowledge Practice and Coverage
LOA	Life of Program Activities
LQAS	Lot Quality Assurance Sampling
MCHN	Maternal Child Health and Nutrition
MDRE	Ministry of Rural Development and Environment
MTR	Midterm Review
M&E	Monitoring and Evaluation
MYAP	Multi Year Assistance Program
NCHS	National Center for Health Statistics
NGO	Non Government Organization
PART	Participatory Awareness Raising Training
SGTC	Societe Generale de Transit et de Consignation
SPAC	Societe de Prestations et Activites de Commerciales
SRW	Soft Red Wheat
TBA	Traditional Birth Attendant
WFP	World Food Programme
VDC	Village Development Committee

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1. Executive Summary

Counterpart International in Mauritania in collaboration with the Ministry of Health, the Agency for Co-operation and Research in Development (ACORD), and Caisse d'Epargne et de Crédit Djikké-Mutuelle (CECD-M) implements the Community Action, Nutrition and Livelihoods (CANAL) program. The aim of the program is to strengthen the resilience to food insecurity of vulnerable populations in targeted communities in Gorgol, Assaba, Guidimaka, and Hodh El Gharbi regions.

The program is composed of three components: (1) a maternal and child health and nutrition component that focuses on management of childhood illnesses, rehabilitating malnourished children, and providing health education to pregnant women and lactating mothers; (2) a livelihoods enhancement component that focuses on improving individual and household level capacities and increasing access to financial capital to prevent food insecurity shocks; and (3) a community development component that focuses on increasing community capacities to mitigate food insecurity shocks, increase agricultural production, increase livestock management capacities and develop institutional capacities of the communities.

The total program cost at approval was estimated to reach US\$ \$46,643,697 with 53,800 MT of commodities for monetization and 2,083 MT of commodities for distribution. The program budget includes \$26,376,064 as matching contribution from CPI. The CANAL program is currently scheduled to end in September 2011.

The program start-up was delayed by 10 months due to difficulty in obtaining the Host Country Agreement (HCA). In August 2008 a military coup was staged that took control of the government, and the political situation became unstable. Consequently, CPI was asked not to partner or work with government entities until a democratically elected government was in place. This slowed progress significantly, as the MCHN component was designed to be implemented through partnering with the Ministry of Health.

CPI commissioned a Mid Term Review of the CANAL program. A four member team conducted the review from the 12th to 30th March 2010. The team reviewed existing secondary sources of information and using qualitative survey methods, the evaluation team assessed (1) the quantity and quality of outputs produced, (2) the quality of the processes used in implementing the program, (3) the targeting of beneficiaries of program interventions, (4) the likely impact of the program during the life of the CANAL as well as the impact likely to be sustained after 2011, and (5) the effectiveness of program management, including cooperation with different national and local program partners. A number of special topics were also identified for closer investigation based on the interests of the program stakeholders.

The major findings from the review are outlined below.

- With the establishment of community-based IMCI, many childhood illnesses are now managed at the community level; hence the overall management of childhood illness has improved and the number of cases reported to the health centers has declined. This can be attributed to a change in access to local services. The CHWs are highly regarded and respected by the communities – even in those located in the most remote areas.
- The growth monitoring and promotion (GMP) component of the program is less successful because of the inadequate training, illiteracy of CHFs, and inadequate monitoring and supervision from head nurses and program staff. The anthropometric data collected and recorded are erroneous and the

data are not plotted on the growth charts to track progress. The growth charts printed by the program are not color-coded posing a challenge to the mothers without literacy skills to understand the chart. Moreover the CHF's do not discuss the causes of malnutrition with the mothers.

- The program refers all severely malnourished children in the target area to health posts or health centers. In addition the program provides an incentive ration to the caretaker to encourage the household to regularly take the child to the health post or health center. However the program does not track the severely malnourished children that are referred to the health posts, hence does not know the outcome of the treatment.
- It is evident that through distribution of vitamin A supplements to all children ages 6 to 59 months, de-worming medications to all children ages 12 to 59 months and clinic and community based IMCI, the program has been successfully addressing some of the major causes of morbidity and mortality in the target area. CANAL target communities have the highest vaccination coverage in the country.
- The health communication sessions were able to having changes in exclusive breast-feeding, and diarrhea management behavior and practices while they are less successful in changing hygiene behaviors, including hand washing and other personal hygiene, food hygiene and appropriate feeding practices.
- Students and teachers are using the latrine constructed at school. Loss of classroom time has decreased with the latrine in the school compound compared to before the latrines were constructed. The program assumes that the school latrine will encourage households to install latrines however the MTR team did not find many examples showing that communities are installing latrines at home. It is critical to discuss the benefits of the latrine in the classrooms and in the health communication sessions to raise awareness of the communities to change behaviors. In addition there has to be low cost latrine models available to promote latrines.
- The income generating activities provided by the project are having substantial impact. In addition to providing financial benefits to the participants many of these projects have been providing a great service to the villagers. For example before opening up the shop in Kow Malal Village in Foum-Gleita commune in Gorgol, the community had to travel approximately 15 to 20 km to Foum-Gleita or M' Bout to buy daily necessities. However the program is less successful in developing a functional management system for the IGAs which will increase the likelihood of the IGAs to continue to provide benefits after the program ends.
- The micro-credit component is making significant impact. All of the people who borrowed from the CANAL program have transformed the loan into an economic activity. With the help of the loan many households changed their living standards including better quality and quantity of diet, send children to a better school, better quality clothing, have bought animals, or repaired their houses. Some households built new homes. However the coverage of the program is still too low to demonstrate a measurable impact in the community. The loan size is too large, the term length is long, and the supervision is minimal which makes the micro credit system vulnerable to failure and may increase the risk of the borrowers.
- Training on cheese production has the potential to increase household protein consumption in the winter and even may increase earning opportunities of cheese producing households. However this intervention needs further development and the households need additional support to be productive.

- Not all of the Village Development Committees are active. Influential members in the community secured the key positions in the VDC, though there are more active, dynamic and literate members in the community who are willing to join. The CANAL program does not have a common vision about the VDCs and does not have a comprehensive strategy to strengthen VDCs.
- Community-driven processes implemented in the CANAL program need to be improved. There is a need for appropriate tools, improving facilitation skills of the CANAL staff, and developing a process through which people without literacy skills can participate and develop a plan by their own. Currently the community action plans are documented in French while many of the target villages do not have any French literate member.
- The program is successful in supporting construction of animal vaccinations parks, vegetable perimeters, cereal perimeters, barrage, dikes, wells and water points for animals. Many of these community development projects have greatly benefited the target communities. In the remaining life of the program, CANAL has to put in place systems and structures that will ensure the sustainability of impact.
- The vulnerability or food insecurity criteria have not been applied in targeting beneficiaries in the CANAL program. Anyone living in the target communities is eligible to receive program benefits. There is evidence that food secure households are also getting direct benefits from the program although the proportion of these households is fairly small. Significant numbers of women do participate in CANAL program activities, but the program does not specifically target women-headed households.
- Developing Auxiliary Veterinarian Assistants has had some impact in the community but not as much as it could. The program faced challenges in the selection of AVAs, as well as in developing skills of the AVAs through training, creating access to medication, and creating adequate financial incentives to keep AVAs motivated.
- Partnership with CECD-M is reasonably smooth while partnership with ACORD has been problematic. There has been misunderstanding between ACORD and CPI from the beginning of the implementation phase. Meanwhile none of the partners contribute their own resources to the program.
- Commodity management is reasonably good. There has not been a problem in monetization however cost recovery has been less than original projections. The inland losses are within the industry standard. The regional warehouses are well managed however some of the community warehouses are in poor condition. The record keeping system in community warehouses needs improvement. Currently there is no bin card and the warehouse keeper does not record the balance. The program does not monitor the use of food.
- Significant progress has been made in setting up a monitoring and evaluation system as evidenced by the different survey reports and monitoring reports produced by the program. However the M&E is yet to be functional and integrated with decision making processes. The CANAL IPTT is not a very useful tool and it does not have indicators for the full range of outputs and outcomes being produced by the program. Moreover, several targets in the IPTT appear to have been unreasonably ambitious as a result of having no reliable primary or secondary data on which to make more reasonable estimates. The program baseline results did not provide sufficiently reliable data or measure the correct indicators in order to compare results at a later date. Moreover, the sample was designed to be representative at the region level while the program is working only in some of the communes.

Based on these observations and discussions with stakeholders, priority recommendations have been formulated to provide guidance to the program toward maximizing sustainable impact over the remaining life of the program. These are shown below and described in more practical detail in the text. Given the time remaining in the CANAL program, the priority recommendations have purposely been limited in number to assist the program in working on those changes likely to have the greatest impact in enabling the CANAL program to achieve greater long-term impact of food insecurity. The evaluation team also identified a number of other recommendations that are described in the text of the report.

Recommendation 1: *Improve the quality and effectiveness of growth monitoring through re-organization of responsibilities, increased human resources and quality assurance strategies*

Recommendation 2: *Improve the quality and effectiveness of Health Communication sessions through improved facilitation skills of the CHF's and adequate use of appropriate BCC materials.*

Recommendation 3: *Increase the coverage of micro-finance through targeted small loans and re-adjustment of the loan period.*

Recommendation 4: *Strengthen management committees of the Income Generating Activities by providing necessary skills, tools and resources.*

Recommendation 5: *Develop a clear vision for the VDCs and provide targeted support to strengthen them.*

Recommendation 6: *To maximize the benefits of community development projects within the LOA, speed up the implementation with enhanced management and targeting strategies. If a one year extension is approved, it is recommended to implement some of the interventions by 2011 and implement projects in all of the project villages by 2010.*

Recommendation 7: *Continue to develop appropriate outcome indicators and efficient information gathering tools to obtain information about the quality of activities. This will enable the program to identify activities that are effective, activities that need to be modified, or activities that need to be suspended.*

Recommendation 8: *Improve the quality of partnership with CECD-M and ACORD and develop a mechanism to ensure the quality of activities.*

Recommendation 9: *The MTR team recommends revising indicators and targets in the IPTT. In addition, considering the baseline study results, the MTR recommends comparing the end line results with control areas instead of making pre/ post comparisons.*

Counterpart International has worked very hard implementing the CANAL Program to get to it where it is today, despite difficult operating circumstances, a rapidly changing context, and difficult logistical challenges. Overall, the program has demonstrated significant short term impact. However, much of the impact that has been achieved is at risk of not being sustained after the program ends, unless the program has an opportunity to plan and implement through one additional year. In this next period, which begins now with planning and software implementation, the CANAL program must make considerable effort to use the additional time effectively, adding software to complement hardware, addressing problem areas such as VDC and GMP, and implementing more development oriented approaches that cultivate self-resilience.

2. Introduction

Overview

The Community Action, Nutrition and Livelihoods (CANAL) program¹ implemented by Counterpart International (CPI) in Mauritania was officially approved in October 2006. The goal of the CANAL Program is *"to strengthen the resilience to food insecurity of vulnerable populations in targeted communities in Gorgol, Assaba, Guidimaka, and Hodh El Gharbi regions"*. The program has one specific objective with three intermediate results, as shown in Table 1.

The program is composed of three components: (1) a maternal and child health and nutrition component that focuses on management of childhood illnesses, rehabilitating malnourished children, and providing health education to pregnant women and lactating mothers; (2) a livelihoods enhancement component that focuses on improving individual and household level capacities and increasing access to financial capital to prevent food insecurity shocks; and (3) a community development component that focuses on increasing community capacities to mitigate food insecurity shocks, increase agricultural production, increase livestock management capacities and develop institutional capacities of the communities. The program is implemented by Counterpart International in Mauritania in collaboration with the Ministry of Health, the Agency for Co-operation and Research in Development (ACORD), and Caisse d'Épargne et de Crédit Djikké-Mutuelle (CECD-M).

This report summarizes the findings of a mid-term evaluation conducted over the period 12–31 March 2010. Four external consultants were commissioned to review the program to assess progress and formulate recommendations for the remaining period of the program. Annex 1 contains the Scope of Work for the evaluation. Staff from CPI and CECD-M provided support for the evaluation.

History

The Community Action, Nutrition and Livelihoods program was originally proposed with a start date of 1 October 2006. The initial grant approval without funding obligation was signed effective 1 November 2006. Obligation of 202e and ITSH funds occurred in January and July 2007. Implementation began in May 2008, with an expected completion date of September 2011. The first commodities for distribution arrived in December 2007. The first commodities for monetization arrived in June 2007. Table 2 lists key events in the life of CANAL.

A number of important events happened over the life of the program that have had a significant impact on implementation. First, program start-up was delayed by 10 months due to difficulty in obtaining the Host Country Agreement (HCA). In August 2008 a military coup was staged that took control of the government, and the political situation became unstable. Consequently, CPI was asked not to partner or work with government entities until a democratically elected government was in place. This slowed progress significantly, as the MCHN component was designed to be implemented through partnering with the Ministry of Health.

¹ In French, the term 'project' often refers to a small project. Hence CPI in Mauritania calls CANAL a 'program' instead of a 'project.' This report also uses the term 'program' when it refers to CANAL. This is primarily to be consistent to all other documents produced by CANAL and to make it relevant to the CANAL staff. However for readers external to CANAL, please note that CANAL in other contexts may be considered a 'project.'

Table 1: Specific objective, intermediate results and sub-intermediate results

Strategic Objective 1: Strengthen human capabilities in health and nutrition in order to mitigate the effects of food insecurity
Intermediate Result 1.1: Improved caretaker practices in health, nutrition and hygiene
Sub-intermediate Result 1.1.A: Strengthened capacity of GoM health personnel to plan, implement, and evaluate care and support programs
Sub-intermediate Result 1.1.B: Growth monitoring & promotion (GMP) and nutritional surveillance
Sub-intermediate Result 1.1.C : De-worming and micronutrient supplementation
Sub-intermediate Result 1.1.D: Promoting positive behavior change
Intermediate Result 1.2: Improved individual and household level livelihood capacities
Sub-intermediate Result 1.2.A: Micro-finance training needs assessment and training plan
Sub-intermediate Result 1.2.B: Training of micro-credit personnel
Sub-intermediate Result 1.2.C: Micro-credit support fund
Sub-intermediate Result 1.2.D: Provide livestock services through PCAs
Intermediate Result 1.3: Increased capacity of communities to mitigate their food insecurity shocks
Sub-intermediate Result 1.3.A: Conduct participatory awareness raising training
Sub-intermediate Result 1.3.B: Community needs assessment and action plan
Sub-intermediate Result 1.3.C: Community support to access financial/material support for development efforts
Sub-intermediate Result 1.3.D: Local facilitator food for service
Sub-intermediate Result 1.3.E: Improvement of community infrastructure to support improved food security

The first Program Coordinator left in October 2008 after one year of employment, and there was a gap of several months before this position was filled.

Identifying a microfinance institution to extend micro-credit services to the program communes was found to be a major challenge. The experience of micro-finance is extremely limited in Mauritania. Only a handful of institutions offer micro-credit services and these are extended mostly to peri-urban communities. These institutions have limited capacity and do not have much experience working in the rural areas. Moreover there was no micro-finance institution working in CANAL's area of operation. A seven-month partnership agreement was signed between CECD-M and CPI in March 2009, which has created opportunities for communities located in CANAL program areas to gain access to micro-credit. Activities since the end of the initial contract were slowed pending the release of new contracts.

Table 2: Key events in the life of the CANAL program

Date	Event
October 2006	Original proposed start date
October 2006	Initial agreement signed on October 31, 2006
January 2007	TA Modification 1: Obligating 202e funds (\$22,900)
March 2007	CPI opened office in Mauritania; the Chief of Party (COP) arrived.
July 2007	TA Modification 2: Obligating ITSH funds and second tranche of 202e funds (\$423,160)
August 2007	The COP left CPI.
August 2007	Host Country Agreement signed by the Government by Mauritania
September 2007	Baseline study conducted
September 2007	New COP joined
October 2007	Program Coordinator joined
January 2008	Key staff hired
March 2008	TA Modification 3: Revising FY 2007 commodity level in the amount of 2,300 MT
March 2008	First office opened in Kaeidi
March 2008	TA Modification 4: Approval of FY 2008 resources (8130 MT commodities, 202e funds (\$98,671), and ITSH funds (\$268,240).
March 2008	All field offices opened
March 2008	Seven communes selected for program implementation
May 2008	Received issues letter from Food for Peace on M&E indicators
June 2008	TA Modification 5: Reduced commodities for FY 2008 (from 8130 MT to 7610 MT) and to approve transfer of monetization proceeds in the amount of \$736,415 from the expired WV/Mauritania DAP
August 2008	A military coup seized power and CPI was asked to stop working with the government
October 2008	Project Coordinator left CPI
October 2008	TA Modification 6: Approval of resources for FY 2009 (6,500 MT of commodities) and changing the reporting requirements
November 2008	TA Modification 7: Obligating 202e and ITSH funds for FY 2009 (\$310,000)
February 2009	New Project Coordinator joined
March 2009	TA Modification 8: Approval of the revised PREP for FY 2009
March 2009	Partnership agreement signed between CPI and CECD-M
April 2009	TA Modification 9: Approval of revised budget and obligating 202e funds and ITSH funds (\$443,100)
July 2009	Democratic government took power and CPI resumed working with the government
August 2009	TA Modification 10: Obligating 202e and ITSH funds (\$ 260,700) and amendment of 202e and ITSH funds
December 2009	TA Modification 11: Approval of FY 2010 budget and obligating 202e and ITSH funds (\$666,000)
March 2010	Mid-term evaluation

Resources

Table 3 summarizes resource allocations at the time of the initial grant approval and current projections over the Life of Activity of the program. The total program cost at present is estimated to be US\$ 47,048,783 including the program cost-share.

Table 3: Resource summary

Resource	Initial Grant Approval	Current Projection
Distribution Commodities	2,083 MT	2,083 MT
Monetization Commodities	53,800 MT	53,800 MT
Monetization Proceeds	\$11,002,598	\$11,002,598
202e	\$827,065	\$1,232,151
ITSH	\$2,049,068	\$2,049,068
CS Contribution	\$26,376,064	\$26,376,064
Total Program Cost	\$46,643,697	\$47,048,783
Direct Beneficiaries Target	46,800	46,800
Life of Activity	Oct 2006 – Sept 2011	Oct 2006 – Sept 2011

CANAL Operating Environment

The operating environment for the CANAL program has changed substantially since the program was first designed. At that time, CPI did not have a physical presence in Mauritania. It opened an office in March 2007 and immediately faced challenges in signing a Host Country Agreement with the government and in identifying staff with adequate experience and educational background.

Mauritania is a large country with a low population density. Communes are widely spread apart, ranging from 200-600 km from each other. Poor infrastructure, absence of road networks and inadequate human capital pose enormous challenges to program implementation. The program targeted communes that are remote and isolated from department headquarters and services, and used a number of criteria to identify communes with a high concentration of food-insecure. Some of the program communities within communes are 40 to 60 km apart with no road network. It is extremely difficult for staff to commute between the villages by motorbike.

The opportunity to integrate with other NGO programs or interventions carried out by the government is extremely limited. There is no other NGO working in the program area and the government also has a limited capacity to provide services to many of these communities.

Evaluation Methodology

The Mid-Term Evaluation was conducted by a team of four consultants with expertise in program evaluation as well as fields relevant to the CANAL program.² Reviewing existing secondary sources of information and using qualitative survey methods, the evaluation team

² The team leader from TANGO International has extensive experience with evaluation methodologies, Title II programming, agricultural production, and monitoring and evaluation. The Mauritanian Micro-Finance specialist has extensive experience in microfinance in Mauritania and reviewed activities under IR 1.2. The MCHN specialist reviewed activities under IR 1.1 and the Cameroonian Community Development expert reviewed the activities under IR 1.3.

assessed (1) the quantity and quality of outputs produced, (2) the quality of the processes used in implementing the program, (3) the targeting of beneficiaries of program interventions, (4) the likely impact of the program during the life of the CANAL as well as the impact likely to be sustained after 2011, and (5) the effectiveness of program management, including cooperation with different national and local program partners.

Information was gathered in two phases. First, a data analysis/"ground-truthing" workshop was held on 29 March 2010 to analyze qualitative data collected up to that point in order to formulate initial findings and identify information gaps. The second round of information gathering was designed to collect further information as well as to refine observations and formulate recommendations. Annex 2 contains documentation associated with the approach used in the evaluation, including the work schedule and the tools used.

Report Structure

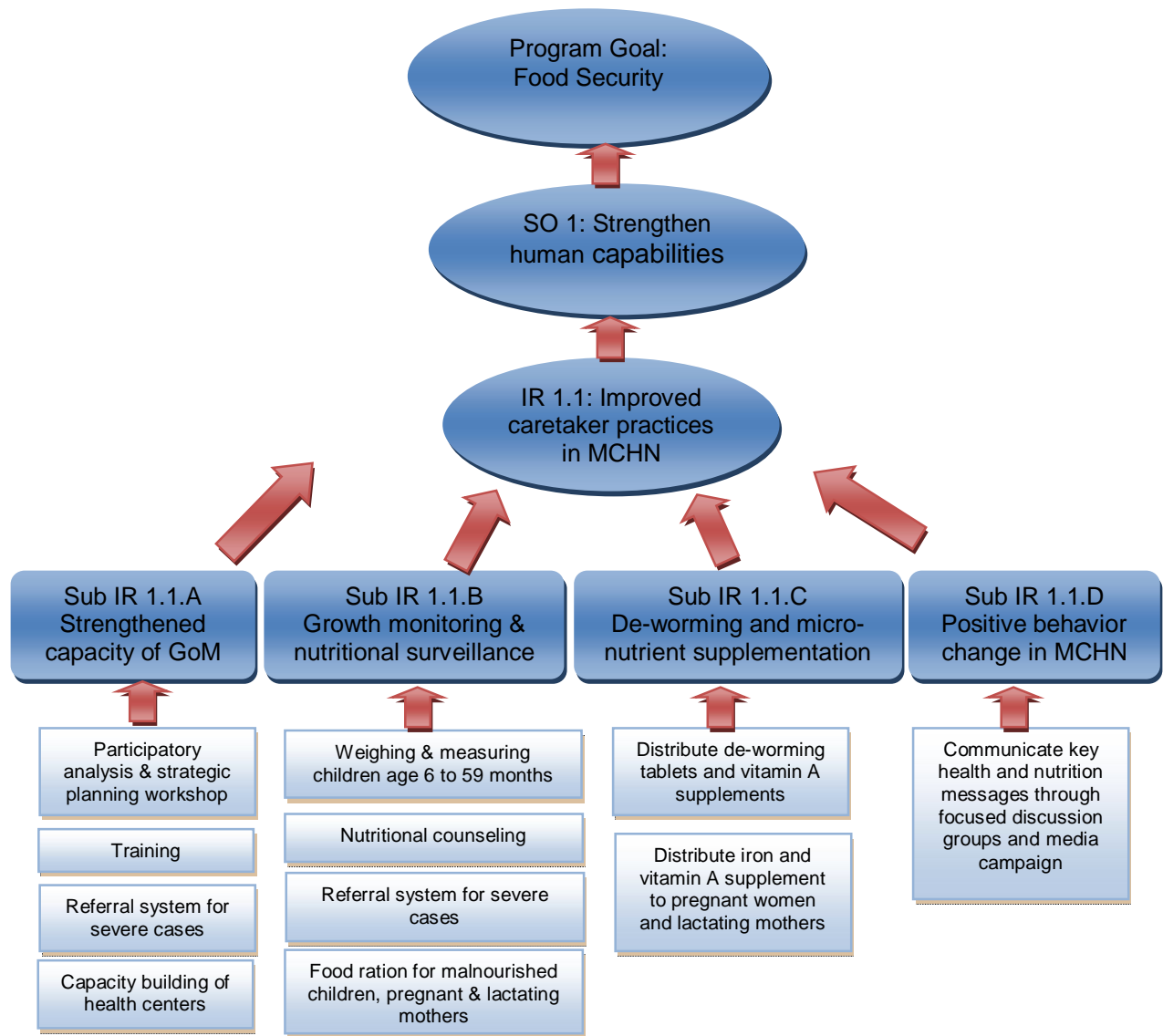
The next section of the report documents the observations of the evaluation team relative to the activities and outputs produced by the program. Section 4 describes the observations of the evaluation team relative to the program processes used for managing the program, partnering, integrating the program internally and externally, using financial, human and commodity resources, and environmental monitoring and impact mitigation. Section 5 summarizes observations associated with special topics relevant for CANAL, including targeting, sustainability, monitoring and evaluation, and gender and knowledge management. Section 6 discusses the likely impact of the program over its life as well as after the program ends. Finally, Section 7 proposes priority recommendations for maximizing impact over the remaining life of the program. Section 8 presents the review team's concluding remarks.

3. Key Observations on Outputs under Intermediate Results

3.1 Overview of Intermediate Result 1.1: Health and Nutrition

The focus of activities under Intermediate Result (IR) 1.1 is on strengthening the existing system of Integrated Management of Childhood Illness (IMCI) managed by the GoM to help improve and increase care and support to mothers and children. This section discusses observations relevant to each of this IR's, four sub-IRs, whose outputs are illustrated below in Figure 1.

Figure 1: Output for IR 1.1



3.1.1 Strengthened capacity of GoM health personnel

Sub-IR 1.1.A targets both clinic- and community-based management of childhood diseases through improving the skills and capacity of government chief nurses, training community health workers, and providing them with over-the-counter medications.

Training Head Nurses of the Ministry of Health

Using the national primary health curriculum entitled *Prise en Charge Intégrée des Maladies de l'Enfant* (Clinic-based Integrated Management of Childhood Illnesses), in FY 2008 the CANAL program provided training to 40 state health nurses and four CANAL health animators. The

training topics include diagnosis, treatment and monitoring of potentially epidemic childhood illnesses. Although the IPTT target was to train 50 caretakers, only 40 nurses were provided by the government to work with the program. One training session was organized to cover Gorgol and Guidimakha regions and the second session was organized for Assaba and Hodh El Gharbi regions. The MoH provided the trainers while the CANAL MCHN Coordinator coordinated the logistics.

Discussions with the head nurses suggest that the quality of clinic-based IMCI has improved as a result of the training. Moreover with the establishment of community-based IMCI, many childhood illnesses are now managed at the community level; hence the number of cases reported to the health posts or centers has declined. In addition to IMCI, the nurses are also responsible to monitor nutritional surveillance activities and provide technical support to the health facilitators. The head nurses working with the program are spread thinly over the program area. For example, in the commune of Fom-Gleita, only two head nurses work with the CANAL program for approximately 3,000 households (spread among 40 sites), and four head nurses cover approximately 5,200 households in the commune of Khabou. The head nurses can only spend three to four days for monitoring the work of health workers and GMP sessions. Meanwhile the nurses' home health posts remain empty during their field visits, suspending emergency health care services. The head nurses do not have transportation; they depend on program transport to visit the communities. Every month the head nurses make routine visits to the communities, spending a short time in each of the communities to collect records from the health workers (*Agent de Santé Communautaire*, or ASCs) and health facilitators (*Relais Communautaire*, or RCs). They do not check quality of services or provide much technical support.

Training of Community Health Workers/ *Agent de Santé Communautaire* on IMCI

To establish a community-based IMCI system, the CANAL program provided training to 160 community health workers (CHWs) on community-based IMCI to help diagnose and treat or refer cases of common childhood illnesses and symptoms of illness including fever, diarrhea, malaria, anemia, parasites, wounds, schistosomiasis, and conjunctivitis. CHWs use registers and tools that display pictures of symptoms and other information to facilitate the diagnostic process and treat non-urgent cases, while referring cases that are beyond her or his scope of

Figure 2: CHW with her pharmaceutical kit in Kleyla, Hodh el Gharbi



knowledge to state health facilities. The training uses a clinic-based national IMCI curriculum, adapted for a community focus: *PCIME Communautaire*, or Community-based IMCI. The CHWs were identified by the communities; however, preference was given to those already working with the health system and with some experience.

Using pharmaceuticals provided by CPI as a matching contribution,³ the CANAL program provided each CHW with a pharmaceutical kit to facilitate her/his work. CHWs sold these medications at an established price slightly marked up by CPI in order to partially cover the cost of services. Income from the medicine sales are divided into three equal parts: one part is to resupply the kit, one portion is deposited into a community health fund for emergencies, and the third part is a service charge for the CHW. On average each CHW has 10 consultations a month, totaling over 19,000 consultations a year in the CANAL intervention sites.

Focus group discussions (FGDs) with the communities and interviews with the health workers and head nurses revealed that the services provided by the CHWs are making a significant impact in the community. Overall management of childhood illness has improved and the number of cases reported to the health centers has declined. This can be attributed to a change in access to local services. Before the CHWs, community members had to travel several miles to access health care services, which are now at their doorstep via the CHWs. The CHWs are highly regarded and respected by the communities – even in those located in the most remote areas.

There is also room for improvement in the activities targeted to CHWs. Many of the CHWs do not have literacy skills and access to information is extremely limited. There is a strong need for periodical refresher training so that the CHWs can refresh their learning as well as update their information and knowledge base. There is also a need for reviewing financial incentives for CHWs. Currently the CHWs earn about two thousand Ouguiya per month (approximately USD \$3.75⁴). The CHWs also receive a food incentive ration, which will end with the program. It is unlikely that a large proportion of CHW will continue their services if the income potential is insignificant. Many CHWs raised this issue to the Midterm Review (MTR) team.

In addition, CHWs depend heavily on program staff for medicines. For the sustainability of community-based IMCI services, it is critical for the program to establish linkages between the CHWs and the medicine market so that they can expand their business to make it viable. It is also important to link CHWs to micro-credit so they can access loans. Although anyone living in the program area is eligible to apply for micro credit loans, many individuals need support to develop a business plan and guidance from program staff to initiate the loan application process. One possibility for minimizing dependence on the program for continued resources is to increase the fees that CHWs charge for services; because the CHWs are recognized as providing a good service to the community, the community may be willing to pay a little bit more to continue accessing the services.

Training of Community Health Facilitators/*Relais Communautaire* on Health Education and Growth Monitoring

CANAL program staff provided training to 320 community health facilitators (CHFs) / *relais communautaire* (RCs) on health education techniques and growth monitoring. The CHWs also joined CHFs in the training. It is important to note that most of the CHFs do not have literacy skills. The CHFs with literacy skills learned more from the training compared to their counterpart without literacy skills. Key informant interviews with the staff suggest that the overall performance of the literate CHFs is better in the field.

³ Matching contributions refer to non-Title II resources considered part of the program.

⁴ USD 1 = 266 UM.

Each CANAL intervention site has one trained CHW and two trained CHF, who make up the Community Health Committee. This committee is responsible for disseminating important health information from the supervising state nurse, leading health education sessions, conducting growth monitoring, providing non-urgent medical advice and selling pharmaceuticals, referring life-threatening cases to the state-run health posts or health centers, promoting child vaccinations, and encouraging pregnant women to attend pre-natal visits.

In general, the Community Health Committees were found to be inactive. The CHW has been doing her/his IMCI work with no real oversight from the committee. The selection of CHF for the committee was found to be problematic. In many cases people with literacy skills were not selected. The CHFs need a minimum of reading skill to be able to read and comprehend messages and the appropriate interactive tools with training on facilitation so they can effectively use them to facilitate discussions. CHF without literacy skills are faced with greater challenges in comprehending messages and information from head nurse and health animator and effectively communicating them to the community. The training provided to the CHF and the tools used found to be inadequate in improving the facilitation skills of the CHF moreover the program did not provide flip charts that were used in the training to the CHF. Therefore the CHF do not have access to the flip charts in health communication sessions. Generally BCC materials with graphics and animations are effective in facilitating discussions around health and hygiene messages. This is particularly important when the illiteracy is pervasive and often times the CHF does not have the skill as well.

Training of Traditional Birth Attendants

In CANAL target areas, most births are attended by Traditional Birth Attendants (TBAs). The program provided training to 15 TBAs based in 15 different health posts within the CANAL target areas and provided a TBA kit to each participant. Those TBAs trained are responsible to attend an estimated 14,000 households in the 160 sites where the program works. Especially considering that only 13 of the 15 TBAs trained are currently active, this ratio seems extremely inadequate. To give an idea of the work of a single TBA, in the Guidimakha region, the TBA finished her training in June 2009 and by March 2010 had assisted in over 60 deliveries.

One of the main constraints to TBA training is that because the program works in partnership with the MoH, it may only provide training to those TBAs recognized by the ministry. While there are many more TBAs in the community, they are not recognized by the government and thus excluded from the program. Opening the training to all TBAs would increase the services that could be provided in the program coverage area, and hence increase program impact.

3.1.2 Growth monitoring and nutritional surveillance

Growth monitoring or nutritional surveillance is one of the key strategies of the CANAL program under IR 1.1. This sub-IR focuses on rehabilitating moderately malnourished children through nutritious food rations and establishing a referral system for severely malnourished children. This sub-IR also focuses on improving the nutrition of pregnant women and lactating mothers in the target communities.

Every six months, the program screens all children ages six to fifty-nine months in the target communities. CHF and CHW collect anthropometric information and the health animator forwards the data to the monitoring and evaluation officer based in Kifa. The M&E officer analyzes the information using Epi-Info and calculates height-for-age z-scores, weight-for-age z-

scores and weight-for-height z-scores to identify moderately and severely malnourished children. To identify moderately malnourished children, the program uses the following cut-off points:

- Wasting: weight-for-height z-core below -1.8 SD
- Stunting: height-for-age z-score below -2 SD
- Underweight: weight-for-height z-score below -2 SD

The M&E coordinator prepares a list of malnourished children by site and forwards it to the region. Based on the list, the moderately wasted, stunted and underweight children are enrolled into the growth monitoring and promotion (GMP) for six months and the severely malnourished children (children with a z-score below -3 SD for any of the three measures of malnutrition) are referred to the health posts or health centers where these children receive Plumpy'nut.

Moderately malnourished children ages 6 to 36 months are monitored on a monthly basis, while children ages 37 to 59 months are measured on a quarterly basis. Each of the children enrolled in GMP receives a monthly dry ration (0.75 kg of lentils, 0.375 kg of vitamin A fortified oil, and 3.125 kg of corn-soy-blend) from the program. Until now there are 13,386 children screened and 8,812 children were identified as moderately malnourished. These children were regularly weighed for six months and have received food rations from the program.

Figure 3: Growth monitoring in Cheikh Village in Khabou



The growth monitoring and promotion (GMP) component of the program might have been having impact in reducing malnutrition in the target communities. The GMP model is for the CHF's to take the measurement while the CHW provides technical support. In all of the communities that were visited by the MTR team, it found problems with the quality of GMP sessions. Although the CHF's are taking the measurements, most of the time they make a measurement or recording error, which invalidates the program's anthropometric data. Interviews with CHF's, CHW and the program staff suggest that inadequate training to CHF's and CHW, illiteracy, and poor monitoring and supervision system are responsible for this problem. Some of the CHF's do not know the basic techniques and practices like calibrating the scale, scale placement, or how to place a child on a scale. Many do not have any literacy skill and the monitoring of the sessions is ineffective. In his recent field trip to check data quality, the M&E coordinator also identified this problem. The CHF's do not plot the anthropometric data on the growth charts printed and distributed by the program, hence they do not know whether there is any progress with regard to the nutritional status of the child. Therefore the nutritional gain of the enrolled children could be attributed to the food that the program provides to the child.

There are also problems with the utility of the growth charts themselves: unlike the growth charts used in other countries and programs, the chart used by CANAL program is not color-coded, which is typically a useful feature to aid in chart interpretation.

Additional shortcomings of implementation are that there is no discussion with the mothers to investigate the causes of malnutrition and how to address the problem of malnutrition, regional offices do not have the capacity to analyze nutritional data, and the community does not have a

clear idea why certain children are regularly weighed by the program and eligible to get food rations while others are not. Although the program provided training on EpiInfo to all Health Animators, they still lack skills and confidence to analyze anthropometric data.

The support from the CHW during GMP sessions is inadequate and does not help to improve the quality of the GMP sessions. The head nurses and the CANAL health animator are also supposed to monitor the quality of the GMP sessions and anthropometric data. However, the MTR has found that the head nurses do not have time to monitor quality and since the health animator accompanies the head nurse in the field, he does not spend adequate time to monitor the quality of GMP either. Meanwhile the health animator is confused with his role as he thinks it is the sole responsibility of the head nurse.

The program refers all severely malnourished children in the target area to health posts or health centers. In addition the program provides an incentive ration to the caretaker to encourage the household to regularly take the child to the health post or health center. However the program does not track the severely malnourished children that are referred to the health posts, hence does not know the outcome of the treatment. Overall while it is possible that malnutrition rates are decreasing because of the food ration, IMCI and other program interventions, unfortunately the program does not have much valid information to monitor progress or sufficient data quality to attribute improvements.

While the program has been taking advantage of the food resources to provide food rations to malnourished children, it is equally important to introduce long-term solutions to the problem of malnutrition. The program should also start encouraging households to plant and consume nutrient-rich vegetables and fruits. For example, *moringa olifera* is well suited to the environment; the CHF's could facilitate the creation of *moringa olifera* plantations as well as demonstrate how to prepare different dishes with *moringa* leaves, pods and flowers.

3.1.3 De-worming and micronutrient supplementation

Activities under sub-IR 1.1.C are designed to prevent parasitic infections through de-worming the children ages 6 to 59 months in the target area and providing them with vitamin A supplements. To combat iron deficiency anemia among the pregnant and lactating women, the program distributes iron supplements to all pregnant women and lactating mothers.

To achieve its objectives for providing de-worming treatment and vitamin A distribution, the program contributes human, financial and pharmaceutical resources in bi-annual immunization campaigns organized by MoH and UNICEF. The FY 2009 target for the indicator for this sub-IR is 90 percent. Regarding the vitamin A component, the program considers "regular" supplementation as twice yearly.

In FY 2009, all children ages 6 to 59 months (16,793 children) in the CANAL program area were provided with vitamin A supplements; in addition, the vegetable oil that the program distributes as a part of food ration is vitamin A fortified. However interpretation of this figure in relation to the target must take into consideration that in FY 2009, the government carried out only one vitamin A campaign; hence, the criterion of "regular" supplementation has not been met. This is beyond the control of the program. Program management plans to cover all children again when the government conducts the next campaign. In regard to de-worming, all children in the CANAL program area ages 12 to 59 months (10,918 children) were given the de-worming medication Albendazole.

In 2008 the CANAL program also participated in the Expanded Program on Immunization (EPI) vaccination campaigns led by the MoH. Because the CANAL target communities are located far from the health posts where EPI is based and lack the means to travel to the posts to receive vaccinations, the CANAL program contributed resources to EPI for mobile and advanced vaccination outreach to ensure coverage for CANAL program beneficiaries.

Since the beginning of the program, the CANAL program distributed folic acid pills (iron tablets) and anti-tetanus shots to 3,120 women, and has designed medical cards to monitor pregnant and lactating women's health status. The cards are designed to help follow up on beneficiaries' intake of chemoprophylaxis against malaria and folic acid against anemia, and in monitoring for postpartum vitamin A deficiency. The medical card also includes a vaccination calendar for neonatal tetanus and a vaccination calendar reminder for children ages 0 to 11 months. One problem found regarding utilization of the medical cards was that not all cards are regularly updated.

Based on information obtained in interviews, the de-worming and vaccination interventions are having a significant impact on the target communities. According to government health officials, CANAL target communities have the highest vaccination coverage in the country. The interviews with the head nurses suggest that the morbidity and mortality in target areas have decreased. Although the MTR team did not have access to any data to better understand the impact, it is evident that through an integrated approach, the program has been successfully addressing some of the major causes of morbidity and mortality in the area.

3.1.4 Positive behavior change in MCHN

The last sub-IR, 1.1.D, focuses on increasing women's awareness of personal hygiene, diarrheal disease management and management of other common illnesses through behavior change and communication (BCC) sessions facilitated by health facilitators.

Promoting positive behavioral change is one of the most important sources of support for sustainable improvement in health and nutrition. Although the program proposal mentioned using a Positive Deviant Hearth Approach, the program has not been using this model due to lack of implementation capacity. Instead the program is using BCC materials and health communication sessions to influence positive behavior change. While BCC is part of the community-based IMCI approach, it has yet to be fully integrated. CHWs have been primarily implementing community-based IMCI, while CHFs are responsible for the BCC sessions. Although both positions are part of the Community Health Committee, the health committee as such has not been functioning, which has posed a challenge to the linkage between BCC and IMCI.

The CANAL program's Positive Behavior Change Communication approach combines community awareness-raising with local and national radio campaigns to influence long-term behavior change among the target population. The program has trained all 320 health facilitators/RCs and 160 health workers/ASCs on health communication techniques. The community health facilitators are primarily responsible for conducting health and hygiene communication sessions to the communities, and organize two sessions per month. Approximately 15 to 20 people attend each session, and participants are mostly women. Session topics include the importance of vaccinations, pre-natal care, exclusive breastfeeding, hand washing, household cleanliness, and promotion of latrines. According to the monitoring data provided by the program, over 15,570 community members have attended health

communication sessions since the beginning of the program. The second component of the approach, radio campaigns, is currently non-operational as most of the regional radio stations do not work.

FGDs with participating mothers during the evaluation revealed that there have been changes in behavior after the health communication sessions conducted by the CHF. The mothers stated that they had participated in sessions on hand washing, exclusive breast-feeding, and diarrhea management. These mothers, now practicing some of these behaviors, perceive that there has been a reduction of diarrhea among children and infants in comparison to previous years. The Knowledge Practice and Coverage (KPC) survey of a representative sample of households selected using probability sampling techniques shows that four percent of caregivers demonstrated proper personal hygiene, 42 percent of children ages 0-6 months were exclusively breastfed, 27 percent of mothers administered correct treatment for diarrhea, 10 percent of caregivers demonstrated proper food hygiene behavior, and 12 percent of mothers used appropriate feeding practices for children ages 6 to 23 months.

However, the results also show poor adoption by caregivers of good hygiene behaviors, including personal hygiene, food hygiene behaviors and appropriate feeding practices. The BCC sessions are unlikely to make further changes in these practices unless the quality of sessions is improved. The CHFs lack facilitation skills and primarily use a lecture format to deliver the messages instead of counseling and problem solving, demonstration, or offering practical help. The CHFs do not have access to flip charts, posters, flash cards or any other visual aids to support the discussions. As a result, most of the participants find the sessions uninteresting. Developing flip charts with colorful illustrations and pictorials for use in the sessions would be a great help to make the sessions more useful to the community and to facilitate discussions, given that in the program area, the majority of CHFs and community members do not have literacy skills.

School latrines

At the beginning of the program there was no latrine in the CANAL target areas. The program constructed 15 latrines in 15 elementary schools with an assumption that children would learn and adopt good practices in the use of latrines at school. In most cases latrines for boys and girls were constructed with separate doors, but there are also schools in which the program constructed latrines with only one door, which is found to be unacceptable by the community. The discussions with the teacher and the students revealed that in general students are using latrines and this is a big help to the schools. The teachers stated that loss of classroom time has decreased with the latrine in the school compound compared to before the latrines were constructed, and both teachers and students had to go quite far for privacy.

Figure 4: School latrine constructed in Medaine, Hodh el Gharbi with one door



Although it is too early to evaluate the impact of school latrines, there are not many examples suggesting that communities are installing latrines at home. Certainly awareness-raising around

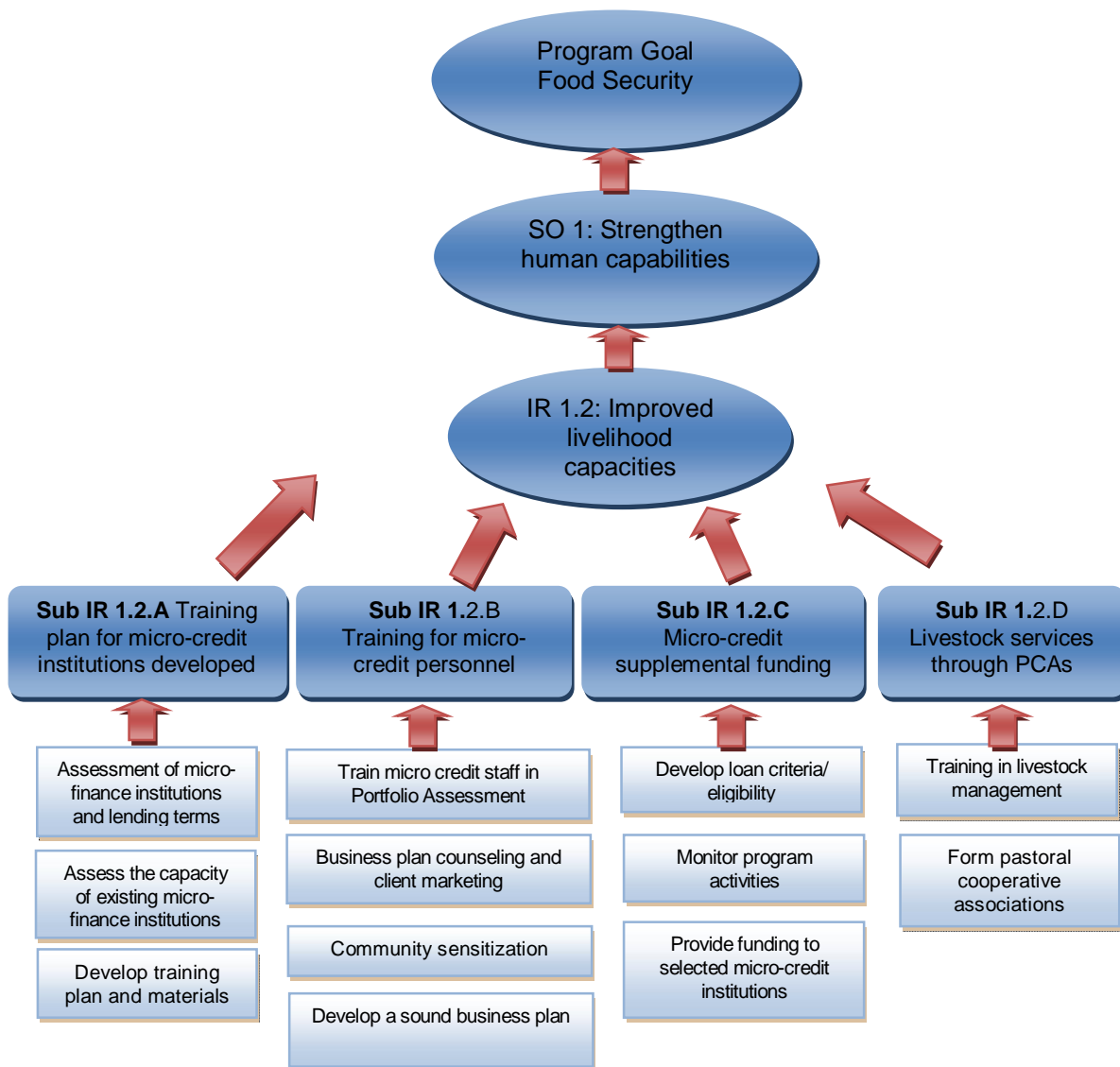
the benefits of latrine use in the schools is one of the key factors to change behaviors, however the cost of installing latrines is an obstacle to broader adoption of latrine use. Unless the health education sessions effectively address the issue of sanitation and at the same time the program develops or introduces a less expensive latrine model, it is unlikely that communities will start installing latrines at home. Giving a sense of the resources required for latrine installation, the MTR team found that in Tintrami Village a household spent approximately 50,000 UM (approximately \$188) to construct a latrine. The community informed the MTR team that if the household has to hire labor, the cost would nearly double. In the next phase, the program may want to consider latrine models available in other countries that cost no more than \$30.

3.2 Overview of Intermediate Result 1.2: Micro – Finance

There are not many micro-finance institutions in Mauritania. As mentioned in the introduction, identifying a microfinance institution to extend micro-credit services to the program communes was a major challenge. The CANAL program ultimately selected *Caisse d'Epargne et de Crédit Djikké-Mutuelle* (CECD-M) to implement activities under IR 1.2. CECD-M is a small micro-finance institution that promotes savings and credit to individual borrowers. It operates through four branch offices based in Nouakchott, Lixeiba, Kaédi and Sélibaby. The primary target group of CECD-M is peri-urban households, however partnership with the CANAL program opened up opportunities for CECD-M to work with rural communities. The institution was initially supported by OXFAM- GB and the African Development Bank, and is now accredited with the Central Bank of Mauritania to implement micro-credit activities. The CANAL program signed a partnership agreement with CECD-M in early 2009. However the first contract was only for seven months (March to September 2009) in order to see how the partnership would work out and to verify CECD-M's capacity to deliver the outputs. From October 2009 through February 2010, activities implemented by CECD-M were slowed pending the release of new contracts.

Outputs for IR 1.2 are shown in Figure 5 below.

Figure 5: Outputs for IR 1.2



3.2.1 Development of a training plan for micro-credit institutions

CECD-M hired five community workers to conduct micro-credit activities for the CANAL program: two for Laouessi, Lebheïr and Gueller in Assaba; one for Touil and Lehrejatt in Hodh el Gharbi; one for Foug-Gleita in Gorgol; and one for Khabou in Guidimakha. Two existing CECD-M credit workers (one for Gorgol and Guidimakha regions and one for Assaba and Hodh el Gharbi regions) provide support to the community workers.

3.2.2 Training for micro-credit personnel

CECD-M provided two trainings on community awareness raising on microfinance and CECD-M loan procedures to credit agents, CANAL micro finance animators, and the CECD-M community workers hired for the CANAL program. A consultant hired by CECD-M provided the training. The first training was three days and covered credit management, staff responsibilities and use of tools. The second training was for two days. The knowledge and skill level of CECD-M community workers were found to be limited.

No training was provided on portfolio management, monitoring, business plan development, marketing and counseling, which are important skills for micro finance staff. These topics are recommended to be incorporated in future trainings.

3.2.3 Micro-credit supplemental funding

The ultimate goal of the micro-credit component is to help poor communities to increase access to food through increased income. This was a new and challenging intervention for the CANAL program. It took substantial time to identify a partner with adequate capacity. Therefore in the first year, CANAL provided support to income-generating activities (IGAs) via direct grants from the program's micro-credit fund. Subsequently, CANAL signed a contract with CECD-M as its institutional partner for managing micro-credit component. The CANAL program loaned \$250,000 to CECD-M to manage the credit program, as well as \$106,202 as operating costs and overhead. CECD-M does not make any financial contribution or provide any supplemental fund to the program.

Income-generating activities

Before the partnership agreement was signed between CPI and CECD-M, the CANAL program provided support to IGAs in 11 communities.⁵ Approximately 1,476 members including 360 women are directly benefiting from the IGAs. The program helped to establish five grain mills, nine shops, two butcheries, one bakery, and two tie-dye centers. Although the primary purpose of these activities is to contribute to household income, some IGAs brought additional benefits to the community. For example before opening the shop in Kow Malal Village in Foum-Gleita commune in Gorgol, the community had to travel approximately 15 to 20 km to Foum-Gleita or B'out to buy daily necessities. Now, people from adjacent communities come to this village to shop.

In most cases, profit from the IGAs is divided into three equal parts. One part is used to pay operating costs including salary to the sales person or grind mill operator, the second part is kept for maintenance or business expansion, and the third part goes to the cooperative. A common model used in the shops formed with the IGAs is that two women from the community work as paid sales persons for two months, after which they are replaced by two new workers. This rotation provides an opportunity for many women to benefit from the wage income. In Kow Malal Village, the average income earned from this job is 15 to 17 thousand UM (60 USD) per month per person, which is considered a good income given the economy of the village. While the sales persons in the shops or grind mills (representing approximately 16 households in Kow Malal Village received financial benefit from the IGAs, the rest of the households have yet to

⁵ Seven in Assaba, two in Gorgoll, one in Guidimakha, and one in Hod-el-Gharby.

The Uses of Micro-Finance Loans

Personally, with my profit, I bought two bags of sugar and a bag of rice which I stored.

- Fatimétou, borrower in Touil

Before starting this small business I had to borrow to feed my children. But today, thanks to the credit, I have money both for food and to run my business.

- Fatmetou Mint Abdallah, borrower in Assaba

Fatimata Mint in Tintrame village under Foum-Gleita borrowed 310,000 UM (\$1,165) from the program to help her start an embroidery business. She buys clothes and makes traditional dresses, and hand embroiders them to sell them at the market. She also tie-dyes and sells veils. In addition she buys goats, fattens them and sell them at the local market. Fatimata's husband works in the fishing industry in Nouadibou. They have six children and the eldest one is in grade five. Two of their children live with her husband in Nouadibou and go to a better quality school which was possible because of the small business. Until recently, Fatimata was living with her parents in the same village but now with the additional income from IGAs made possible through the micro-loans, she built her own home.

receive any cash income from the IGAs. At the time of the MTR, the cooperatives had not distributed the benefits to the members at the time of MTR.

The success of the IGAs will greatly depend on their management after the end of this program. The program has yet to develop a strong financial management system for the IGA management committees. Without a strong management system the IGAs may become a source of conflict in the future and are likely to fail.

The loan process

The provision of micro-loans began when CECD-M joined the CANAL program. To be eligible for a loan from CECD-M, one must be a member of CECD-M. Generally CECD-M charges 10,000 UM for membership, but in CANAL target areas the membership fee has been reduced to 800 UM. Either an individual or a cooperative can apply for membership. The membership process begins with an application, and requires several visits to CECD-M staff. Generally the CECD-M community worker assists in completing the membership card, which describes the conditions and regulations set by CECD-M. CECDM informed the MTR team that they will offer all other services to its members in CANAL program area which includes opening a savings account and transferring money between departments.

Any CECD-M member living in the CANAL target area regardless of his or her wealth or income level is eligible to apply for a loan from the CANAL program. A five-member committee was formed to review and approve loan applications. The committee is comprised of a CECD-M community worker, a CANAL micro-credit animator, a CECD-M branch manager, a micro-credit agent, and a Village Development Committee (VDC) member responsible for micro-credit.

CECD-M normally charges an 18 percent service charge to the borrowers, however in the CANAL program area, the program pays 10 percent on the borrower's behalf and the borrower pays eight percent. This arrangement was made on the assumption that the majority of the borrowers cannot afford the service charge to avoid distorting the credit market by lowering CECD-M's service charge.

In general, there is no limit on the loan amount. If the committee finds the activity to be feasible and the amount justified, then the amount can be approved. The maximum duration of a loan is 24 months. The activities that are generally funded through the loans include petty trading, animal selling, butchery, sewing, embroidery, handicraft making, fabric dyeing, and establishing small shops.

At the time of the MTR, 98 women from the target communities have taken out individual loans from CECD-M through the CANAL program. The average loan size is 165,803 UM (\$623). Sixty-three men also took out individual loans, with an average loan size of 266,338 UM (\$1001). In addition, 75 cooperatives in the program area borrowed from CECD-M. Some of these cooperatives redistributed the loan among members.

The overall repayment rate is more than 95 percent. Indications are that the micro-credit activities are making a significant impact on the food security and overall livelihood security of participating households. All of the people who borrowed from the CANAL program have transformed the loan into an economic activity, and FGDs in a number of communes with the participants suggest that many households changed their living standards with the help of the loan. They stated that the quality and quantity of their diet has improved, some can now afford to send their children to school in the department town or other places, and others stated that they wear better quality clothing, have bought animals, or repaired their houses. A few participants built new homes.

General conclusions about the micro-credit component

Given the challenges and context, the MTR team concludes that the achievement in the micro-credit component is commendable. According to FGDs with the communities and interviews with the village heads and district officials, the CANAL program created opportunities for households to access collateral-free affordable loans to which these communities had not access in the past. The program gave hope to the target communities – even remote communities – to improve food and livelihood security through accessing financial resources.

It is important that for the remaining life of the program, CANAL develop strategies to minimize the risks both to borrowers and to the system and maximize the benefits of the intervention. The observations of the MTR team presented below explain some of the challenges that the program has currently been facing and need to be addressed to make a larger impact.

- ***The loan sizes for individual loans are too large for a micro-finance program.***

The experiences in other developing countries show that typically the first loan to an individual borrower is no larger than \$100 while in the CANAL program the average loan size ranges from \$600 (given to women) to more than \$1000 (given to men). Table 4 shows the distribution of loans by region and loan amount. The predominance of large loans not only poses risks to the system but also to the borrowing households. For example, many households keep a portion of the loan to make monthly repayments. This is a risky practice and gives a false sense of high

Figure 6: Fatima Mint in Trintame Village standing in front of her newly built home.



repayment rate in cases when the IGA fails or the money is utilized for purposes apart from those for which it was granted. For example in Kleyla, in Hel Noueina Village (Assaba) a woman borrowed 200,000 UM (752 USD) from the program for a small sewing business. She spent 20,500 UM to buy a sewing-machine and gave her brother the remaining 179,500 UM (674 USD) to trade livestock. This indicates that the loan amount was likely too large. It is also an example of introducing risk into the system and the family, because the program does not track the progress of the brother's livestock activities nor have any formal link to the brother; the accountability lies with his sister, the borrower, along with the responsibility to utilize the loan for its intended purpose.

Loan amount	Hodh el Garbi	Guidimakha	Gorgol	Assaba	All zones
20,000-50,000 UM (less than \$189)	2%	1%	0%	0%	1%
50,000-290,000 UM (\$190 - \$1,090)	97%	32%	47%	53%	58%
300,000-440,000 UM (\$1,127-1,654)	2%	23%	22%	16%	15%
450,000-550,000 UM (\$1,691-\$2,068)	0%	20%	9%	16%	11%
600,000- 1 million UM (\$2,256-\$3,760)	0%	24%	22%	14%	15%

Loans to cooperatives can be larger based on the number of individuals who will be engaged in the activities, the capacity of the cooperative, and the merits of the project it plans to implement. Nevertheless there should be a range of loan sizes available to cooperatives.

- ***The loan term (24 months) is long for a micro-finance program.***

Long loan terms limit the capacity of the program to extend opportunities to more households. FGDs with borrowers suggest that a proportion of households have repaid half of the loan amount within six months; this information can serve as some basis for establishing more suitable loan terms.

- ***Intensive supervision would be beneficial.***

Typically the high repayment rates of micro-finance projects are attributed to intensive supervision; however, this is a major constraint in the CANAL program. The lone CECD-M community worker without transport cannot effectively supervise all borrowing households. Although the repayment rate until now has been high, it is vulnerable to decrease. This would not only be detrimental to the program; it would also increase household vulnerability.

- ***Program coverage is limited.***

Until now the coverage of the loan component has been low. So far only 161 individuals and 75 cooperatives have accessed a loan. Some of the cooperatives started collective income generating activities in which a large number of members are directly participating in them while other cooperatives gave out loan to individual members. Although CPI tracks how many members in each of the cooperatives but it does not track how many households actually borrowed from the cooperatives or directly engaged in activities financed through micro-credit so it is impossible to determine exactly what percentage of households have directly

participated in micro-credit. However, the microfinance coordinator and CECD-M community worker acknowledge that the percentage is too small. In order to achieve program goals for increasing income to help increase access to food, it is critical that loans are accessible to a significant percentage of households seeking a loan to start a micro-enterprise.

- ***The micro-finance program does not have a targeting strategy.***

Currently anyone living in the target area can get a loan from the program by becoming a member and presenting a viable project. Although CANAL is working in food-insecure communities, food-secure households are located within these areas. The program needs to develop a targeting strategy to ensure that only food-insecure households are eligible to receive loans from the program.

- ***Travel requirements of membership pose a hardship to borrowers.***

In the current system of membership, the borrower must make several trips to the Commune Center (in some cases 40 to 60 km) to meet the CECD-M community worker. As FGDs revealed, this is inconvenient and poses a challenge to many borrowers and potential borrowers. Moreover, this system discourages poor households from making the effort to become a member, as the poorer the household is, the less likely it has a donkey-cart to travel. Moreover, the opportunity costs for the poorer household is much higher. For example, focus group participant Guitrana in Kow-Malal village in Fom-Glieta wants to borrow from the program to start a small business, but she did not apply for the membership at the beginning when CECD-M staff visited the village. At the time she did not have the membership fee. Now she has acquired the fee and wants to be a member, but does not have a means of transportation to make several trips to Fom-Gleita; each trip costs approximately 1000 UM. This illustrative case demonstrates that is important for the program to make the membership and the loan approval process easier and convenient for the poor households.

- ***Supervision by the CECD-M staff and the CANAL micro-finance animator is extremely inadequate.***

CECD-M staff are responsible to supervise the borrowers over a large geographic area but do not have transport. CECD-M does not contribute its own resources to procure transport neither the CANAL program allocated resources to CECD-M to procure transport. Currently CECD-M staff share ride with CPI animators. This results in inadequate supervision, which makes loans more vulnerable to default. The program does not supervise the individual borrowers that borrowed through a cooperative; the CECD-M community worker is satisfied if the cooperative makes regular payments. However, regular payments may mask the default of individual members within a cooperative; while the cooperative continues to make the payment, it may eventually become unmanageable for the cooperative. It is also important to note that the success of this component does not primarily depend on a high repayment rate the success also depends on the performance of the income generating activities financed through the micro credit and eventually the enhanced well being of the borrowing household. Aside from serving on the loan approval committee, the role of the CANAL micro finance animator in supervision remains unclear.

- ***To enhance the resilience of target households, it is critical to encourage savings – and have the facilities in place to support savings initiatives.***

In the first year of the micro-finance component, the contract with CECD-M was only for seven months, which was not enough time to start a savings component. However perhaps the greater challenge is that CECD-M do not have offices or safe deposit boxes in the communes, and CECD-M staff do not have transport to visit the communities; currently staff are dependent on

CPI transport. There are times when CECD-M staff carry a large amount of cash (more than \$3,000). This adds a huge risk to the system as well as the staff.

The MTR team understands that the renewed agreement between CECD-M and CPI provides for the establishment of CECD-M offices with safe deposit boxes in the operational area. CECD-M will have access to a shared motor-bike. CPI has three motor-bikes in each region for its animators, head nurses (for monitoring and mobile vaccination) and CECD-M. CPI asked CECD-M to submit a monthly action plan so it can prepare a coordinated field visit schedule to better manage the transportation need of CECD-M staff. The MTR team believes that these changes will improve supervision and management. Indeed, CECD-M management in Nouakchott informed the MTR team that it has been planning to actively encourage the community members to start savings.

- ***Risk management strategies must be put into place.***

The CANAL program and CECD-M have yet to develop a strategy to help households that may lose their investment due to natural disaster or civil conflict. The ultimate objectives of the micro-credit are to aid poor households to increase income and increase their resilience in the face of shocks, while ensuring accountability for proper use and management of the loan. Although developing effective strategies is an area that even major micro-finance organizations struggle with, in some countries standard systems exist through which these cases are managed on a case-by-case basis.

3.2.4 Livestock services through PCAs

The pastoralism component of the CANAL program started in FY 2009. The program trained 25 women in 12 communities in Assaba, Guidimakha and Gorgol on dried cheese technology and distributed kits to make the dried cheese. Eventually these 25 women trained another 58 women on cheese production.

FGDs with training participants from Moibarak village in Fom-Gleita were generally representative of other focus group findings. In Moibarak, participants stated that the CANAL program trained two women, who then trained five additional women. All of the participants were excited about the training and have learned how to make dry cheese. All women who received the training wanted the tools but only two received them. They were excited to show the cheese to the MTR team; it seems that the participants and the children like the taste of the cheese as well.

The focus group reported that the community does not have all of the ingredients to produce cheese. The trainer left a small amount of bacterial agent that was finished during the training, and the participants do not know how or where to find this product nor the cost. It was unclear to the participants what to do with the cheese. The trainer told them not to consume it, but they were not informed what to do next. They did not know whether they can sell it and if they want to sell, what price to charge.

If there is excess milk during the rainy season, the dry cheese intervention can be beneficial because it gives the community the opportunity to make alternative dairy products. However, a more inclusive and participatory process is needed to better inform the community so they can decide whether they want to be involved in this activity.

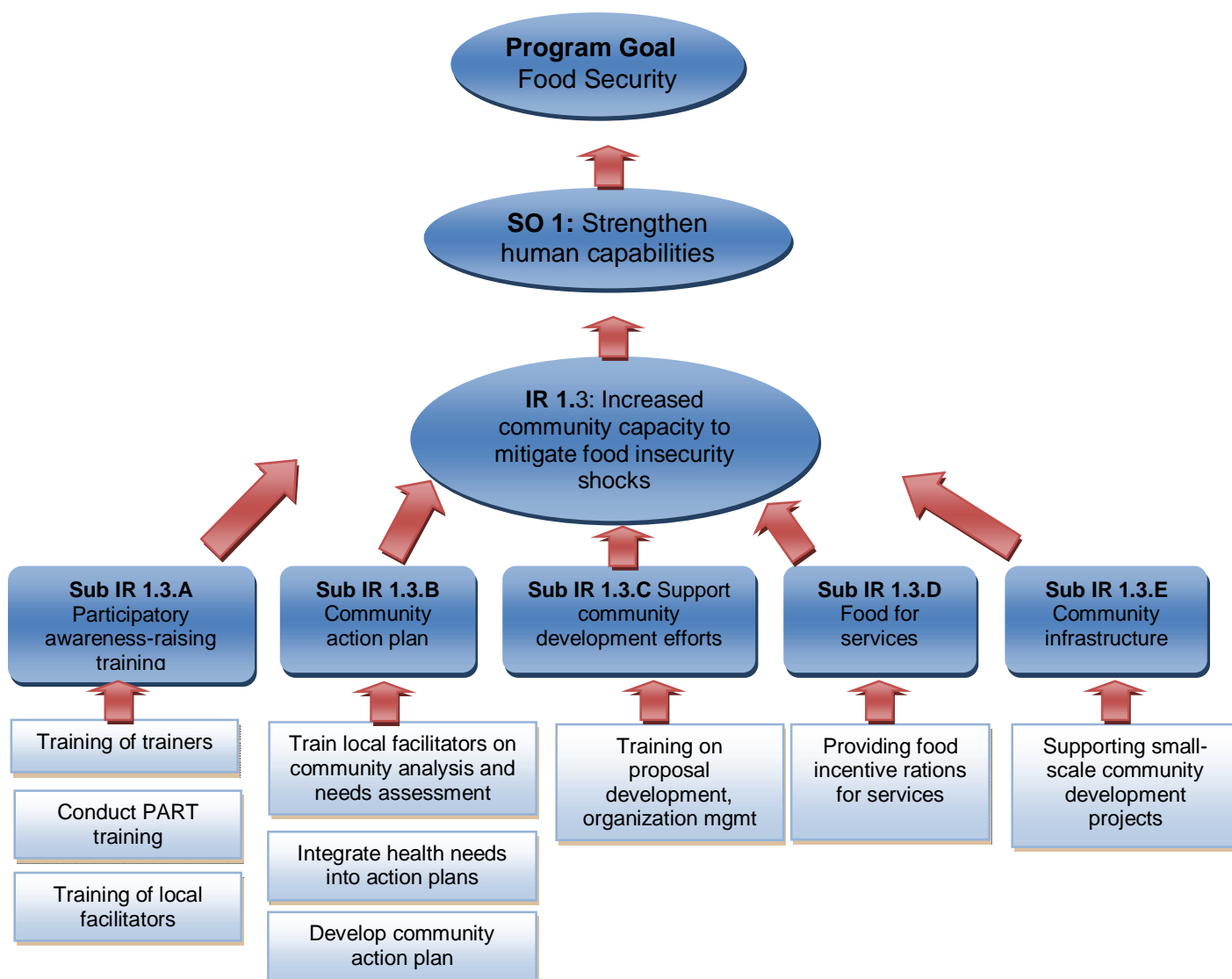
CPI is in discussion with cattle breeders to teach them to organize socio-professional groups in order to better exploit potentialities in animal production (milk, meat, leather etc...). Although

CPI developed a plan to implement this activity, budgetary allocation has yet to be made to implement the plan.

3.3 Overview of Intermediate Result 1.3: Community Development

The focus of activities under IR 1.3 is on empowering and mobilizing communities to address food security needs by utilizing local resources. The sub-IRs are intended to increase community capacity through awareness raising, participatory needs assessment, providing financial or material support to communities to initiate development activities, providing incentive food rations to members that provide services to achieve program objectives, and improving community infrastructure to overcome food insecurity challenges. Figure 7 illustrates the various outputs under IR 1.3.

Figure 7: Output for IR 1.3



3.3.1 Participatory awareness-raising training

The CANAL program formed village development committees (VDCs) in all 160 target villages. Each committee is comprised of a president, general secretary, treasurer, one member responsible for health and nutrition, one for community development, one for warehouse management, and one for micro-finance. For their services, each member of the VDC receives a monthly incentive ration of 1.2 kg of lentils, 0.75 kg of vegetable oil, 3 kg of bulgur wheat and 3 kg of CSB.

The selection process and key responsibilities of VDC members were explained to the community by CANAL program staff in a general meeting. Program staff did not facilitate the VDC formation process; the community identified the VDC members on its own. In many cases influential members in the community secured the key positions in the VDC, though there are more active, dynamic and literate members in the community who are willing to join. A large portion of the VDCs were found to be inactive, and little has been done to activate them. The VDCs that meet regularly tend to be in communities that have received an IGA from the program or that have community development projects. Although there are female members in the VDCs, the president and the general secretary positions are often held by males.

The CANAL program does not have a common vision about the VDCs. The VDCs see themselves as an interface between the community and the program, and most VDCs do not have any long term plan. Different regions have different ideas about the VDCs. The staff seems to know which VDCs are functional and which are not. However because of the lack of a common vision, no concrete idea or strategy was developed to activate the VDCs. Most of the staff now realize that the program staff should have been actively involved to facilitate the VDC development process to ensure that individuals selected for the VDC have the requisite skills, qualifications, and attitude. Moreover, the VDCs do not have much work to keep them active and functional.

The community development projects have management committees separate from VDC committees. Currently the management committees and VDCs do not have any functional relationship.

3.3.2 Conduct a community needs assessment and develop community action plan

All 160 VDCs were trained on Participatory Awareness Raising Training (PART) and Community Analysis and Needs Assessment (CANAN). After completing the needs assessment, CPIM animators assisted communities to prioritize their needs and develop Community Action Plans (CAP). Seventy-five communities have identified infrastructure development projects in their CAPs. Communities that have not listed physical infrastructure in their CAP have instead included capacity building, such as training on commercial vegetable production or livestock assistance.

Although the program provided these trainings, the staff generally lack skills in facilitation and participatory planning. The process and tools used in developing the participatory plans need improvement. Most of the communities visited by the MTR team do not remember the participatory action plan; this is written in French, yet it is difficult to find a French-literate person in most of the target communities. Participatory and interactive visual tools are more appropriate

for identifying needs and developing plans in communities without literacy skills. These tools were not used in the CANAL program, nor did the staff receive any training on using interactive tools.

3.3.3 Support community to access financial/material support for development efforts

The proposed activities under this sub-IR include providing training to the communities on proposal writing, organizational management, accounting and project management. The project design document suggests providing these trainings in the third to fifth year of LOA to the communities that successfully complete the PART, CANA, CAP, and two community-based activities. Hence the MTR team did not evaluate this sub-IR. Nevertheless, the team has a recommendation regarding this approach. Given the literacy skills of the communities, training on proposal writing is not a realistic strategy. In addition, training on organizational management, accounting and project management certainly would help improve the capacity of VDCs: it is recommended that targeting these trainings to VDCs rather than community members would be more strategic.

3.3.4 Food-for-services for local facilitators

The CANAL program provides incentive rations to all VDC members which include health workers (one per village), and community warehouse keepers (one per village). In addition the program also provides ration to health facilitators (two per village). The monthly ration is comprised of 1.25 kg lentils, 1 kg oil and 3.625 kg bulgur wheat. Until March the program has provided rations to 2,084 facilitators. One concern expressed by the communities and by the Auxiliary Veterinary Assistants (AVAs) during FGDs is that unlike the other service provider positions, the AVAs do not receive rations.

One challenge in the food-for-services approach is for the program to develop strategies to ensure that service providers will remain motivated to continue their work after the end of the program, when they no longer receive rations.

3.3.5 Improvement of community infrastructure to support food security

Animal vaccination parks

The CANAL program has constructed three animal vaccination parks: one each in Foug Gleita Commune (Gorgol), Khabou Commune (Guidimakha), and Lahreijat Commune (Hodh el Gharbi). Approximately six to seven villages

benefit from each vaccination park. The average cost of constructing each park is 17,000 USD. Each park has been used at least twice for vaccinations. User fees are 5 UM per animal for vaccinations and facility use. The Government Veterinary Department provides the vaccine and the services.

Each vaccination park has a management committee which was formed by the program. There are 12 members in the committee in Gorgol because 12 villages are potential beneficiaries of the park, while in Guidimakha and

Figure 8: Vaccination Park in Guidimakha



Hodh el Gharbi there are six members in the management committee. The members are identified by the communities. Although there are few members in the committee who happen to be the VDC members as well, there is no functional relationship between the VDCs and the park management committee. The committee is supposed to be keeping records of the number of animals that received vaccines and the fees collected from the services. The MTR team found that the treasurer of the committee keeps the cash in hand. The management committee does not keep any records. The committee does not have any bank account and does not have any plan to open one. The park management committee in Foum Gleita has 10,400 UM in the form of cash-in-hand. It is to note that there is no bank in Foum Gleita. The nearest bank is located in Kaeidi which is 150 km from Foum Gleita. The user fees will eventually be used to maintain the vaccination park.

The FGDs with the villagers suggest that this has been a very successful and useful intervention from the program. Majority of the households are pastoralists or agro-pastoralists in the target communes and vaccination has always been an issue because there was no vaccination park within the proximity. The villagers had to walk their herds as far as 25 to 30 km for vaccinations.

There are some issues with the vaccination park in Hodh el Gharbi, which was constructed by ACORD with the funding support from the CANAL program. The park in Hodh-el-Gharbi (Kleyla) was poorly constructed. The heights of the fences are too low. During the FGD, the community informed the MTR team that the fence is so low that a bull can jump over the fence. In FY 2010 the program is planning to construct four animal vaccination parks, two in Guidimakha, one in Gorgol, and one in Hodh el Gharby.

The vaccination park has greatly benefitted the communities. Approximately 2,340 animals used the park for vaccination in Hodh el Gharbi, 667 in Guidimakha, and 2,080 animals in Gorgol. However the benefits may not be sustained if the park is not properly managed and maintained. The management committee is weak. Moreover, keeping cash-in-hand is a risky practice and the risk will increase overtime with amount. CECD-M is in the process of holding its general assembly in which it will review its policy and will start offering all of its services to the members in CANAL program areas. The program can take advantage of CECD-M and help opening an interest bearing account with CECD-M for saving the cash. A maintenance plan needs to be developed together with the VDCs in the catchment area, so the communities are aware about the plan and the funds available for maintenance.

Auxiliary veterinary assistants

Based on the needs identified in the Community Action Plans, the program has provided training to 58 individuals to develop them as Auxiliary Veterinarian Assistants (AVA) (26 in Hodh el Gharbi, 14 in Assaba, 12 in Gorgol and 6 in Guidimakha). The training was provided in several phases. The candidates for the training were identified by the community, based on the criteria set by the program. The second training was jointly organized with the Ministry of Rural Development and Environment (MDRE). The major topics of the training include diagnosing the common animal diseases, prescribing and administering medications for these common diseases, and keeping records of the transactions (cash, medicine stocks, etc.). The program provided 32 veterinary tool kits to the AVAs trained by the program.

Animal herding is the main livelihood strategy for a majority of the households in the communities that identified the need of AVAs. Information gathered during the FGDs with the communities suggests that access to veterinary services have increased in the communities in which the AVA is functional. Before the AVAs, the households had to go to the Commune

Center to get the vet services. The services were not only expensive but also the opportunity cost was high. However, only approximately half of the AVAs are functional. The AVAs are supposed to be getting a small incentive from the medicine sells as the prices were slightly marked up by the program, but the income has yet to be distributed among the AVAs. An AVA interview in Kow Malal village confirms that all of the animals except for the donkeys are vaccinated in this village and he has been providing veterinary services to the community members. However, he is losing interest as he has not received any benefit so far and hoping to get a salary from the program. Mohammed also expressed needs for more intensive training. It is important to note that many AVAs don't have the literacy skills, those who are literate can only read Arabic or Pular. These AVAs need more intensive training as well as periodical refresher training to update their knowledge and skills to be relevant as well as effective.

The selection of veterinarians found to be challenging.. Similar to all other selection processes in the program, the CANAL staff played a passive role in selecting AVAs. Instead of facilitating the selection process, the CANAL staff just informed people of the criteria and asked the communities to select the AVAs. As a result in many cases the quality and sustainability of service delivery was not the prime consideration. Eight of the AVAs are more than 60 years old, four AVAs that received the veterinary kit from the program now work in Nouakchott and Nouadhibou and two women AVAs got married and moved out of the target communes. A well facilitated selection process could have avoided some of the problems with the selection.

The quality of the training provided to the AVAs has improved with time. The first training to the AVAs was provided in 2008. The animator from ACORD and one veterinary assistant from government provided the training. The second training organized by ACORD to 18 AVAs was provided by a Veterinary Surgeon from the Ministry. ACCORD did not provide a medicine kit to any of the AVAs that it trained as a result none of them (26 AVAs) are currently functional.

Refresher training was recently organized (17 to 21 March 2010) by the program in Hodh el Gharbi region in collaboration with the technical services of the Ministry of Agriculture and Environment for the 26 AVAs. The training ran for five days and covered a number of topics including primary medical care for animals, use of common medicines, common pathologies, and management of cash register, stock, etc.

Currently the veterinary medicines that are used by the AVAs are provided by the program. Generally the veterinary medicines are expensive. In the past the Ministry of Agriculture was distributing veterinary medicines through CAE (Center for Medicine Supply and Breeding), which is no longer the case. The CAE does not have the budget to procure and distribute veterinary medicines leaving the entire sector on the hand of private companies. Based on the lessons learned from the previous year, the program recently procured veterinary medicines from a local vendor who is accessible by the AVAs. It is hoped that the vendor will establish linkages with the AVAs for its own business interest.

Vegetable Perimeters

The program has helped establishing 14 vegetable perimeters⁶ (2 in Gorgol, 5 in Assaba, 1 in Hodh el Gharbi, and 6 in Guidimakha) including a “market garden” in *Sollu* (Guidimakha). The market garden is a large vegetable garden in which vegetables are grown not only for consumption but also for commercial purposes. In most cases the community leased land from the village-head to establish the perimeters. Approximately 483 households (2,417 individuals) directly benefit from all of the vegetable perimeters. The program has provided seeds and fencing around the perimeters to protect the crops from animals. The program also provided irrigation facilities and hired an agriculture technician for the “market garden” in *Sollu*. In most cases, the vegetable perimeters are managed by cooperatives.

Figure 9: Water melon and onion crop in *Sollu* Perimeter



The vegetable perimeters have created opportunities for the communities to grow vegetables. All the perimeters with irrigation access have been used for cultivating vegetables both in the dry and rainy seasons. At least in one village (Kow Malal) the vegetable perimeter was constructed without ensuring water access. The discussion with the program staff suggests that during the planning process, another piece of land with access to irrigation was identified for vegetable perimeter but the land owner changed his mind in one year. When the program started to implement the project, the owner of the land refused to provide the land and the perimeter was moved to a place that does not have water access, a factor which significantly limits the vegetable production potential of the farm land.

Figure 10: Vegetable perimeter in Medine, Hodh el Gharbi



The quality and harvest from the regular vegetable perimeters and the one is *Sollu* is significantly different. The investment from the program on the *Sollu* perimeter is much higher compared to the other perimeters. There are approximately eight hectares of land inside of the perimeter. The program spent \$21,245 to establish the perimeter, including fencing materials, tractor rental to plough the land, an irrigation pump and necessary drainage, construction of irrigation outlets, and seeds. The program has also been providing a salary for a technician to provide technical support on vegetable production. Approximately 5,040 person

days of food-for-work employment was created to install the fences. Two cooperatives are jointly responsible to manage the perimeter through a management committee. The committee is comprised of ten male and ten female members. One responsibility of the committee is to record garden production and sales; however, this is currently done by the technician. At the

⁶ A perimeter refers to a community garden in which the program put fence around to keep the crop safe from animals.

time of MTR team's visit, there were onion, tomato, okra, egg plant, maize, and watermelon on the farm. No pesticides or chemical fertilizers are used on the crops. The vegetable crops are healthy and no signs of infestation and disease were observed. In general it was a well planned and well maintained garden. Discussions with the community suggest that the availability of vegetables in the local market has increased and the price of the vegetables went down with the production and marketing of vegetables from the perimeter. Proceeds from the vegetable sales revert to the cooperatives. The perimeter in *Sollu* is making a positive impact on vegetable availability.

The program took advantage of the available opportunities and the natural resources to make a relatively large investment in this perimeter compared to all other vegetable perimeters in which the program only provided the fencing material and labor cost to construct the fence. The land is fertile and located by the river made irrigation easily accessible throughout the year. However *Sollu* is not one of the poorest villages in the commune. Remittances are the main income source for a large proportion of the households. According to the focus group discussions with the community, approximately half of the community has year round food security and they are also direct beneficiaries of the perimeters. Therefore the perimeter is not as successful in targeting as it is in vegetable production.

The success of the perimeter will also depend on the management of the gardens after the program discontinues the technical support and exits from the area. The perimeter is controlled by two cooperatives. There are advantages and disadvantages of the cooperative approach. The risk is better managed when a household invests through a cooperative compared to making individual investments. However, in general there are not many examples of success stories of cooperatives. The CANAL program does not have a strategy or proven capacity to strengthen cooperatives. The vegetable perimeter as it stands now is a very lucrative property. Unless investment is made to strengthen the management committee as well as the cooperatives, future conflict around the control over the perimeter is inevitable.

Barrage and water harvesting dikes

The program has constructed a barrage in Boté in the Khabou Commune. The barrage is approximately 105 meters long and there are 30 hectares of land in the catchment area. The barrage has a sluice gate which allows maintaining the desired level of water inside of the barrage. As a result the land inside of the barrage can be cultivated in the dry season. The program hired an engineer to design the barrage, paid for cement, sand and iron rods for reinforcement, and used Food-for-Work to support community members' collection of rocks from the nearby mountains. The program also paid for the transport and hired masons.

Approximately 13,127 person days of employment was created by the program to construct the barrage. In addition to the food, approximately 42,282 USD was spent for materials, transportation, and technical support from engineers.

The barrage was completed in July 2009, so it is too early to understand the outcome or impact. However, certainly the barrage has created a huge agricultural potential in the area. The households that have land inside of the barrage will be able to cultivate an additional

Figure 11: Barrage in Boté



crop in their land. It is unclear how many food insecure households will be benefiting from this intervention as the program does not track the beneficiaries while it is important for the program to know the direct beneficiaries of this large investment.

In the first season, the barrage worked well. It was able to hold the water which facilitated cultivation. Some households planted seedlings to find out the seedlings are eaten by the animals. The Department of Rural Development and Environment extended its support to put a fence around the barrage land area to protect it from animals. The land is ready for cultivation, however, only a handful of households planted in this season while many decided to wait and observe the performance of the crop on the ground. The community is hopeful about an additional crop that can contribute to household income and food security. The MTR team spoke to Moima who has been living in the village for 30 years. She has a large piece of land inside of the barrage and is among the couple of households who took the risk and planted maize, cow-pea, okra, pumpkin, cabbage, and onion. She informed the MTR team that this is the first time that she has been able to plant vegetables and maize this time of the year (January - April). The target communes of the CANAL program lie in the “*Chemama zone*” or Senegal River Valley Zone, which has a rainy season from May to September. Moima added that her total harvest and yield have increased in this season, which could also be a positive impact of the barrage.

It is important to note that the benefits of the barrage will not continue without a proper maintenance plan and resources available to maintain the structure. The VDC is theoretically responsible to maintain it, but it lacks the necessary knowledge and resources. Currently, there is no plan to charge fees to the households who will benefit from the barrage. The VDC informed the MTR team that it can perform minor repairs, but cannot do anything if major repairs are needed. After the first rainy season, minor repair work was needed and the program provided necessary resources. This is not a sustainable approach. It is unlikely that the VDC will be able to mobilize financial resources for even minor repair work unless it charges user fees and creates a maintenance fund similar to the fund created for the vaccination parks. Moreover, even with the creation of the fund, it is unlikely that the community would be able to do major repair work. The Department of Rural Development and Environment Officer in Selibaby is excited about the potential impact of the barrage and is willing to offer technical services to Counterpart. The CANAL program may want to take this opportunity and engage in a contract with the department so it can take over responsibility of major maintenance work after the end of the program.

Eight water harvesting dikes (1 in Assaba and 7 in Guidimakha) have also been constructed by the program. These dikes retain water to facilitate irrigation. Approximately 898 households benefit from these dikes. There is no management committee or maintenance plan for these dikes. The program assumes that the VDCs will take care of them. The experiences from elsewhere suggest that this assumption will only hold true if the VDC members are active in initiating community projects that are not supported by the program and have a culture of doing activities collectively, and have access to resources.

Perimeters for cereal crops

Based on the need identified in the Community Action Plan, the program put fences around 10 large plots (5 in Gorgol, 4 in Assaba, and 1 in Hodh el Gharbi) that are used for cereal crops. The primary purpose of the fence is to protect the crop from animals. Approximately 760 households directly benefit from these cereal perimeters. These plots are used for cereal crop cultivation (maize and millet). Unlike the vegetable perimeters the land inside of the perimeter

are cultivated individually by households. The discussions with the communities with cereal crop perimeter suggest that these perimeters are making difference in terms of yield. Many households are energized to invest in crop production because of the higher yield potential. The program assumes that the individual households will maintain the fence for their own interest, but the experience in other countries does not support this assumption. Unless a maintenance plan and funds for maintenance are available it is difficult to maintain collectively owned program structures.

Figure 12: Poorly constructed fencing for cereal crop perimeter in Medina, Hodh el Gharbi



The quality of the fences in the perimeter is generally good. An exception, however, are fences constructed by ACORD where gaps of approximately 10 meters are found between two pillars. As a result there are places in which the pillars have already fallen (figure 12) leaving the rest of the fence vulnerable to fall off.

Water pumps and well for drinking water

The CANAL program has rehabilitated 11 water pumps for potable water in 11 communities (7 in Gorgol and 4 in Assaba) and three wells in Hodh el Gharbi. Approximately 1,598 households are potential beneficiaries of the water pumps while 542 households are potential beneficiaries of the wells. Out of the 11 repaired, nine pumps are currently functional. Two pumps in Gorgol went out of order after they were repaired. The water pumps and well that are functional are having a positive impact as the women from these communities now do not have to travel miles to access potable water.

Water is scarce in most of the target communities. In general the target households have a limited access to potable water. Although there are borehole pumps in most of the communities, the number of pumps are always inadequate compared to the number of households accessing these pumps. Therefore, the pressure on the pumps is tremendous and the breakdown of the pumps is common. Moreover regular maintenance of the pumps is a major issue. The technical know-how and the tools to repair the pumps do not lie within the communities. The communities need to hire mechanics to repair the pumps and the repair cost could be expensive. Since the pumps are not personally owned, there is a lack of initiative to repair them. In addition, the repair technicians are not often available because of their high demand. Experiences from other countries show that the maintenance of tube-wells or borehole pumps works better if the program trains few people from a cluster of communities and provides them with necessary tools.

Out of the three wells rehabilitated by ACORD, only one is working. The remaining two do not have water because the wells were not deep enough and the water table is lower than the bottom of the wells.

In addition to the well rehabilitation, the program used food for work to excavate two natural depressions in Gorgol that are traditionally used by animals to drink water. However these ponds are only useful in the rainy season, now there is no water in either of them.

4. Program Process Assessment

4.1 Program Management

The quality of a program often rests on the quality of the management systems, including the planning and decision-making processes and the people implementing them. Program management assessment typically examines the following elements:

- * *Vision* – How well has the vision for the program been articulated and imparted to staff?
- * *Leadership* – How effective has leadership been in directing the project toward meeting its goals?
- * *Planning* - How are plans developed, how comprehensive are they, and how well are they communicated at different levels?
- * *Decision-Making* – How effective has decision-making been made in the program relative to solving problems and capitalizing on opportunities?
- * *Communications* – How effective has communications been in the program?

A Coordination Unit (CU) based in Nouakchott with 11 staff, is responsible for the on-going management of the CANAL program. The CU is headed by the chief of party. A program coordinator is responsible for managing the program and maintaining the quality. The program coordinator supervises the technical coordinators, M&E coordinator and the office managers. Each of the four regional field offices are headed by an office manager (Chef du Bureau) who supervises the field animators, coordinate with the technical coordinators for technical support and maintain liaison with the government and NGO counterparts. The program also partially supports the CPI desk officer based in the Virginia headquarters office and a director with regional responsibilities based in Dakar.

The arrival of a new program coordinator in February 2009 has had significant impact in improving the program. She helped restructuring the program management in conjunction with a review of the role of technical coordinators. The program hired office managers for the field offices so that the technical coordinators can focus on providing quality technical support and field offices have been reorganized. Each of the field offices is now headed by an office manager who supervises the animators and responsible for program implementation while technical coordinators were freed from their supervisory role so they can focus on technical advice. The CU now holds quarterly coordination meetings with the technical staff and office managers, which were found to be effective. Overall coordination has improved and staff feel more comfortable in sharing issues with the senior management. In addition, there has been notable progress made in M&E.

However, the CANAL program still faces considerable challenges. A primary issue pertains to staffing. Personnel levels do not correspond well to the geographic location of villages and the distance from one village to another. There are three animators, one for each IR, for each region regardless its geographic spread. Similarly, all of the components do not require the same level of effort. As a result, it is a major challenge for program management to ensure quality services to all of the 40 sites in each commune. Moreover, covering all of the villages by motorbike is impossible in some of the communes. As a result animators spend less than adequate time in some communes. Although the program has established “Advanced Spaces” (an office in the commune with accommodation facilities), not all of the advanced spaces are adequately utilized. In places where staff can return to the regional office on the same day (i.e.

Guidimakha), the advanced space is not adequately used, whereas in places where it is almost impossible to make field visits from the regional office the advanced space provides an essential function (i.e. Gorgol). To increase field visits by animators, management plans to re-locate staff to the commune centers and improving the facilities in the field bases.

Until recently, there were only two commodity tracking system assistants (CTS) covering four regions. Each of the regions has at least one regional warehouse and 40 community warehouses. The program recently filled the remaining two vacant CTS positions. The monitoring and evaluation unit is staffed by the lone M&E coordinator.

In December 2009, the program organized a retreat with all program staff. The retreat was used to review the annual progress and potential impacts of the program were discussed. The long term vision was communicated to all staff and the program took the first step to develop an exit strategy following the exit strategy guidelines developed by FANTA

It is important to note that as a planning tool, the Indicator Performance Tracking Table (IPTT) is not very useful for setting annual output targets. It does not have output indicators for all of the different types of outputs being produced by the program. Moreover, in many cases the IPTT indicators do not reflect the actual project activities and there are critical outcome indicators missing. For example the IPTT does not have indicator to measure the most of the output and outcome level changes as a result of the activities undertaken for IR 1.3. IR 1.2 also misses a number of indicators (i.e. # of individuals received loan, average loan size, etc.)

4.2 Partnership

There are two levels of partnership in the CANAL Program. First, there are three major government and NGO partners. At the second level, CPI partners with a number of organizations for technical or logistical support. Among major partnerships, CANAL partners with the Ministry of Health to implement the Maternal and Child Health Nutrition (MCHN) component of the program, and with officials of the Ministry's Direction Regionale Action Sanitaire (DRAS). CPI works in 160 communities with local health posts and their chief nurses and doctors. Nurses supervise and monitor community health workers and village health committees' activities that aim to reduce rates of malnutrition and illness through improved childcare, feeding, dietary, hygiene and sanitation practices of child caregivers.

CPI also partners with the Agency for Co-operation and Research in Development (ACORD), an international NGO, to implement some of the program components in Hodh el Gharby. The third major partner is Caisse d'Epargne et de Crédit Djikké-Mutuelle (CECD-M), a local micro finance institution that provides micro-finance services to CANAL program communities.

In addition to the major partners, CPI partners with the Commissariat a la Sécurité Alimentaire (CSA). CSA provides the program with the storage and transport support as well as provides tax exemption documents for monetization and direct distribution of commodities. UNICEF provides tools for anthropometric measurements as well as treatment to referred cases of severe malnutrition.

Partnership with the Ministry of Health has been effective. DRAS officials located in the regional headquarters and in the Ministry are satisfied with the work done by CANAL program. There is no major issue in terms of partnership between CPI and DRAS, except for a temporary suspension of working with DRAS for a full year because of the military coup.

The CANAL program primarily works with the head nurses based in the health posts or commune hospitals. Generally there is one nurse in each health post that is responsible for six to 10 villages. The nurses do not have any transport to travel to the villages; moreover, the program does not work with all of the head nurses in a commune. The Ministry of Health only allowed the CANAL program to work with a limited number of head nurses. For example, there are seven health posts and one health center in Khabou Commune, where the CANAL program is working only with three health posts and the health center. Even in Gorgol the head nurses are spread thinly. Two head nurses are working with the program for the entire commune. Head nurses can only devote two to three working days per month to visit the villages to monitor community based IMCI and nutritional surveillance activities. During this time there is no health care provider available to the villagers. The program provides transport to facilitate these visits and also pays a monthly honorarium to the head nurses. The CANAL program participates and facilitates the immunization campaigns which are well appreciated by the DRAS. The program has effectively complemented and enhanced capacity of limited Ministry services.

Partnership with ACORD has been problematic. There has been misunderstanding between ACORD and CPI from the initial implementation phase. At the design phase of the MYAP, ACORD provided some logistical support to CPI with a hope that ACORD will be a major partner in implementation with much more responsibilities and resources while the MYAP proposal suggests a limited role of ACORD in program implementation. According to the MYAP proposal, *“ACORD will provide technical and training expertise and services in areas of community participatory awareness training, community analysis and needs assessment, and small enterprise development.”* During the implementation phase, ACORD was given a much smaller role in program implementation in Hodh el Gharby. This has fueled tension between the two organizations. After the first year of implementation, CPI found the quality of activities produced by ACORD poor and unacceptable and eventually the level of resources allocated for ACORD was further reduced. This has further increased the tension between the two partners. During the MTR, the Regional Director of CPI for West Africa was in town to mediate the tension between the two organizations. ACORD does not contribute its resources in implementing activities of CANAL program. The program pays its overhead costs in addition to program activities.

Partnership with CECD-M is reasonably smooth, however, there are number of issues yet to be sorted out between CPI and CECD-M. CECD-M is a small organization with extremely limited capacity. For all of its logistical needs CECD-M completely depends on CPI. The first contract that was signed between CECD-M and CPI was only for seven months, expiring in October 2009. The contract has recently been renewed with provisions to help CECD-M establish offices in the program communes and increased access to CPI transports. CECD-M does not contribute any resources to the program activities. In addition to the program costs, the program also pays the overhead costs to CECD-M. What will happen to the micro-finance credit fund provided by the CANAL program has yet to be decided jointly between Food for Peace and CPI.

The CPI assumes the entire responsibility of the program while the partners do not have a shared sense of responsibility for CANAL as a whole. Each partner (CECD-M and ACCORD) is only responsible for the activities it has been implementing. As a result, the program is missing the benefits of complementary activities offered by program partners.

4.3 Community-Driven Processes

The CANAL program has used participatory needs assessment to jointly identify the needs of the communities, prioritize them and develop a community action plan. The participatory process has been challenging, however, because of several factors. First, the staff that facilitated the process did not have adequate training and facilitation skills. Most of the community members in the program area do not have literacy skills. Some communities have a few members who can either read Pular or Arabic, while the staff used French to document the needs and developing the plans. Experience in other countries show that use of graphics and interactive tools work much better in the communities that do not have literacy skills. Use of graphics or interactive tools (i.e. participatory resource maps, etc.) allow the communities to understand better the critical issues, record them in the way they understand, prioritize them and develop plans that they understand and for which they have a sense of ownership. In this way, the process has the potential to develop the capacity of the community to identify problems, systematically analyze them and develop a plan based on the analysis instead of just perception.

Each of the program communities have a community action plan written in French which has been developed based on the participatory needs assessment. Many communities visited by the MTR team do not have any French literate member and hence do not know exactly what the plan contains. Some members assume it has a list of infrastructure that they have identified in 2008.

Because of the significant delayed start of the program, the management wanted to do things quickly to catch up with the time that was missed and to start the implementation of the activities on the ground. However, it is also important to do the capacity building process right so that communities can take in charge of the development activities that have been initiated by the program to continue after the project ends. The likelihood of sustainability could have been improved if the communities were capacitated to use analytical processes to analyze their problems, identify their opportunities and to access and mobilize resources to address the problems or capitalize on opportunities.

4.4 Program Integration

The evaluation team examined two levels of integration relative to the CANAL program to determine how well the program was capitalizing on opportunities for synergizing impact. These include integration within CANAL across the IRs and integration with other programs external to CANAL. These are discussed below.

Within the CANAL across IRs

The CANAL program has a common target group for the most part across the IRs. MCHN targets families with pregnant women or lactating mothers or children under 5 if moderately malnourished. In addition, the Health Facilitators (RCs) provide health education to all women in the community. Anyone from the target community with an idea of an economically viable project can get a loan if there are enough resources available to CECD-M. The community development projects are designed to benefit the majority of the households in the target areas and many of these activities will be implemented in a number of villages in 2010 and 2011.

However, there are opportunities to enhance program synergy by purposively linking beneficiaries from one component with another component. For example, health workers who sell medicine now indicate a desire to expand their business through a loan; a household that has gained access to an additional crop cycle as a result of the barrage constructed by the program needs a small loan to buy inputs.

With other programs, especially those implemented by the partner organizations

The evaluation team looked briefly at how well CANAL is capitalizing on opportunities to leverage impact or use resources more efficiently by coordinating with other programs being implemented in the same geographic areas by CANAL partners or other agencies. Unfortunately there are not many organizations working in the CANAL program areas. In fact, this was one of the criteria used to identify target areas. There are, however, opportunities to expand partner integration. In addition to loan servicing, CECD-M also promotes savings which is critical to develop resilience of the households in mitigating food insecurity shocks. There were discussions between CPI and CECD-M to start promoting savings in the program areas. However, in the past CECD-M has been reluctant to promote savings for a number of reasons. The first contract between CECD-M and CPI was only for seven months and CECD-M did not know with certainty whether it will continue its operation in CANAL program areas. Secondly, it does not have a safety deposit box or an office in the commune to safely keep the deposits from the borrowers or saving households. The CECD-M branch office is located in Kaeidi (Gorgol) and Selibaby (Guidimaka) town which are far from the program communes. With the renewed contract, the CANAL program has allocated resources to CECD-M to establish an office in the program communes with safety box and will encourage savings.

In some of the program areas, the Department of Rural Development (Ministère du Développement Rural) is willing to cooperate with CPI. This department has agronomists, veterinary surgeons, civil engineers and other technical capacity that the program currently lacks. Currently the CANAL program does not actively coordinate with the department in its community development activities. The MTR team understands some of practical challenges, however, CPI can certainly take advantage through active engagement with the department in getting technical support in areas where the department is cooperative. A formal agreement with the department of Rural Development can also increase the likelihood of continual maintenance of some of the infrastructures built by the program after the program will exit from the area.

4.5 Financial Resources

Table 5 summarizes the current situation relative to financial resources. If the current ending date for the CANAL program of September 30, 2011, continues to stand, the program burn rate should be around 68 percent.

Table 5: Cash Expenditure Summary Projected Through the February 2010 (US\$)

Cost Center	Monetization proceeds	202e	ITSH	Cost share	Total
PCU operating expenses	962,261	98,686	175,539	-	1,236,486
HQ in Virginia operating expenses	-	311,035	71,746	-	382,781
CECD-M operating expenses	59,000	-	-	-	59,000
ACORD operating expenses	33,123	-	-	-	33,123
CPI project expenses through Feb 2010	2,738,500	15,435.30	472,877	13,794,592	17,021,404
ACORD project expenses through Feb 2010	136,473	-	-	-	136,473
CECD-M project expenses through Feb 2010	356,202	-	-	-	356,202
Total Direct Costs	4,285,559	425,156	720,162	13,794,592	19,225,469
NICRA for CPI	1,199,956	119,044	201,646	0	1,520,646
Total expenses	5,485,515	544,200	921,808	13,794,592	20,746,115
Total LOA budget at time of approval	11,002,598	827,065	2,049,068	26,376,064	40,254,795
Percent of LOA budget spent by end Feb 2010	50%	66%	45%	52%	52%

As table 5 indicates, the CANAL program is under-spent on monetization proceeds, 202e, ITSH and cost share. This is primarily because of delayed start. If the program is extended to September 2012 through a no-cost extension, however, the burn rate should be around 57 percent and in that case the program is on track with monetization proceeds, ITSH funds, and cost share funds, while still under spent on 202e funds. The program should be able to cover all of the costs with the no-cost extension.

There has not been any cash flow problem since the startup of the program. Cash flows from CPI office in Nouakchott to the field offices and partners have been reasonably effective. There are occasional delays at the clearinghouse, but generally the process of either advance/liquidation with ACORD and CECD-M has worked reasonably well. CPI quarterly reviews the progress and expenses submitted by the partners before making the second advance.

It is important to note that CECD-M field staff tend to carry large amounts of cash (sometimes more than \$4,000) in hand. This is because there is no safe box at the commune level. However, this is an extremely risky practice that should be discontinued. CPI finance manager does not have any financial control over CECD-M and does not feel he has responsibility over this practice. To address this problem, CECD-M has procured two safe boxes to install in two commune offices. However, an office space has yet to be identified and leased in. CECD-M will eventually install safe boxes in all of its commune offices.

One final point related to financial management is important to mention. Although CPI Head Quarters annually remotely conducts financial audit, there has not been any external audit done by an independent audit firm since the startup. It is a good practice to commission external audits periodically to identify issues as well as review the financial management system so that any problems can be identified and addressed throughout the process and before they escalate.

4.6 Commodities

Table 6 summarizes commodities for the CANAL program. Overall, monetization has not been problematic. Cost recovery has been less than originally projected because of the local market and fluctuating world prices for hard red spring wheat. The local demand for Soft Red Wheat is extremely limited. As a result, the cost recovery for the only consignment of Soft Red Wheat was significantly lower than what one would expect.

Table 6: LOA Commodity Summary (MT)

	Distribution	Monetization	Total
FY 2006 (actual)	0	9,200	9,200
FY 2007 (actual)	191.31	7,110	7301.31
FY 2008 (actual)	791.809	5,650	6,441.809
FY 2009 through Feb 2010	458.743	6,810	7,268.743
Cumulative disbursement through February 2010	1441.862	28,770	30,211.862
Original proposed LOA quantities	2,083	53,800	55,883
Percentage of LOA projection achieved through FY 2009	69.22%	53.48%	54.06%

The underutilization of distributed commodities over the life of the CANAL as it appears in Table 6 is related mainly to the delays in startup of the program. However, the program does not seem to have problem to cover its costs and distribute the commodities over the life of the program if it gets one year no cost extension.

There has not been any pipeline break since the startup of the program. Monetization is done through a competitive process. A committee comprised of the CPI Commodity Management Coordinator, a USAID representative and a representative from CSA oversees the monetization process. The call for tender is published in popular daily newspapers.

Table 7 summarizes the monetization transactions that have been completed in the CANAL program. Cost recovery was highest (80.3 percent) on Hard Red Wheat for the consignment that arrived on May 13, 2008 and lowest (44.12 percent) on Soft Red Wheat.

Table 7: Monetization Transactions, 2006-2009

FY	CF date	Arrival	Commodity	MT	Buyer	C&F Value/MT	Price received/ MT	Cost recovery
2007	27/06/07	26/12/07	HRW	9200	GMM	\$346	\$223	64.5%
2008	11/03/08	13/05/08	HRW	7110	SPAC	\$559.8	\$450	80.3%
2009	02/10/08	02/02/09	SRW	5650	SGTC	\$490.6	\$216.4	44.12%
2010	30/12/09	25/03/10	HRW	6810	GMM	406	270	66.5%

Table 8 shows commodity losses to date over the life of the CANAL program. Most of the losses incurred in the ocean. The inland losses account for 0.35 percent which is within the industry standard⁷.

Table 8: Commodity Losses, 2006-2009

FY	Amount purchased	Ocean loss	Amount received in country	Inland losses	Percent loss
Monetized commodities					
2007	9,200	--	9,200	--	--
2008	7,110	--	7,110	--	--
2009	5,650	104.5	5,545.5	--	1.85%
through March 2010	6,810	--	6,810	--	--
Total through FY 2009	28,770	104.5	28,665.5	--	0.36%
Distributed commodities					
2007	309.748	0.399	309.349	0.467	0.28%
2008	496.1	5.726	490.374	1.423	1.44%
2009	978.313	5.264	973.049	3.778	0.92%
through March 2010	508.409	0.625	507.784	2.395	0.59%
Total through 2010	2,292.57	12.014	2,280.556	8.063	0.88%

The program has an agreement with *Commissariat a la Sécurité Alimentaire (CSA)*, a department under the Ministry of Food Security that allows its warehouses to store the commodities for distribution. CPI requests quotes for transportation and the lowest bidder gets the transportation contract for each consignment. Although CSA has been the lowest bidder in most cases, at least there was one instance in which a private transport company was the lowest bidder and got the contract. The contract covers any damage during transportation so the transport company is responsible to pay for the damage.

All regional warehouses are reasonably well managed. The warehouses are clean and well ventilated. The sacks are stacked on pallets.

Figure 13: Regional warehouse in Sellebaby, Guidimakha



The bin cards are updated and are kept by the stacks. The warehouse uses first-in-first-out method. Warehouse records show that the warehouse was inspected in the past three months and the CTS signed on the bin cards after counting the sacks. In terms of documentation, and maintaining the registers, there has been significant improvement made based on the recommendations from FFP. The ledgers are up to date and losses have been recorded. Although no fumigation report was found, both the warehouse manager and the CTS

confirmed that fumigation was done before any new consignment gets into the warehouse. The

⁷ Losses between 0.1 to 0.5 percent are typical in most DAPs or MYAPs.

warehouse is shared with WFP but the commodities are separately stacked and can easily be identified. There is no sign of infestation.

The commodities are transferred from the regional warehouses to the community warehouses on a quarterly basis. The community warehouses are small mud huts located in the village. Some of the warehouses are in poor condition and the commodities kept in there are vulnerable to water damage. Although commodities are kept on pallets in most of the warehouses visited by the MTR team, at least in two instances the commodities were found on the ground kept on a plastic sheet or a piece of iron sheet as the warehouse did not receive any pallet. The community warehouses do not

maintain any bin card and it does not keep any record of balance hence the warehouse keeper cannot tell the remaining balances unless it is an intact sack. The documents are written in French, although many communities do not have any French literate member. The warehouse keeper signs on a receipt when she or he receives a consignment and keep one copy with her or him. In most cases she or he cannot read so do not really know what she or he was signing. In many cases, the warehouse keeper does not have literacy skills though there are literate members (either Arabic or Puler) in the community. CPI did not give any measuring tools to the warehouse keepers, requiring them to borrow weighing scales from a local business or use a plastic mug to approximate the weight. The CTS does not physically monitor the distribution so does not know what is happening. Unless a community states that there is a problem in distribution, there is no indicator in place to monitor proper distribution

Figure 14: Commodities are not stored on pallets in the Community warehouse in one village in Khabou Commune



The program does not systematically monitor end use of the commodities hence does not know whether they are consumed or used otherwise. The focus group discussions with the communities suggest that most of the commodities are consumed. However, households share the food among the members so the malnourished child or pregnant woman gets a portion of the food that she or he receives from the program. A small proportion of members mentioned that the children could not consume CSB as they cannot afford sugar.

4.7 Human Resources

In general staff retention in CANAL program is excellent. This is primarily because CPI's compensation package is competitive. Except for the senior managers, most of the staff joined the program at the beginning are still continuing with the program. However, identifying qualified people to fill the vacant positions or newly created positions found to be challenging. In general there is a shortage of skilled staff with developmental experience in Mauritania. Moreover, CPI does not publicly advertise for vacant positions to avoid unwanted external pressures. Although this practice may reduce some external pressure, it also limits CPI's ability to attract a greater number of qualified people.

At the startup of the program, when CPI filled most of the positions, it advertised in all national newspapers in Mauritania with qualifications required for the positions and general

responsibilities. Although a clear job description was available for the health coordinator position, job description was not developed for other positions at that time. As a result, some of the animators hired by CPI do not have the right background (i.e. micro-finance animators). CPI does not have a staff development plan and has yet to develop a systematic approach to address the skill gaps of its staff pool. A well developed and properly implemented staff development strategy is particularly more important in a country like Mauritania where identifying staff with adequate skill is a major issue.

The CPI Mauritania recently redefined the existing job descriptions and developed job description for many other positions. However, still there is confusion about the roles of the staff and the line of communication. For example despite of the job descriptions, the animators are not clear about their roles. The staff in the field including some office managers do not have a clear understanding about whether an animator can directly communicate with a technical coordinator or vice-versa.

The performance management system is in the development process. The organization has introduced a performance assessment system through annual self-performance assessment. This is still in the development phase and staff in general are not quite satisfied with the system. The performance appraisal form is designed based on structured quantitative survey format. Some of the performance indicators are subjective and it does not require staff or the supervisor to provide specific examples of success or failure. The performance assessment is tied to the salary increment hence staff are concerned about the quality of assessment tools and the way they have been implemented. Moreover, if a skill gap is identified as a reason for underachievement, the organization needs to develop a strategy to assist the staff with targeted training or through providing coaching and mentoring support to minimize the skill gaps.

4.8 Other Program Support

In general, program support for CANAL has been reasonably effective given the context at the moment. Getting food and materials to the regional offices and program sites have never been a major problem. The program procures most of the items in Nouakchott in bulk. Each of the Regional Offices has two four-wheel vehicles including a pick-up truck and three motor bikes which seem to be adequate. The program never suffered a delay because of logistical problems.

4.9 Environmental Monitoring and Impact Mitigation

The CANAL program has hired an environmental consulting firm to conduct annual monitoring of the activities that have been identified as negative determination with conditions in the Initial Environmental Examination (IEE). The IEE conducted at the design phase of the MYAP identified the following activities and listed them as a deferral which means the following activities might have a negative impact hence a further IEE is needed to determine whether these activities are of a significant impact or scale.

- Reforestation Activities
- Well digging Activities
- Pesticide-free Vegetable Gardening Activities
- Latrine Rehabilitation or Improvement Activities
- Waste Collection Activities
- Animal Fattening Activities
- Infrastructure Rehabilitation Activities (e.g. Health Infrastructures)
- Health IEC campaign

In FY 2009, the program dropped “waste collection activities” from its list of intervention. An amended IEE has been conducted and the above mentioned activities have been identified as negative determination with condition on the grounds of a limited scale of implementation and the CANAL program will use recommended mitigation measures contained in Guidelines for Small Scale Activities in Africa. The consulting firm has been annually monitoring the potential environmental impact and the reports for 2008 and 2009 are available, which are approved by the FFP.

5. Special Areas of Investigation

5.1 Targeting

The program originally proposed to cover 46,800 direct beneficiaries and 156,500 indirect beneficiaries. The target was recently updated in last PREP. The revised MYAP LOA targets are: 49,000 direct beneficiaries and 99,100 in-direct beneficiaries accounting for a 10 percent population growth and migratory trends.

Approximately there are 14,037 households⁸ in the target communes and the approximate population size in the target communes is 90,100. The program does not systematically track the number of beneficiaries for all of its interventions neither it tracks the households hence it is impossible to provide the actual number of individuals or households benefiting from the program.

According to the data provided by the M&E coordinator, the MCHN component has provided services to 23,956 individuals. According to the M&E data 7,415 people directly benefiting from the community development component of the program. Many of the community development beneficiaries are also listed as beneficiaries under MCHN. The program does not know exactly how many individuals received direct benefits from the micro-credit component; however the documents suggest that 161

⁸ Data provided by the M&E Coordinator.

individuals received a loan from the program and 75 cooperatives received loan from the program. There are number of individuals that borrowed through the cooperatives but the program does not know how many. Another 960 beneficiaries are beneficiaries of income generating activities supported by the program.

In practice, there are a wide range of beneficiaries given the range of activities in the CANAL program. Some people benefit from activities targeting them specifically, such as, for example, pregnant and lactating women and moderately malnourished children.

Some activities are designed to benefit entire villages such as the community infrastructure interventions. Although most of the beneficiaries of the CANAL program are food insecure, the program does not have specific tools or approaches for ensuring that it targets the food insecure households. There is evidence that food secure households are also getting direct benefits from the program, although the proportion of these households is fairly small. Significant numbers of women do participate in CANAL program activities, but the program does not specifically target women-headed households.

It is important, though, for the program to ensure that extremely vulnerable households who either do not have a pregnant or lactating woman in the household or do not have adequate labor capacity to participate in Food for Work are targeted.

5.2 Sustainability

In order to ensure that the impact of the CANAL program is sustained beyond the life of the program, the organizations, services, and relationships that have been strengthened or established by the program need to be sustained. The organizations that should be sustained beyond the life of the CANAL to maintain impact include, for example:

- ▶ The VDCs, to be able to mobilize resources and maintain the various community infrastructure improvements made by the CANAL program;
- ▶ The management of the IGAs that were provided by the CANAL program so that the grind mills, shops, and grain banks will be managed effectively.
- ▶ The cooperatives, to manage the shops and other IGA activities established by the program; and
- ▶ The micro-finance institution, so that the communities will have continued access to affordable small loans.

There are also numerous services that should be sustained including, for example:

- ▶ The Community Health Workers, to continue to provide Community based IMCI services, referral services and work as a village medicine store;
- ▶ The Auxiliary Veterinary Assistants, to continue providing veterinary services to the communities;
- ▶ Knowledge dissemination and access to the alternative nutrient rich food sources so that the community continues to combat malnutrition without the food ration; and
- ▶ The Health Facilitators, to continue to provide need based growth monitoring services and health education sessions.

The services provided by the CHWs will likely to continue if the program links the CHWs with micro-finance so that they can expand their medicine business and find a place in which she/ he

can put her/ his medicine box and provide services. Currently the amount of money that the CHWs earn from medicine sells is insignificant and inadequate to motivate an individual to keep providing the services. The CHWs claim now that a significant portion of their daily schedule goes for voluntary work. Currently the CHWs get food rations, which they consider as motivation to continue their services. However when the ration ends with the program, many CHWs may discontinue providing services unless income from medicine sales increases. Although, the Auxiliary Veterinary Assistants are also supposed to be getting some income from medicine sales, they have yet to receive their share. These service providers may also discontinue if they do not see some income coming from the services that they provide.

To a large extent, the focus in CANAL has been on construction, or building the hardware. The program got off to a late start because of host country agreement and wanted to have some visible impact on the ground as soon as possible. Building things is usually done more quickly than building human capacities and changing behavior. Apart from a few excellent cases (perimeter in *Sollu*), there has been relatively little human capacity building, or the software, in the CANAL program around the construction that has been undertaken. Consequently, there are questions as to whether the hardware will be effectively maintained, repaired or replaced over time.

In terms of the specific organizations, services and relationships that are mentioned above, unless additional investments in human capacity building as well as implementation strategies to make these sustainable are implemented, many of these are likely to dissolve after the CANAL program ends.

5.3 Monitoring and Evaluation

The monitoring and evaluation function in the CANAL program rests with the monitoring and evaluation coordinator. There is no other staff in the program who is primarily devoted for M&E activities. The program coordinator provides guidance to the M&E coordinator. Significant progress has been made in setting up a monitoring and evaluation system as evidenced by the different survey reports and monitoring reports produced by the program. However, the M&E component is yet to be functional and integrated to the decision making process.

The animators are primarily responsible for data collection. The nutritional surveillance data that are being collected monthly are forwarded to the M&E coordinator. All other information is forwarded to M&E coordinator on a quarterly basis. The nutritional data are analyzed using EPI Info and all other data are tabulated with a summary forwarded to the coordination unit. The M&E coordinator goes out to the field on a quarterly basis to check the quality of nutritional surveillance data as well as collect primary information (mostly output level) to track community development activities and measure the performance of TBAs and CHWs using a list of indicators. For nutritional surveillance data, if a major difference is identified, the M&E coordinator sends this information to the field offices and technical coordinators with his recommendations.

The M&E coordinator was able to identify the major quality issues related to nutritional surveillance data however the field offices do not see much value added from M&E in improving program performance. This could be attributed to an inadequate number of M&E staff and the lack of integration of M&E with the rest of the program components.

The Indicator Performance Tracking Table (IPTT) is one of the key tools that MYAPs use to plan implementation and track progress. The CANAL IPTT is not a very useful tool in that it does not

have indicators for the full range of outputs and outcomes being produced by the program. Moreover, several targets in the IPTT appear to have been unreasonably ambitious as a result of having no reliable primary or secondary data on which to make more reasonable estimates. There are also indicators in the IPTT that are not quite relevant to measure the outcome level changes that are produced by the program.

Food for Peace reviewed the IPTT and recommended in May 2008 to include standard indicators to measure nutritional status, food provisioning, dietary diversity, and behavior change indicators. In addition, it also recommended including indicators to measure adoption of agricultural techniques, mitigating shocks, early warning systems and safety nets. Again some of the indicators proposed in the issues letter are also not quite relevant to the CANAL program. For example, the program does not have activities to develop an early warning system or develop a safety net. Although a revised IPTT was submitted with the FY 2008 Results Report, it did not address these issues because it was not clear to the program management at the time which of the activities the program would be doing and the activities that the program cannot do.

A program baseline was carried out in September 2007 by a local consulting firm. However, the results did not provide sufficiently reliable data or measure the correct indicators in order to compare results at a later date. Moreover, the sample was designed to be representative at the regional level, while the program is working only in one commune in Gorgol, one commune in Guidimaka, two communes in Hodh el Gharby and three communes in Assaba. This significantly limits the ability to show any changes as a result of the program interventions. The baseline survey design also did not review the IPTT, hence it lacked a large number of key impact and outcome level indicators. The baseline study reports significantly lower malnutrition rates, inconsistent with other credible surveys that have been conducted in Mauritania, and as a result, the baseline information has been discounted and has not been used for decision-making, such as, for example, to refine the project strategies or revise targets. Table 9 illustrates this problem in which comparisons were made for the stunting and underweight prevalence rates between the CANAL baseline-2007, the 2008 Rapid Nutritional Assessment, the Multiple Indicator Cluster Survey-2007 and the 2001 Demographic and Health Survey. All of the studies used the same NCHS reference population, however, the age categories differ across studies. CANAL baseline and the Rapid Nutritional Assessment Survey collected anthropometric data from children ages 6 to 59 months while the other two studies collected data from children ages 0 to 59 months.

Table 9: Comparison of the CANAL Baseline to Other Nutritional Assessments

Study	Area	Stunting <-2 Z score	Underweight <-2 Z score
CANAL baseline 2007 ⁹	Assaba & Hod el Gharby	23.1%	22.3%
	Gorgol & Guidimakha	25.9%	23.9%
Rapid Nutritional Assessment, 2008 ¹⁰ (UNICEF)	South east (Hod el Gharby)	36.6%	40.4%
	Center (Assaba)	32.1%	39.1%
	South River (Gorgol & Guidimakha)	21.9%	30.5%
Multiple Indicator Cluster Survey 2007 ¹¹ (World Bank)	Hod el Gharby	30.6%	32.1%
	Assaba	30.7%	36.9%
	Gorgol	30.8%	40.7%
	Guidimakha	34.5%	41.8%
DHS 2001 ¹²	South east (Hod el Gharby)	36.0%	34.5%
	Center (Assaba)	40.6%	34.9%
	South River (Gorgol & Guidimakha)	38.8%	37.1%

The Multiple Indicator Cluster Survey results are representative to the regions while the Rapid Nutritional Assessment and DHS study disaggregated the results by zone. The South East Zone includes Hod El Charghy and Hod El Gharby, the Center zone includes Tagant and Assaba, and the South River Zone includes Trarza, Brakna, Guidimakha and Gorgol. Meanwhile, the CANAL baseline created two clusters by combining Assaba and Hod el Ghaby, and Gorgol and Guidimakha. Therefore it is not possible to make a true comparison between the studies. The results presented in Table 9 do give some indication of the reliability of the CANAL baseline results. The prevalence of malnutrition as reported by CANAL baseline is much lower than the three other studies. It is important to note that CANAL is working in the vulnerable communes in each of these regions and food insecurity was one of the indicators used in targeting. Therefore, the level of malnutrition in the program communes are expected to be higher compared to the overall rate of malnutrition for the entire zone.

An alternative to the baseline results could have been calculating z-scores using anthropometric data that are collected by the program as part of screening process to identify moderately malnourished children. However, these data are unreliable because of the high degree of measurement error. Therefore, the baseline results cannot be used to make pre and post comparisons in measuring the impact of the program at the time of final evaluation. Rather the final evaluation needs to identify communes with comparable characteristics and use them as control communes to measure the impact.

In 2008, the program conducted a short survey to collect information on food security including household dietary diversity index, household food provisioning and coping strategy index. The survey used a two-stage cluster sample with 33 clusters selected using Probability Proportional to Size (PPS) and six households from each cluster selected using a simple random sampling technique. This sampling strategy was effective in producing comparable results to 30 x 30 cluster samples with slightly larger confidence intervals. However, there are some constraints regarding validity of these results due to possible respondent misinterpretation at the time of interview or computational errors in creating the index. Therefore, these results also should not be used to compare with the end-line results.

⁹ Age group 6 to 59 months.

¹⁰ Age group 6 to 59 months.

¹¹ Age group 0 to 59 months.

¹² Age group 0 to 59 months.

In 2009, a modified Knowledge, Practice and Coverage (KPC) survey was carried out by the program. The data were collected from a statistically representative sample of women with children less than 24 months in program areas. The purpose of the survey is to collect information on a number of IPTT indicators related to MCHN knowledge and change in behavior. Except for the exclusive breastfeeding, the results for most of the indicators were significantly lower than the baseline survey results. The program attributed this difference to the inaccuracy of the baseline and LQAS results. The higher achievement in exclusive breastfeeding was attributed to the BCC topics that were focused on exclusive breastfeeding more so than other topics.

5.4 Knowledge Management

The concept of knowledge management comprises a range of practices used by an organization to identify, document, and communicate best practices and lessons learned that emerge from the organization's work as well as to identify, obtain and adapt relevant best practices and lessons learned that have been generated by other organizations. It is basically disseminating knowledge out, as well as channeling knowledge in, with the purpose of making relief and development investments more effective or efficient.

The CANAL program is generating valuable lessons learned and has been able to adapt approaches based on field experience. CPI makes an internal effort to gather information from external sources in improving the quality of program.

CANAL is in the process of streamlining its databases to better manage information. A web portal has been created to facilitate access to information for all staff based in the field with internet access. This web portal will be a part of overall information system. Currently, it is planned to limit portal access to program staff requiring a password to access. If the program opens access to the portal by other organizations, the portal can be used to disseminate information.

5.5 Gender

It is estimated that approximately 35 percent of the CANAL program participants are female, with the proportion varying by community and type of activity. The true participation of females in the program is overshadowed by a large percentage of male food-for-work beneficiaries. For example, 87 percent of the beneficiaries of food-for-work (FFW) are men. Without accounting for FFW beneficiaries, approximately 64 percent of beneficiaries are women. The program has been less effective at systematically ensuring that female-headed households participate, especially in activities that tend to be more male-dominated such as FFW.

Female staff who work for the program stated that the work environment is supportive of female staff. As mentioned in the section on Human Resources (Section 4.7), staff retention is very high, while hiring qualified staff is a major challenge, particularly for female staff. There has not much scope in the program to hire new staff as the retention rate is very high. The program did make attempts to attract female staff for the vacant positions but as discussed in Section on Human Resources, (Section 4.7) the organization does not advertise to recruit staff limiting its ability to spread the message about openings. Moreover it is not easy to find staff who have

experience in the relevant field. Among qualified staff, many do not want to be placed in the field.

5.6 Capacity Building of Local Partners

The program has provided training to the head nurses to build their capacity in providing clinic based IMCI services. In addition, training was also provided to health workers (ASCs) and health facilitators (RCs) to build their capacity in providing community based IMCI services. TBAs were trained by the program to provide improved birth attendant services. Trainings were also provided to CECD-M staff on micro-credit management. However, the partners need more capacity building support. The capacity of CECD-M is extremely limited and without providing capacity building support, the plan to expand the micro-finance services could be detrimental.

6. Program Impact Assessment

6.1 Focus of the Mid-Term Evaluation

As a mid-term evaluation, this exercise for the CANAL program is a formative evaluation intended to identify what is working and what is not working in the program. It provides an opportunity to make changes to the program for the remaining life, expanding activities that work, filling in gaps and scaling down activities that appear to have little impact. Previous sections have documented the observations of the evaluation team on program activities and outputs, program processes and topics that merited special attention from the evaluation team. The following sections describe the expected impact of the program and summarize what is working or not working under each IR.

B. IR 1.1: Improved Caretaker Practices in Health, Nutrition and Hygiene

The strategy of the CANAL program under IR 1.1 is to build human capacities through maternal child health and nutrition interventions. The health and nutrition activities are expected to have impact on food insecurity primarily related to utilization of food, as well as to increase access to food for the children that are identified as moderately malnourished.

6.1.1 Potential for Significant Impact of MCHN

The CANAL program under IR 1.1 has invested mostly in developing the capacity of head nurses and the health workers so that the health posts and health centers can better manage childhood illnesses as well as to establish an integrated management of childhood illness system in each of the program communities. Most of the communities visited by the MTR team highly appreciated the services provided by the health workers. Some over-the-counter medicines are now available and accessible in the community. The villagers do not have to travel miles to get treatment for fever, malaria, diarrhea, respiratory infections and other diseases. The price of the medicine is affordable. Communities perceive that the incidence of diarrhea went down. However, the program does not track incidence of diarrhea so the actual extent is unknown. The women that gave birth to a child mentioned that the health facilitators helped to cut the umbilical cord of the newborn using sanitized tools. As a result, the incidence

of infection declined. Although there is no hard data to justify this claim, this practice will indeed have an impact on reducing infections.

The program also provides health education sessions to the community members to communicate hygiene and health related messages. A significant percentage (42%¹³) of mothers exclusively breastfeed children ages 0 to 6 months. The rapid nutritional survey jointly conducted by the Ministry of Health and UNICEF in 2008 reported the percentage of exclusive breastfeeding ranges from 11 to 18 percent in the zones in which CANAL program communes are located.

One of the major activities under this IR is nutritional surveillance. Moderately malnourished children are enrolled in growth monitoring for a period of six months and they receive rations. Certainly the ration has some impact in reducing malnutrition. Visibly the MTR team did not see many malnourished children in the community, but the extent is unknown because of widespread measurement errors. If the program does not promote strategies to develop long-term solutions to malnutrition, the nutritional gains may not sustain after the end of program.

There is no toilet in most of the program communities. Sanitation is a major problem and this is an area that is not adequately addressed by the program. The poor sanitary behavior is a major cause of diarrhea, which is a common cause of malnutrition. The program only built latrines in few schools. There are not many examples in Mauritania or elsewhere suggesting a large number of households are constructing latrines at home because children are exposed to a latrine in school. Experience in other countries show that a three-prong strategy is needed to change households' sanitation behavior.

- a) Educating the community on benefits of having a latrine and how water or vector borne diseases spread
- b) Develop a low cost but efficient model of toilet
- c) Improve households' accessibility to a toilet

At this stage of the program, it is not feasible for the program to put so much investment on sanitation. However, for the remaining life of the program, health facilitators need to add "sanitation" as one of their topics and discuss how water or vector borne diseases spread and the benefit of installing latrine.

The health education sessions are not contributing much to improve the knowledge and awareness of the community. Inadequate facilitation skills of the health facilitators and lack of BCC materials are the two main barriers to improving the effectiveness of the health education sessions. Unless the program addresses these two major issues, the awareness level of the community members will not reach to the expected level to translate the knowledge to practice.

B. IR 1.2: Improved individual and household level livelihood capacities

The strategy of the CANAL program under IR 1.2 is to provide food insecure households in program communes access to small loans so they can start small and micro enterprises to increase income and food security.

The CANAL program is producing outputs that are designed to have these effects and to ultimately reduce food insecurity.

¹³ As reported in the KPC survey.

6.1.2 Potential for Significant Impact of Micro-credit and IGAs

In the first year of implementation, the program has provided IGAs to 11 communities¹⁴ and 1476 members including 360 women are directly benefiting from the IGAs. The program supported to establish 5 grain-mills, 9 shops, two butcheries, one bakery, and two tie-dye centers. Although these activities are primarily identified to contribute to household income, some of these IGAs brought additional benefits to the community. For example before opening up the shop in Kow Malal Village in Foum-Gleita Commune under Gorgol, the community had to travel approximately 15 to 20 km to Foum-Gleita or M'Bout to buy daily necessities. Now people from adjacent communities come to this village to shop.

One-hundred and sixty-one individuals including 98 women received loans directly from the program through CECD-M. All of these loans are transformed into micro-enterprises ranging from shops in the village markets to trading small ruminants. These micro enterprises are also making good progress and have substantial impact on household livelihoods. The quality and quantity of diet has improved for many of the borrowing households. There are members who even build houses from the income that they have received from the micro-enterprises.

The vaccination parks and the services provided by the Auxiliary Veterinarians Assistants are having positive impacts in the community. Access to veterinary services has greatly been improved.

The IGAs and micro-finance activities are contributing to increases in income of the households that took out a loan, but the coverage is still quite low. It is too early to tell whether the program with its current capacity would be able to cover a greater number of households under micro-finance so that the program can make measurable impacts on the communities. Moreover, supervision from CECD-M is extremely minimal. Although the recovery rate is still high (95+ percent), it is too early to tell whether this rate will continue with the increase in coverage. One of the reasons behind the high recovery rate in micro-credit generally is its intensive supervision so that the chance of diverting the loan to consumption is fairly slim. This is not the case in CANAL. If the recovery rate starts to slip either because of business failure or used for consumption, the intended benefits of the activity might erode. Although CECD-M said that it would continue in Foum-Gleita in Gorgol and Khabou in Guidimakha even without the program support after the end of CANAL, the current capacity (both financial and human) of CECD-M does not indicate that this will happen.

The success of the IGAs will greatly depend on its management after the end of this program. Currently the management is weak and the program has yet to develop a strong financial management system for the IGA management committees. Without a strong management system the IGAs may become a source of conflict in the future and would be likely to fail.

It is too early to tell whether the Auxiliary Veterinary Assistants will continue to provide their services after the end of the program. Four important factors will affect the continuation of the services including (a) demand for the services (b) income from the services, (c) continuous updating of the knowledge, and (d) easy access to the veterinary medicine. Currently, there is a clear demand for the services of the para-vets and if their treatments continue to be effective, the demand will likely continue. The ability to provide effective treatment will depend on the regular update of knowledge and information and easy access to quality medicines. These are the areas in which CANAL can focus on making improvements. The program needs to develop

¹⁴ Seven in Assaba, two in Gorgol, one in Guidimakha, and one in Hodh-el-Gharby.

a system through which the para-vets can periodically receive refresher training to update their knowledge and the program also needs to establish a system to help them to access to quality medicines. Finally, the services provided by the para-vets need to be evaluated to determine the fee level based on the quality of services and opportunity costs and the CANAL program needs to help these para-vets to establish the fees.

At this stage, dry cheese production is a pilot activity, which needs more attention and further development. This is a recent initiative so it is too early for the MTR team to tell what will happen after the end of the program. Here we discuss some of the critical issues that may hinder sustainability if not addressed during the program life.

The program trained 25 women to produce dry cheese and provided some basic tools based on the premise that many households throw-out milk during the rainy season, as they do not know how to preserve them; and the children in these households do not have access to milk or dairy products in the dry season. The ability to produce dry cheese will help these households to produce cheese when the milk is in abundance and will make it available to the children in the dry season.

However, discussions with the small number of communities visited by the MTR team do not confirm this premise. Although, the women who received training acquired skills and produced dry cheese, the program did not provide the fermenting agent to the households that received training. Moreover, the households participating in this activity do not have a clear idea why they are producing cheese. Therefore, they do not know what to do with the cheese. It tastes good and the children do like it but they could not give it to the children, as they don't know whether this is allowed.

C. IR 1.3: Increased capacity of communities to mitigate food insecurity shocks

The strategy of the CANAL program under IR 1.3 is that food insecure households in program communes will be mobilized and the capacity of the communities as well as government will be strengthened through a systematic participatory process and establishing projects that are critical for the overall achievement of the food security goal. The community development projects that are supported by the program are expected to impact food security primarily related to availability and access to food.

6.1.3 Potential for Significant Impact of Community Development

Some of the infrastructure investments in CANAL have already had significant impact. These include construction of barrage and dikes, vegetable perimeters, animal vaccination parks and rehabilitation of water points.

Construction of the barrage in Bote and water harvesting dikes provided a new crop season to the households that have a piece of land in the catchment areas. Although there was an initial problem with the fencing in Bote, the government constructed a fence around the area to protect the cropland from large animals. It is expected that many more households will plant in the next year.

The main threat to the sustainability of this impact is whether the barrage and the dikes will be maintained. If the program together with the community develop a small management committee and charge user fees, it will help the community in regular maintenance. In case of major repair needs, the community would not have the capacity (technical as well as financial)

to repair the infrastructure. The program needs to negotiate with the Department of Rural Development to take the responsibility of the barrage in case of major maintenance is needed.

The vaccination parks are having significant impact because animals do not have to travel 20 to 30 kilometers for vaccinations. The vaccination rate as perceived by the community went up, therefore the mortality rate might also go down. However the program currently tracks none of this information. The communities might not be able to continue to yield the benefits of the vaccination park if it is not properly maintained. The program facilitated formation of a management committee but similar to all other committees formed by the program, this committee is also inactive. Although a fee of 5 Uguyia is charged for every animal using the park, the committee does not record how many animals are vaccinated. The cash is kept in hand. To ensure the parks are periodically maintained and continue after the life of the program, it will be important to develop and implement a maintenance plan and a system to track animal vaccinations and fee collection. Using bank services to hold park fees would reduce risk associated with keeping cash in hand. Finally, it may be necessary to review and reshuffle committee composition.

The vegetable perimeters that have access to irrigation are also having positive impact. Households that have land inside of the perimeter are producing vegetables. However access to quality seeds and technical support will be an issue after the project exit, and little has been done to address this issue.

The perimeters for the cereal crops are also having some impact as yield has increased. Some of the households who left the land fallow prior to perimeter development are now encouraged to cultivate.

Under food-for-work, the program has created 57,460 person days of employment to construct community development projects. 12,922 individuals participated in food-for-work activities and received food rations, which had an impact on food security at the time of project implementation.

6.2. Potential Impact at the Final Goal Level

The CANAL program was designed to strengthen the resilience of households to food security in targeted communes of Mauritania.

Mauritania is a large country with a low population density. Intervention zones are widely spread apart ranging from 200-600 kilometers from each other. The villages within the commune are also spread apart (some of them are 50 to 60 km apart). Poor infrastructure, absence of road network and inadequate human capital posed enormous challenges to program implementation.

The program was not designed to effectively address the issue of irrigation at a scale to address one of the major constraints to increase food production and productivity (food availability and access) in target communes, nor does it address the issue of sanitation and access to potable water at a scale to improve food utilization.

Before the CANAL program, Counterpart did not have a physical presence in Mauritania. It took almost 10 months to procure the Host Country Agreement from the Government hence staff hires were significantly delayed. Most of the key program staff were hired after 16 months of the official start date.

The program did not start implementing activities until March 2008. In August 2008, a military coup took control over the Government and CPI was asked not to work with the Government until a democratic Government is elected and take in charge of the country. The IR1.1 was designed to be implemented through partnering with the Government. The democratic Government took power on July 2009 and CPI resumed working with Government. As a result of these delays, some of the activities could not be implemented until recently.

Because of the delayed startup and political instability, the IR 1.1 did not start at full scale until mid-2009. Generally achieving long-term impact requires change in behavior or systems, but the activities implemented by CANAL program have not yet reached to a level to induce behavioral changes. Moreover some of the program activities have yet to be implemented in many villages and some activities did not reach to a scale to show both behavioral and systemic changes.

7. Key Lessons Learned

A number of key lessons emerged from the evaluation that are useful for modifying the current CANAL program strategies as well as for the design of new programs.

First, at the level of local participation, CANAL staff were not able to effectively facilitate a process in forming VDCs. Staff went to the villages and directed communities to identify VDC members without collectively establishing clear guidelines and expectations or facilitating the selection process. In part, this may be attributed to program delays and the desire to initiate activities in the field. The communities choose VDC members who in many cases are not able to take on the intended responsibilities of the VDCs. Influential households made their way to the committee and hold many key positions, In contrast, active individuals who do not have influence were often excluded in the selection process. This has been identified as one of the major constraints to making the VDCs functional. In many cases, the warehouse keeper, the

treasurer, TBAs, and RCs were selected because they are related to influential members of the community, while there are better qualified and more suitable individuals who were not selected because they do not have someone influential to nominate them.

It is very important to develop a common vision for the village development committees or similar institutions that are formed as part of a program such as CANAL. The CANAL program created the VDCs without having a clear vision for them. Consequently, there is no common understanding about the roles and responsibilities of VDCs across the regions. Staff are not sure about the long term plan for the VDCs, and do not have a clear idea of expectations from VDCs.

A second key lesson taken from the MTR relates to the role of Head Nurses in improving MCHN caretaker practices. The CANAL program strategy relies heavily on the Head Nurses to ensure the quality of growth monitoring sessions. The Head Nurses are too busy with their primary responsibilities and too thinly spread across the commune. The Head Nurses can only devote two to three days per month to monitor and provide technical support to the RCs for growth monitoring. During this period, there is no one in the commune to provide primary care services to the communities under the responsibility of the head nurse even in times of emergencies. The growth monitoring activity was designed as a nutritional surveillance tool to identify malnourished children, identify the causes of malnutrition, and work with the parents to address the root causes. The program also provides a nutritious food ration to recuperate and effectively combat malnutrition. As the program relies on the head nurses to ensure the quality of this intervention, there are widespread measurement errors and the head nurses are essentially collecting growth monitoring records from CHF's without checking the quality of the data. They do not have the time that is required to adequately provide assistance to the RCs to ensure the quality of growth monitoring and to make a significant impact. The data are not plotted onto the graph, and the RCs are not having any discussions with mothers to identify the causes of malnutrition. The mothers come to complete the routine to get the food ration. The Head Nurses do not have transport and depend on CPI to transport them to the program villages. With the current strategy, it is unlikely that the quality of growth monitoring will improve. Moreover, it is the time to ask the question: What is the purpose of involving head nurses in growth monitoring?

The effectiveness of the health education sessions depends on the facilitation skill of the health facilitator, quality of BCC materials, as well as the interest of the participants on the topic discussed. Most of the health education sessions are ineffective because the health facilitator uses a lecture format instead of a facilitative and interactive format, there are no BCC materials used in the sessions, and the topics are often pre-determined by the health worker. There are also examples in which the sessions are ineffective because of the facilitation skills of the health facilitator.

The process of identifying and selecting community development projects is not well facilitated by program staff. The involvement of CANAL program staff was minimal in the selection process. The staff depended on word of mouth and did not adequately check the feasibility and interest of the community in approving the projects. As a result there were many issues encountered by the program during implementation, which could have easily been avoided with careful planning and active engagement. In selecting the community development projects, the emphasis was heavy on the hardware side while the software did not receive adequate attention and as a result has hindered the overall effectiveness of the project.

CPI agreed to partner with ACORD without evaluating the organizational and technical capacity of the organization, as a result the problem started from the beginning of the implementation phase. The quality of work produced by ACORD was poor while ACORD was expecting to implement a larger part of the program and CPI wanted to address the quality issue before going for a renewed contract. This has created tension between the two organizations which has impact on program implementation. The lesson that CPI may want to take from this partnership is to evaluate the capacity (human, financial, and logistics) of the organization, the quality of work that it delivers, transparency of its management and financial systems before embarking on a partnership agreement. Otherwise the partnership may end up into an unexpected end or into a situation that is neither beneficial for the partners nor for the beneficiaries.

8. Recommendation for the Remaining Life of CANAL Program

This section provides recommendations for the remaining life of the CANAL Program. To assist the program in focusing on priority issues, the MTR team presents only the high priority recommendations, which should be undertaken to ensure that the CANAL program maximizes sustained impact.

Recommendation 1: Improve the quality and effectiveness of growth monitoring through re-organization of responsibilities, increased human resources and quality assurance strategies

As discussed in this report, the Head Nurses are spread too thinly and it is impossible for them to effectively monitor the quality of GMP sessions and make the intervention effective. Moreover without having access to transport, it is unlikely that the Head Nurses will continue to provide technical assistance to CHWs and CHF's after the end of CANAL program. Therefore, the MTR team recommends that the responsibility of monitoring the GMP sessions should be primarily assumed by the CANAL Health Animators. To effectively accomplish this task, the program needs to hire one additional health animator in each of the four regions and redistribute the sites.

The health animator needs to be physically present in the GMP sessions and coach the community health facilitators on how to correctly measure a child, how to record the data and plot the data on the growth chart, and how to facilitate a discussion with parents to investigate the root causes of malnutrition (e.g, what are the possible consequences if the child continues to remain malnourished, and what measures could be taken at home to address this issue). In addition, the animator also needs to assist the CHF's in facilitating a discussion around nutritious fruits and vegetables and help develop an action plan with the mother of the child to plant fruits and vegetable seedlings in places where it is feasible so that the household gains access to nutrient rich vegetables and fruits. In places where the irrigation facilities are inaccessible, at least moringa could be tried.

In the next six months, the health animator needs to be physically present for all of the GMP sessions and provide on-site coaching to the CHF's. The GMP sessions need to be planned accordingly so the health animator can be in all of the sessions. After six months, if the health animator finds that the CHF's can do the work correctly and the GMP session is working, then he or she can spend less time to monitor GMP.

The program should provide an intensive training on growth monitoring to all of the Health Animators. The training should include how to take measurements, how to plot the data on the growth chart, how to facilitate a discussion with the parents of the child, etc. This will enable the Health Animators to provide adequate support to the CHF's.

The growth charts need to be re-designed and re-printed with color-codes so that a person without literacy skills can easily understand her/ his child's nutritional status.

Recommendation 2: Improve the quality and effectiveness of Health Communication sessions through improved facilitation skills of the CHF's and adequate use of appropriate BCC materials.

The MTR team recommends re-organization of the health communication sessions to make it more interactive, participatory and facilitative. The CANAL health animator and community health facilitators' training in facilitation skills will likely be required so that both of them learn how to facilitate discussion instead of giving "lecturer". The CHF's should be given the same BCC materials (flip chart, story book, flash cards) that were used in their own training so they can easily use the materials in the communication sessions.

The topics of the discussion should be identified by the participants from a range of topics. The participants may be asked to identify what they want to learn in the next session so the facilitators make appropriate preparations. The sessions should be as action-oriented as possible. If there is a session on hand washing technique, for example, the CHF needs to physically demonstrate hand proper washing technique using soap and water and also ask a few participants to do the same.

The health communication session should include "nutrition education" in which the facilitator will discuss the nutrient contents of fruits and vegetables that are locally available or can be grown in the area. Together with the participants, the facilitator can develop a plan in the session to plant some nutrient-rich plants in the home-yard or vegetable patch. The CHF's can promote *moringa oleifera* plants, which is a great source of protein and vitamins and can be easily grown in the environment.

Similar to the GMP sessions, the health animator needs to observe the entire session at least for few months so that he can provide immediate feedback to the CHF's. Afterwards when the program is confident about the general quality of the sessions, more targeted support would be required to improve the skills of certain individuals who may take slightly longer time to improve their facilitation skills.

Recommendation 3: Increase the coverage of micro-finance through targeted small loans and re-adjustment of the loan period.

The current loan size in the CANAL program is too large for a micro-finance loan. The large loans are too risky for the first or second time borrowers. The MTR team recommends significantly reducing the size of individual loans and also reducing the loan term to one year. This will reduce the risk on the borrower, and also will reduce the risk to the fund. The loan size can be increased with time and with experience of the borrowers in loan management. There should be a limit to the loan size and the limit will vary with the length of successful loan management experience of the borrower. This will also allow the program to expand the coverage to a large number of households so that the scale of impact increases.

The program should develop targeting criteria to lend only to the food insecure households. The targeting criteria may include a number of indicators including food security status, ownership of consumption assets, number of income earners in the households, income sources, herd size for the pastoralist households, and area of productive land for the agriculture households.

One of the critical factors in the successful implementation of micro-finance is intensive supervision. Currently the supervision from CECD-M is extremely limited. Hopefully the CECD-M community workers' mobility will increase with the access to a motorbike. The Micro-Finance Animator also should supervise the borrowers. The area could be divided between CECD-M community worker and Micro-Finance Animator and at least the borrowers should be visited once a month by either of them to know what is happening in the project. The visit could be synchronized with repayment schedules so the borrower can save a trip to the commune center. During the visit, the community worker or Micro Finance Animator should meet with the community to discuss about the membership and facilitate the membership process for those who want to be a member.

The MTR team understands that CECD-M will be establishing offices in every operational area with a safety box. CPI and CECD-M need to set up a guideline about the management of the fund including guidelines on how much cash can be hand carried and how much could be kept in the safe box located in the commune based office.

Recommendation 4: Strengthen management committees of the Income Generating Activities by providing necessary skills, tools and resources.

The sustainability of the IGAs would largely depend on the community structures and process that the program would put in place during the LOA. The IGAs are currently managed by VDCs which are non functional in most cases.

Many of the VDCs do not have any member in the committee with literacy and numeracy skills. The program needs to take initiative to reshuffle the VDCs to ensure that each VDC has at least one member with literacy and numeracy skills. To equip the VDC committees to better manage the IGAs, the MTR team recommends strengthening these committees through training in enterprise management including simple accounting.

Currently the IGA projects have been setting aside one third of their income for maintenance. The program should take initiative to open a savings account with CECD-M or other accessible financial institution and deposit the fund into an interest bearing savings account which could be accessed at the time of maintenance.

The program staff should facilitate developing a management and maintenance plan with clear responsibilities so that everyone knows the maintenance schedule.

If the IGA is managed by cooperatives and the income goes to the cooperative, it is the responsibility of the program to ensure that the income gets to periodically distributed among the beneficiaries so that the beneficiary households get benefits from the IGAs during the LOA.

Recommendation 5: Develop a clear vision for the VDCs and provide targeted support to strengthen them.

It is recommended that the program organizes a workshop with all staff (including animators) to develop a vision for the VDCs and develops a scope of work for them including key capacities required. The workshop should discuss what the program expects from the VDCs during the life of the program and after the end of the program.

The second step of the process is to revisit all of the VDCs to evaluate them against the scope of work and key capacities. The VDC review process should be led by someone internal or external to the program with experience and skills in evaluating community organizations. The evaluation should produce a document that would identify strengths, weaknesses, and gaps for each of the VDCs with specific recommendations on strategies to strengthen them. If necessary the members in some VDCs need to be replaced by qualified people from the community.

Recommendation 6: *To maximize the benefits of community development projects within the LOA, speed up the implementation with enhanced management and targeting strategies. If a one year extension is approved, it is recommended to implement some of the interventions by 2011 and implement projects in all of the project villages by 2010.*

The program needs to speed up its implementation of community development projects or PACs. Otherwise, the community would not be able to harvest the benefits of the interventions within the LOA. If the program ends by September 2011, it is important to implement all of the community development interventions by 2010.

The flexibility in the project design is extremely important to achieve the desired outcome. The Community Action Plans were developed in 2009, while the projects are being implemented in 2009, 2010 and some in 2011. It is likely to experience changes in the context, the interest from the community and the need for the specific intervention. CPI should continue to jointly review the plan every year before implementation.

To manage the community development projects, the program asked communities to form a management committee for each project. In many cases a completely separate committee was formed without establishing any functional links to the VDC committee. This has created confusion and frustration among the VDCs. It is recommended that the program reviews each of the committees and develops mechanisms to strengthen them. Wherever possible, the committees should be linked to the VDCs and in all future projects, the management and maintenance role could be given to the VDCs instead of creating a new structure.

Currently the program does not monitor the outcome level changes resulting from the projects. Therefore the program does not know whether the project is contributing to achieving outcome or effect level changes and likely to influence the overall impact. The M&E system needs to track the outcome level indicator so that the program can make informed decisions in adjusting its strategy to maximize the benefits.

The program staff should work with the community to develop a fee schedule for the community development projects so that revenue could be generated and set aside for maintenance. A bank account should be opened either with CECD-M or other legitimate institutions to save the revenue.

Similar to the IGAs, the program staff should facilitate developing a management and maintenance plan for the community development projects with clear roles and responsibilities. If the project is too big (i.e. the Bote barrage), it may require additional support for major repair

work. The program should negotiate with the Government departments (i.e. Department of Rural Development and Environment) to sign a contract so that it can extend its technical and material support for major maintenance work while the community takes responsibility of minor repair works using the user fees.

The program needs to develop a targeting strategy to ensure that the benefits of the program reach food insecure households. Some community development projects benefit the entire community (i.e. Vaccination Park) so targeting criteria is not appropriate for these projects while other projects benefit a segment of the community. It is the responsibility of the program to ensure that the majority of the beneficiaries of the projects come from food insecure households.

Recommendation 7: Continue to develop appropriate outcome indicators and efficient information gathering tools to obtain information about the quality of activities. This will enable the program to identify activities that are effective, activities that need to be modified, or activities that need to be suspended.

In all BCC activities, the effectiveness of the transfer of information should be determined through FGD, feedback sessions, and short surveys. The target group needs to be disaggregated to determine if the message is appropriate for some groups but not others (socio-economic criteria, access to services, etc.).

The M&E Unit also needs to track the quality of following services:

- quality of services provided by the TBAs, CHWs, Head Nurses, CHFs and AVAs
- quality of health communication sessions
- community based IMCU services
- clinic based IMCI services

It is critical that the quarterly meetings should continue to review the format of meetings to discuss more about quality of work and not only quantity.

Recommendation 8: Improve the quality of partnership with CECD-M and ACORD and develop a mechanism to ensure the quality of activities.

The CANAL program needs to develop performance measuring criteria for all of the activities done by the partners and use these criteria to evaluate the activities before disbursing the next tranche of funds. Currently the quality varies significantly and some of the interventions implemented by ACORD are unacceptably poor in quality. The performance measurement criteria can be jointly developed through a consultative process with the partners.

The program should start a quarterly meeting with all partners to review progress and challenges. During the quarterly meeting with staff, the CANAL program can devote half a day for partner consultation in which each partner is invited to present current progress and share issues. It will allow the CANAL senior staff as well as partners to exchange ideas and concerns (if any). This will also help to address the issues quickly so that they can be addressed before they escalate. This also has the potential to improve relationships among partners.

In deciding activities for the partners, it is important that the program reviews the proven experience, strengths and weaknesses of the partner organization to ensure the partner \ has the capacity to deliver the specified outputs.

Recommendation 9: *The MTR team recommends the following adjustments to the IPTT. In addition, considering the baseline study results, the MTR recommends comparing the end line results with control areas instead of making pre/ post comparisons.*

Since the baseline results are not valid, the MTR team recommends the final quantitative evaluation results to be compared with control areas. Based on the secondary data, the final evaluation should identify communes with similar nutritional and food security status and consider them as control areas.

Some of the indicators in the IPTT need to be revised based on field-level and operational realities and the targets need to be adjusted. The baseline values that were provided in the IPTT based on the baseline survey should be disregarded. Based on the experience in other countries and the operational challenges, the MTR recommends adjusting the goal-level target to one and one half percent annual reduction of stunting and underweight. The program should also revise the targets for behavior change indicators based on the KPC survey results.

The two impact indicators under IR 1.3 (*% of communities having received funding for 2 or more community defined projects that reduce food insecurity, and % of communities soliciting and receiving support from government and/or donors*) do not capture the outcome level changes that may happen as a result of the program interventions. The first indicator is an output-level indicator. The community development interventions implemented by the program will either contribute to increases in household agricultural production, reduce animal mortality rate, or increases in household income. The two indicators reported under IR 1.2 *# of months of adequate food provisioning and household dietary score* will also measure the outcome level changes that may result from the interventions under IR 1.3. The MTR team recommends using these two indicators instead of the existing two indicators presented in IR 1.3. In addition the MTR recommends tracking animal mortality rate to capture the impact of vaccination parks and AVAs.

The MTR team does not see additional value of having *ratio of additional funds raised to small grants leveraged* an indicator in the IPTT. There is no intervention in the current program that may result to this change.

The issues letter (May 12, 2008) recommended a number of additional indicators to include in the IPTT. The program did include all of the food security indicators and revised its IPTT. However, the program does not have any intervention that can result in changes in any of the indicators listed below. Hence, the MTR recommends not to include them in the IPTT.

- % of program beneficiaries (farmers) adopting the minimum number of agricultural technologies.
- # Communities that have disaster early warning systems in place.
- # Communities that have improved physical infrastructure to mitigate the impact of shocks.
- # Communities that have safety nets to address the needs of their most vulnerable members.

Considering the program interventions, the MTR recommends adding the following two indicators to measure the outcome level changes for IR 1.1:

- % of children who had diarrhea in previous 14 days
- % of children who had diarrhea in the previous 14 days received ORS.
- Average number of sick days in the last 30 days for children under five.

9. Concluding Remarks

Counterpart International has worked very hard implementing the CANAL Program to get it where it is today, despite difficult operating circumstances, rapidly changing context, and difficult logistical challenges. The program was delayed by a significant period, a factor which was beyond the control of CPI. Overall, the program has demonstrated significant short term impact. However, much of the impact that has been achieved is at risk of not being sustained after the program ends, unless the program has an opportunity to plan and implement through one additional year. In this next period, which begins now with planning and software implementation, the CANAL program must make a considerable effort to use the additional time effectively, adding software to complement hardware, addressing problem areas such as the VDC and GMP, and implementing more development oriented approaches that cultivate self-resilience.