Mitigating Food Security Shock in Eastern Chad Phase II

Final Evaluation Report

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Acronyms used

BREC	Building Resilience in Eastern Chad
CCT	Coupons Contre Travail
CECI	Communauté d'Epargne et de Crédit Interne
CRS	Catholic Relief Services
FFP	Food for Peace
HH	Household Head
IDP	Internally Displaced Person
MFSS	Mitigating Food Security Shock
M&E	Monitoring and Evaluation
NGO	Non-Governmental Organisation
ONDR	Office National de Développement Rural
SECADEV	Secours Catholique et Développement
SILC	Savings and Internal Lending Communities
UNHCR	United Nations High Commission for Refugees
USAID	United States Agency for International Development
VFW	Vouchers for Work
WFP	World Food Programme

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Executive summary

Following the severe drought of 2011, the USAID Food for Peace project *Mitigating Food Security Shock in Eastern Chad* (MFSS), implemented by CRS and SECADEV between March and November 2012, provided unconditional food vouchers to over 10,000 food insecure households in the departments of Dar Tama in Wadi Fira Region and Assoungha in Ouaddai Region. This provided emergency assistance at a time of severe hardship that helped ensure food security and protected household seed stocks and other assets.

To build on the success of this first phase and to take advantage of unspent project resources, CRS proposed and USAID approved a six-month no-cost extension from December 2012 to May 2013 with the aim of helping the most vulnerable beneficiary households to transition from emergency assistance to early recovery. At the same time, CRS also sought and obtained funding from a private donor for complementary activities for the same beneficiaries in a project entitled *Building Resiliency in Eastern Chad* (BREC). The activities of the two projects aimed to build household assets and provide other means to build resilience to possible future shocks.

The target communities for both projects were identified in discussion with local authorities and partner staff to represent the most disadvantaged villages in the areas. A total of 57 villages were identified – 30 in Assoungha and 27 in Dar Tama – to participate. All the beneficiary households in these villages in first phase of the project were included in the second phase, a total of 4134 households. The vulnerability criteria used in 2012 to identify beneficiaries included widows with children, divorcees, child mothers, woman headed households, child headed households, the elderly and physically handicapped and included a preponderance of women. The beneficiaries in Phase II included 2685 women and 1449 men.

The combined projects undertook five main activities:

- Vouchers for Work (VFW) for construction or rehabilitation of a community asset
- Agricultural training
- Kitchen gardening through the “key-hole garden” approach
- Goat fairs
- Savings and Internal Lending Communities (SILC).

The first three activities above were funded through Phase II if the MFSS project and the final two through the BREC project.

Vouchers for Work

Each beneficiary household nominated a person to work on community projects for 6 days per month during February, March and April 2013 in return for vouchers that could be redeemed for food items in special market organized for the purpose. Projects to work on were chosen by the communities themselves and mainly included rehabilitation of rural roads and construction of “cordons pierreux” to decrease erosion and increase water infiltration on community land. Seven groups of adjacent villages worked together on VFW projects in Dar Tama and seven in Assoungha. Two markets were organized for each group to exchange their vouchers for food, making a total of 14 markets in each of Dar Tama and Assoungha.

Payment was at the rate of CFA 2,000 per day and total payment to each household was thus CFA 36,000. The main foods bought in markets were millet and sugar. Lesser quantities of other foodstuffs—such as flour, rice, groundnut oil, salt and macaroni—were also purchased. The relatively high amount of sugar bought compared to millet suggested that food security was better than in 2012 when beneficiaries bought predominantly millet, the staple cereal in the area.

The VFW programme was well appreciated by beneficiaries, who recognized their contribution to improved infrastructure of land management as well as the benefit from additional food available through exchange of the vouchers earned during the programme during the associated food markets. This activity will contribute to improving the lives of the population of the target communities beyond the lifetime of the project.

Agricultural training

CRS and SECADEV in collaboration with the Office National de Développement Rural and local veterinary authorities carried out training courses on:

- Bio-insecticides;
- Composting;
- Marketing;
- Post-harvest handling; and
- Animal health.

The training courses targeted 25% of project beneficiaries, identified by their communities as expert farmers. The trained persons were expected to train other beneficiaries in a cascade system to reach as many people as possible. The training courses were delivered through the same groupings of villages as were used for the VFW programme. Thus a total of 70 courses were conducted, 35 in Dar Tama and 35 in Assoungha.

Training was well received by project beneficiaries, who were able to describe and repeat their learning during focus group discussions. The cascade model of training also appears to have worked well although not all beneficiaries were reached with information from the training courses. More beneficiaries reported using improved agricultural practices in the final evaluation survey at the end of the project than had reported in the baseline survey. For animal health training it was possible to confirm this in relation to management of the animals received during goat fairs. For the other training, confirmation has not yet been possible as there is little agricultural activity during the dry season. We suggest that follow-up training of other beneficiaries would be a worthwhile investment likely to lead to long-term changes in behaviour and farming practices. Follow-up to confirm the uptake of messages from the first round of training would also be desirable to quantify its impact.

Key-hole gardens

The name key-hole garden derives from the appearance of the gardens when viewed from above – resembling a keyhole. The approach was developed to establish school gardens but has been widely adopted in other contexts where good soil and water are limited. CRS and SECADEV conducted a training-of-trainers course and established demonstration gardens to illustrate the approach.

Uptake of the key-hole garden methodology by beneficiaries has been enthusiastic with almost 1200 such gardens established, not only by project beneficiaries but also by other members of the

communities who have seen the demonstrations. Clearly, this methodology, which recycles household kitchen waste and grey water, has caught the attention of project beneficiaries and others and appears to respond to a generally felt need. The wide adoption of key-hole gardens illustrates the willingness to accept new ideas and try new approaches on the part of the local population. It also endorses the value of training, particularly when accompanied by physical demonstration and hands-on participation, in introducing new ideas and methods. However, the true test of the key-hole approach will be in the extent to which it is maintained beyond the end of the current project. Follow-up during the coming months should be continued to monitor the extent to which adoption is sustained and spreads.

Goat fairs

A total of 14 goat fairs, 7 in Dar Tama and 7 in Assoungha, were organised in January and February 2013 and over 5,400 goats were made available to beneficiaries. The 30% of households with no goats were provided with vouchers to the value of CFA 72,000 (approximately $144) to enable them to purchase two goats, while those with one goat were given vouchers worth CFA 36,000 ($72) to purchase a further goat. About 90% of the goats were pregnant females that have subsequently given birth and so the goat population in the 57 project communities has been increased by something close to 9,000 animals. The vast majority of beneficiaries (86%) retained their goats and were still in possession of them at the time of the final evaluation in May 2013. Average goat numbers per household increased from less than one in the baseline survey in January to about three in May.

The goat numbers in the target communities were dramatically increased by this exercise. The assets of the most vulnerable households in the most vulnerable communities were increased and their ability to face possible future shocks improved accordingly. The evolution of goat numbers among project beneficiaries and their contribution to household economies should be monitored in the coming months to quantify the benefits of the goat fairs to both individuals and communities.

Savings and Internal Lending Communities (SILC)

The project introduced SILC, where groups are formed to come together for collective saving and to facilitate small loans to group members for income-generating activities at reasonable interest rates. Beneficiaries in target villages were sensitised to the SILC methodology by a private service provider from the area then invited to form groups. This sensitisation only occurred towards the end of the six-month project cycle but already the target of 40 groups formed has been exceed by close to 100% and group formation still continues. The first groups have already begun to make regular contributions and have accumulated working capital but have not yet begun to issue loans to members. The private service provider has also trained others to provide support and guidance to SILC groups against payment of a small fee with the aim of creating a network of service providers to help make SILC groups self-sustaining.

The SILC methodology has stimulated a great deal of interest among project beneficiaries. There is a history of similar savings groups in the area that have been successful and sustainable and there is every likelihood of the SILC approach being equally so. It is early days, however, to judge on the success of the new groups and follow-up will be required to establish this and their long-term sustainability.

Final evaluation

This final evaluation of the combined projects was carried out in May 2013. It interviewed 415 randomly selected project beneficiaries (281 women and 134 men) from 30 villages using a questionnaire designed for the purpose to determine food security status, views on the project activities and as a means to inform future interventions with similar activities. In addition, focus group discussions were held with other beneficiaries and vendors who had participated in goat fairs and food markets associated with VFW activities.

The final evaluation survey suggested that there was on-going food insecurity among the most vulnerable sections of the communities in Dar Tama and Assoungha. The level of insecurity was less than observed in the baseline survey in January 2013 and comparable to the level observed at the end of Phase I of MFSS in October 2012. The project activities, notably the VFW programme, contributed to reducing food insecurity and decreasing the percentages of both children and adults eating only one meal per day from 40% and 65% in January 2013 to 3% and 17% respectively in May 2013.

The numbers of livestock recorded in the final evaluation were slightly higher than recorded in the baseline survey but lower than the numbers that households reported having before the years of insecurity. Goat numbers per household increased from less than one to three, showing that goat fairs had contributed to increasing household assets and rebuilding livestock numbers. Fourteen percent of households reported having no goats in May 2013 in spite of having been given at least one goat in February. The fate of these goats is at present unknown.

The most commonly reported improved agronomic practice was application of organic manures, including animal manure and compost, which was quoted by almost three-quarters of beneficiaries interviewed. Almost 50% reported cultivating kitchen gardens in the final evaluation compared with 25% in the baseline survey. Most of this difference can probably be attributed to adoption of key-hole gardens. Improved post-harvest practices and mulching were reportedly used by over one third of respondents. Other improved practices were reported by a less than one quarter of respondents and there is clearly scope to enhance farming methods used in the area through further training. We suggest that the trainings that have already been provided are reinforced by repeating them with different farmers and opportunities are sought to provide training in additional areas.

Project activities were in general highly appreciated by beneficiaries. In particular, the food markets associated with the VFW programmes and goat fairs were valued by more than two-thirds of respondents. The key-hole garden methodology was appreciated by more than half, and particularly appreciated in Dar Tama. Rehabilitation of roads was particularly popular with beneficiaries in Assoungha.

Achievements of the projects against indicators

In general, the project exceeded its targets. Communities and individuals were provided with assets to help increase their resiliency in face of possible future shocks. Approximately 50% of farmers reported using three or more improved agronomic practices against a target of 20%. The number of households with keyhole gardens was almost 1200, far exceeding the target of 150. More goats than the target of 5375 (the goat equivalent of the CFA 193,500,000 distributed in vouchers) changed hands in goat fairs due to beneficiaries ability to bargain and get three goats for the price of two.

Precise figures were not available but it was estimated that at least 109 additional goats were purchased. The target for numbers of SILC groups was 40 and in practice 77 had been identified at the time of the evaluation and the process of group formation was on-going and likely to rise.

Three indicators were not fully met. The project fell short of having all 4134 beneficiaries in possession of at least one goat. In the final evaluation, 86% of respondents reported owning goats although all had received at least one. We do not know what happened in the cases of the 14% who reported owning no goats but this is something worthy of future investigation if the opportunity arises. We conclude however that it was unrealistic to expect all beneficiaries to be able to retain their goats and that this indicator was unachievable.

A further indicator aimed to have 80% of beneficiaries satisfied with goat distribution through goat fairs. In practice, 66% reported satisfaction in the final evaluation survey. The reasons for lack of satisfaction were not explored in individual interviews but in focus group discussions the prices charged for goats were repeatedly criticised as being too high. It seems likely that this issue of pricing was responsible for lower than expected levels of satisfaction.

The final indicator that was not achieved was that of 80% of SILC members taking a loan. The clear reason for this was the late start made to the SILC programme and the fact that groups had only recently been formed and had not yet had sufficient time to build up the working capital to enable them to make loans. It is fully anticipated that this indicator will be met in the fullness of time and it is suggested that efforts are made to monitor the future development of the SILC groups formed.

Prices in food markets and goat fairs

Frequent complaints from beneficiaries that prices were high and the observation that millet prices were substantially higher in project-organised food markets than in regular weekly markets led to suspicion the vendors were profiteering at the expense of the project and the beneficiaries, particularly in Dar Tama. However, most of the millet sold in the markets is brought in from outside the departments and this clearly involves additional expense and implies higher prices. CRS and SECADEV calculated that the additional costs involved in bringing millet to project markets would add approximately CFA 100 to the price of each coro but the price differentials observed were much higher than this.

It seems likely however that much of the millet sold in project food markets actually originates locally. This implies that the grain moves out of the area and then moves back in again when demand is sufficient. This would also imply that similar costs – namely CFA 100 per coro – would be added to the price on the way out of the area. In addition, each time that millet changed hands there would be addition of a profit margin by the dealers involved. Such changes of hands would happen at least three times along the chain from farmers to dealers to wholesalers to vendors and back to project beneficiaries. Taking all this into account, we now believe the prices of millet being charged in project food markets are not unreasonable and that the suspicions of profiteering on the part of the vendors are unjustified. However, this conclusion is based on an incomplete understanding of the trade in millet and further analysis and study is required to confirm it or otherwise.

No attempt was made to explore the price differentials for other commodities on the food markets or for goats in the goat fairs. It is suggested that CRS and SECADEV should investigate this issue further before embarking on similar food markets or fairs in future in order to clarify it fully.

Effectiveness and sustainability of project activities

The project involved a heavy load of activities to be undertaken in a short period of time in isolated locations where logistics and communications are difficult. Over 5000 goats were mobilized to 14 different locations in goat fairs. Over 4000 representatives of beneficiary households were mobilized for VFW projects in 14 locations over 3 periods each of 6 days. Twenty eight food markets were organized in 14 locations. Five training courses were organised in 14 locations, some of them for more than one day. Demonstrations of key-hole gardens were organized in the same 14 locations. SILC sensitisation was undertaken on a pilot basis to test reactions to the approach. All these activities involved initial discussions with beneficiaries and local authorities, and intensive backup support; e.g. preparation and distribution of vouchers for goat fairs and VFW, checking of voucher returns from vendors, payments to vendors, and so on. CRS and SECADEV deserve congratulation for successfully delivering all these activities with minimal problems along the way.

Several of the activities undertaken have delivered immediate impacts and will clearly have lasting effects beyond the project lifetime. Goat fairs have contributed to building household assets and rebuilding animal numbers towards levels seen in the past. The VFW programme delivered tangible improvements in local infrastructure, provided local employment opportunities, contributed to household food security and protected seed stocks.

Other activities, because of the very short duration of the project, have not had enough time to fully show their impacts or to evaluate their potential long-term impacts. The key-hole garden approach has been enthusiastically adopted by a large number of beneficiaries and is contributing green vegetables to household diets at a time when they are in short supply. But it remains unclear if these gardens will be maintained. Similarly, SILC has been readily picked up by beneficiaries and shows great potential for future impacts on credit availability to members but it is too early to fully understand the scale and scope of its impacts. Training has been welcomed by farmers and the cascade model has been shown to be effective. Beneficiaries have also shown their willingness – particularly through their adoption of key-hole gardens – to take on board new ideas and methods. So the scope for changes in agricultural practices and improved methods appears to be great. Once again, however, more time will be required to see changes work through the agricultural systems and their impacts become clear.

What we can say is that the project has already made impacts and brought about improvements in the lives of its target population and that there seems strong potential to add to this through the activities that have still to come to fruition. Continued monitoring will be requires to fully evaluate the impacts of all the project activities.

Lessons learned

1. Support of local authorities and their explicit involvement in choice of activities and targeting vulnerable communities and households is highly beneficial in achieving buy-in.
2. Chronic food insecurity appears to be endemic in eastern Chad for a section of the community in spite of improved harvest in 2012.

3. Recovery of animal numbers and building of other assets that enhance the resilience of communities and individual households to withstand shock has begun but needs further support.
4. Voucher for work programmes represent an effective mechanism to harness community action to improve infrastructure and build community cohesion.

Impacts of the project

1. The level of food insecurity experienced by project beneficiaries was reduced. In particular, the number of meals enjoyed per day by both children and adults increased. The percentage of children eating only one meal per day reduced from 40 to 3 percent during the lifetime of the project and adults from 65 to 17 percent.
2. Community assets were improved with likely beneficial effects on the abilities of both communities and individuals to resist potential future shocks. Significant improvements were made to local roads through the programme of vouchers for work, improving access to villages and markets. Erosion control on community land was improved with likely beneficial effects on crop yields.
3. Rebuilding of numbers of livestock in the target communities was initiated. Over 5400 goats, the majority of them pregnant females were distributed to 4134 households through goat fairs. Average household holdings of goats increased from less than 1 to almost 3. Increased numbers of animals provide a buffer to enable households better withstand potential future shocks.
4. Over 1,000 project beneficiaries were trained in improved agricultural practices. These beneficiaries in turn passed on their knowledge to other beneficiaries and other members of their communities. The long-term benefits of this training are difficult to evaluate, but any investment in making more information available to women farmers is likely to have direct impact on the food security and nutritional well-being of their families.
5. Almost 1200 key-hole gardens were established in the project communities by the end of May 2013 and were contributing green vegetables to household meals. The methodology has caught the imagination of project beneficiaries and its widespread adoption appears to suggest that it meets a real need. The reasons for this are not entirely clear. Follow-up of the use of key-hole gardens among adopters is strongly recommended.
6. Local markets have been strengthened. All the vendors who participated in goat fairs and food markets are now fully registered as traders with local authorities and are using bank accounts to support their businesses. The 12 vendors who sold goats in the goat fairs shared business to the value of CFA 193,500,000 (approximately US$ 387,000) and added substantially to their incomes. The 46 vendors who participated in VFW food markets shared proceeds of CFA 148,824,000 (approximately US$ 297,650) and also increased their incomes.
7. CRS Chad and SECADEV gained valuable experience in implementing activities that were new to both organizations. In particular, their experience of vouchers for work, goat fairs and key-hole gardens are likely to prove beneficial to future interventions. Both CRS Chad and SECADEV should feel proud of their achievements and move forward with increased confidence to undertake challenging new activities.
8. The profiles of USAID, CRS and SECADEV have been enhanced in eastern Chad.

Background

Eastern Chad has undergone a series of a series of shocks in the past decade. Security was severely disrupted in the wake of the Darfur crisis in neighbouring Sudan. From early 2004, fighting in Darfur intensified and large numbers of refugees crossed into Chad to escape the conflict, often pursued by Janjaweed militia. As of September 2012, UNHCR reported that there were 288,700 Sudanese refugees in Chad (UNHCR, 2013), the majority housed in refugee camps in the east of the country. Although the security situation in Sudan has improved, there are still sporadic outbreaks of violence. As recently as March 2013 inter-ethnic fighting over control of gold mines in Western Sudan led to the influx of an additional 23,000 refugees into Chad. At the same time, almost the same number of Chadians who had been living in Sudan also returned to Chad. As a result of the on-going instability, the majority of the refugees are reluctant to return home to Sudan.

In addition to the large numbers of refugees, incursions by Sudanese groups to rustle cattle and steal food, conflict between Chadian government troops and armed rebel groups, inter-ethnic violence over control of natural resources and criminal activity caused severe disruptions of security in Chad's eastern border districts, particularly around Adré in Assoungha department of Ouaddai and further south in Goz Beida and between 2005 and 2009. A total of about 180,000 Chadians were displaced into IDP camps because of the poor security. Since the security situation in eastern Chad began to improve from 2009 onwards, about 91,000 of these IDPs had returned to their homes by September 2012 but about 90,000 remained in camps (UNHCR, 2013). It is anticipated that the majority of these IDPs will have returned to their homes by the end of 2013, but they will continue to require support to make the transition and to re-establish their lives.

Against this background, a severe drought in 2011 added to the problems in eastern Chad. By the end of that year, it had become clear that food security in the sahelian zone of Chad had been adversely affected. A survey by WFP (WFP, 2012) carried out in November and December of 2011 reported reductions in areas sown due to late arrival of rains of 27.3% in Wadi Fira and 18.3% in Ouaddai. Household stocks were estimated to be sufficient to last three months – until the end of February 2012 – in both areas. The same survey reported that over 60% of the population of Ouaddai was in moderate or severe food insecurity and about 45% of the population of Wadi Fira was similarly affected. A study by Government of Chad (Gouvernement de Tchad, 2011) undertaken around the same time, suggested that food stocks would be exhausted by the end of March 2013, and that 2011 harvests had been reduced by 55% in Wadi Fira and 47% in Ouaddai. Later estimates from WFP surveys in June 2012 indicated that 50% of the population of Wadi Fira were in moderate food insecurity and 33% of the population of Ouaddai were in each of moderate and severe food insecurity.

With this background, the Gouvernment of Chad issued a call for humanitarian support to food crisis (Gouvernement du Tchad, 2011). In response, CRS and SECADEV developed a joint concept note that was submitted to USAID early in 2012. Based on the concept note, a full proposal was requested by USAID's Food for Peace Program for a project, Mitigating Food Security Shock in Eastern Chad (MFSS). The resulting project proposal was funded for a nine-month period to run from March 2012 through November 2012.

The CRS/SECADEV Food for Peace Project provided unconditional food vouchers – unconditional in the sense that nothing was asked of recipients in return – to more than 10,000 food insecure households in two departments of eastern Chad, Dar Tama department of Wadi Fira Region and Assoungha department of Ouaddai Region (Figure 1). Vouchers to the value of 12,000 FCFA (approximately US$24), calculate to permit purchase of approximately half of the food needs of the average household – were issued to beneficiaries at fortnightly intervals between June and October 2012 (with minor deviations from the schedule in response to implementation difficulties). This period was chosen to cover the lean period between crop establishment and crop maturity. The project provided essential assistance at a time of severe hardship that not only helped ensure food security but also protected household seed stocks and assets.

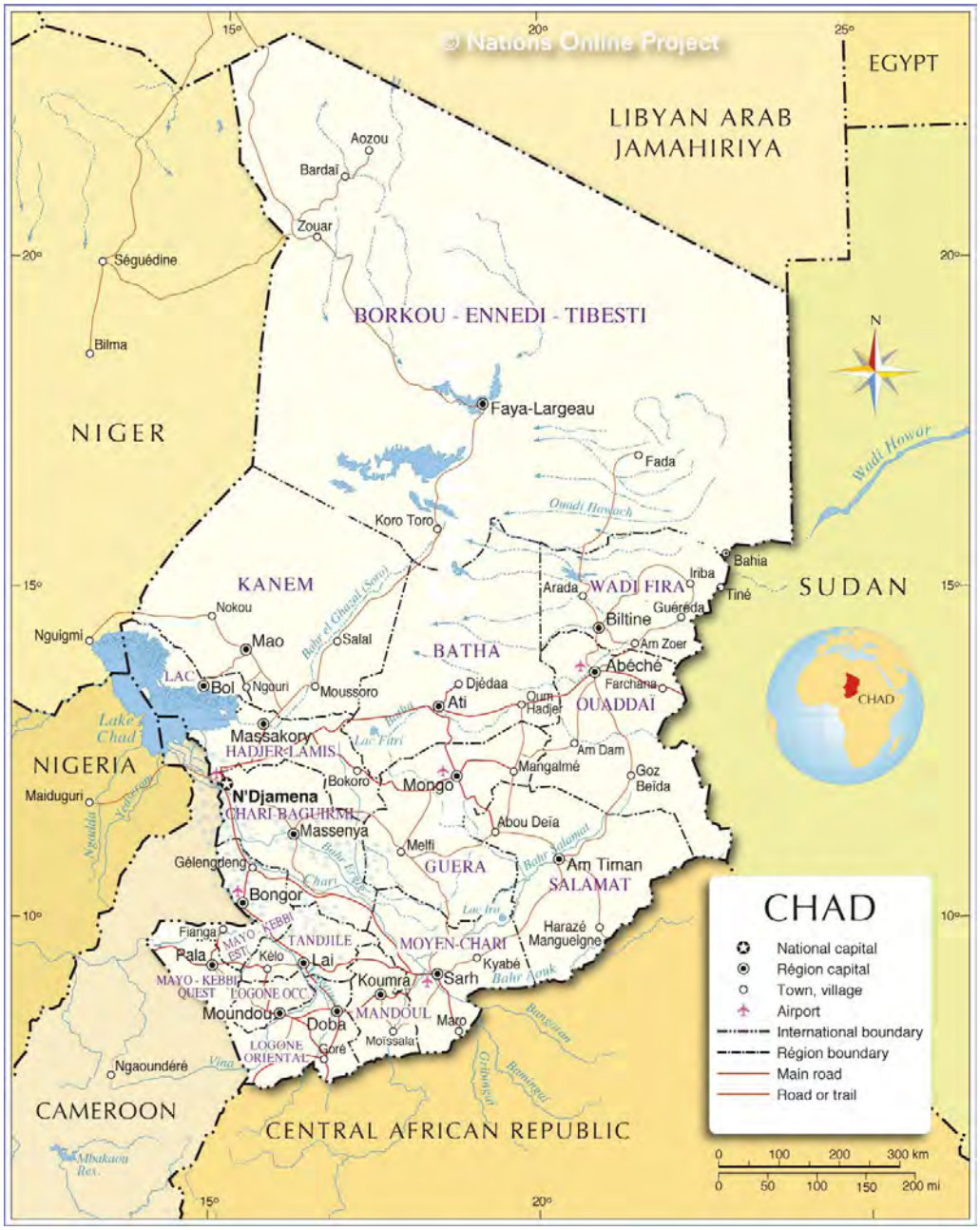

Figure 1: Administrative regions of Chad

To build on the success of the MFFS project and to take advantage of project resources that had not been fully spent, CRS proposed a six-month no-cost extension from December 2012 to May 2013, which focussed on easing the transition from emergency assistance to early recovery for the most vulnerable communities in the project areas. In particular, the project aimed to help to strengthen the resilience of the beneficiary households to possible future shocks. The activities undertaken in this second phase of the project were quite different from those in the initial phase reflecting the beneficiaries' changed needs after good rains and harvests in 2012 reduced the need for immediate food assistance. The Phase II activities included a programme of Vouchers for Work (VFW), agricultural training and establishment of household gardens using the key-hole approach.

In parallel, CRS also sought and obtained funding from a private donor for complementary activities in the same areas. This project, Building Resiliency in Eastern Chad (BREC), covered the same period from December 2012 to May 2013 and supported livestock repopulation through goat fairs and micro-finance activities for the same target communities.

Phase II target communities and beneficiaries

The target communities for Phase II of the MFSS project were selected through discussions with local authorities and leaders and partner staff to represent the most disadvantaged villages in the areas. Geographic and logistical considerations were also taken into account in the selection, to facilitate grouping of villages for training activities and markets which served several communities at the same time. All the beneficiaries from Phase I of the MFSS project were included in Phase II and the BREC project. A total of 57 villages from among the 150+ villages included in Phase I were chosen to participate in Phase II, 30 in Assoungha and 27 in Dar Tama. A total of 4134 households were identified to b benefit from the activities of Phase II, 2066 in Assoungha and 2068 in Dar Tama. Because of the particular vulnerability criteria used to identify beneficiaries in Phase I (widows with children in charge, divorcees, child mothers, girl or woman headed households, the elderly, and physically handicapped), the beneficiaries were predominantly women (Table 1).

Table 1: Breakdown of numbers of beneficiaries by department and gender

	Numbers of beneficiaries		
Department	**Men**	**Women**	**Total**
Assoungha	782	1284	2066
Dar Tama	667	1401	2068
Totals	**1449**	**2685**	**4134**

Project activities

A series of activities was identified through discussions between CRS, SECADEV and local authorities and community leaders. Initial discussions with beneficiaries started during the late stages of Phase I of the MFSS project to determine the sorts of interventions that would be of interest in the project areas. These ideas were refined in discussions between CRS and SECADEV. As many of the proposed activities were new to both CRS and SECADEV teams, there was initial scepticism on the part of staff of both partners that they would be feasible. However, evidence that similar activities had been successfully implemented by CRS in Sudan helped to crystallise ideas and reach a decision to proceed in spite of doubts.

The suite of activities that was chosen for the two projects is shown below in Table 2 and discussed briefly in the following paragraphs.

Table 2: Early recovery activity of complementary Eastern Chad projects

Building Resiliency in Eastern Chad (BREC) activities	Mitigating Food Security Shock (MFSS) Phase II activities
Goat fairs	Food Vouchers for Work (VFW) for construction or rehabilitation of a community asset
Savings and Internal Lending Communities (SILC)	Agricultural training
	Horticultural kitchen gardening through the "keyhole garden" approach

Adapted from: CRS, 2013.

Baseline survey

A baseline survey was conducted in January 2013 to establish levels of food insecurity, coping mechanisms in face of food insecurity, holdings of assets, numbers of livestock and poultry, use of improved agricultural techniques and involvement in micro-credit schemes. The results of the survey are reported in full elsewhere and in summary form in CRS (2103). Specific results of the baseline survey are quoted later in this report for purposes of comparison.

Sensitisation

CRS and SECADEV staff held initial meetings with government officials (prefect, sub-prefect and village leaders) to explain the project activities and goals and obtain their endorsement of the project activities, something essential to ensure their involvement and to ensure their support in obtaining community acceptance, in January 2013. District officials then called for public meetings in each of the target villages where the project activities and the criteria for targeting specific beneficiaries were explained to the assembled community. This approach was used to ensure full transparency and gain community endorsement of both activities and selection criteria.

Identification of vendors

Similar sensitisation meetings were called with vendors, once again with the involvement of local authorities. All prospective vendors were required to be in possession of national identity cards, to have registered their businesses and to have a bank account. They were also required to be willing to participate in all the relevant markets and fairs. A total of 76 applications to act as vendors were received. From these, 58 applications were accepted (52 men and 6 women). The repartition between Assoungha and Dar Tama and between food markets and goat fairs are shown in Table 3 below.

Table 3: Numbers of vendors active in VFW food markets and goat fairs in Assoungha and Dar Tama

Department	VFW food markets		Goat fairs		Total
	Men	Women	Men	Women	
Assoungha	28	4	5	0	37
Dar Tama	12	2	7	0	21
Total	40	6	12	0	58

Goat fairs

Goat fairs were conducted between 29 January and 21 February in both Dar Tama and Assoungha. Seven fairs were organised in each area, each fair serving several villages. The primary aim of the goat fairs was to contribute to rebuilding animal numbers, which had been drastically reduced in the wake of the armed conflicts in Darfur that spilled over and affected eastern Chad. Many animals were stolen in the period of insecurity, further animals were sold to buy food during the drought of 2011 and numbers have still to recover. Secondary objectives were to contribute to strengthening the local economies by injecting cash particularly to the benefit of small scale vendors and to build the assets of the most vulnerable households to enable them to withstand potential shocks.

In a registration exercise, those households that fell in the vulnerable categories and had a maximum of one goat, were identified in collaboration with the communities and local authorities. Households with no goats were provided with vouchers to the value of 72,000 FCFA (approximately $144) to purchase two goats. Households with a single goat were provided with vouchers to the value of 36,000 FCFA ($72) to enable them to buy one goat. In this way, 1240 households were identified to receive two goats, 620 each in Assoungha and Dar Tama, representing 30% of the project beneficiaries. The remaining 2894 beneficiaries each received a single goat. In this way, vouchers for a total of 5375 goats (c 90% female and 10% male) were made available to the 4134 project beneficiaries. The exact numbers of goats that changed hands are not available as beneficiaries were free to negotiate prices and a number were observed to leave the fairs with three rather than two goats. It is estimated that about a further 100 goats were sold during the fairs.

A total of 12 vendors were identified to participate in goat fairs, 7 in Guéréda and 5 in Assoungha. All vendors were required to be fully registered with national identity cards, business licenses and with operational bank accounts as well as having experience in sale of goats.

Sites for goat fairs were chosen to serve between two and seven villages. Vendors were advised in advance of the locations and timings of the fairs and of the numbers of goats required. Animals were brought to the fair sites on foot to avoid stressing pregnant females. At the beginning of the fairs, all goats were examined by veterinary service staff to ensure that they were healthy: any sick or defective animals were excluded. The majority of the animals sold in the goat fairs were procured locally in the two departments of Dar Tama and Assoungha but others were brought in from neighbouring areas.

Beneficiaries were called forward to make their purchases after verification of their project identity cards. Beneficiaries were free to make their choice of animals and to negotiate the prices with the vendors. Any balance remaining from the value of their coupons after purchase of their goats could be used to purchase other animal feed, health and other products that were available in the fairs. When leaving the site of the fairs, goats were vaccinated, wormed and marked to prevent sale or theft.

Food Vouchers for Work

Each household participating in Phase II of the FFP emergency project nominated a person to work on community projects for 6 days per month during February, March and April in return for vouchers which could be redeemed for food in special markets for the purpose. Payment was made in vouchers at a rate of FCFA 2,000 per day, a generally accepted figure for similar projects in the area.

Projects on which to work were chosen by the communities themselves. The most popular types of project were rehabilitation of roads and construction of “cordons pierreux”. Rehabilitation of roads involved clearing of bush, marking road margins and controlling erosion that had led to gully formation on the roads and affected their usability. “Cordons pierreux” make use of lines of fist-sized stones placed on the contour of fields to prevent erosion. The aim is to slow down the flow of rain water from fields and encourage its infiltration into the soil in situ with benefit for the crops being cultivated.

Vouchers earned on VFW projects could be exchanged for food in special markets organised by the project. A total of 28 markets were held, 14 in Assoungha and 14 in Dar Tama. The markets were organised around the 7 groupings of villages in each department that were used to deliver all project activities.

Agricultural training

CRS in collaboration with ONDR delivered a series of training courses on different aspects of improved agricultural practices. Both organisations have experience of delivering this type of training, particularly in the context of promotion of horticulture in eastern Chad. The courses included:

- Bio-insecticides
- Compost
- Marketing
- Post-harvest handling and
- Animal health.

The training courses targeted 25% of the project beneficiaries, who were selected by their communities as persons known to have high levels of expertise as farmers. The aim was to have the trained persons in turn train other members of their communities in a cascade system to have training reach the entire beneficiary population.

Training courses were delivered through the same groupings of villages as other project activities. Thus, each training course was delivered in the seven locations in each department and represented a very significant investment of time and effort on the part of the trainers.

Key-hole gardens

The project introduced the “key-hole garden” methodology to eastern Chad. Key-hole gardens are small kitchen gardens that recycle household waste and grey water and provide a simple way to grow nutritious vegetables for household consumption. The name derives from the appearance of the gardens when viewed from above – resembling a keyhole. The design incorporates a central basket into which composted kitchen waste can be placed along with recycled water. The approach was developed originally to establish school gardens but has been widely adapted to different contexts and is particularly useful for situations where good soil and water are limited.

CRS conducted a practical training-of-trainers course on the key-hole garden methodology taking advantage of staff members with experience of establishing key-hole gardens in Burundi as well as the significant resources that are available on the Internet on the approach. The trainers were initially SECADEV staff who in turn trained project beneficiaries through the same approach as was

used by CRS and ONDR to deliver other agricultural trainings, namely through the 7 groups of villages formed in both Assoungha and Dar Tama. ONDR staff also became involved in the cascade training that followed.

SILC

The project has also introduced Savings and Internal Lending Communities (SILC or Communautés d'Epargne et de Crédit Interne – CECI in French). A number of members come together to form a group for collective saving and to facilitate making small loans to members for income-generating activities at reasonable interest rates. SILC is an approach that CRS has used widely in contexts of resilience building as it helps to promote long-term asset building as well as building trust between members and providing them with basic skills in financial management.

A series of meetings in target villages has introduced the concept of SILC to beneficiaries and encouraged them to make the initial steps to form active groups. Such sensitisation has been carried out by a private service provider from the area who can provide on-going mentoring to SILC groups against payment of a small fee. The aim of this approach is to establish a network of private SILC service providers that can support and guide new groups without the need for external funding. Sensitisation of project beneficiaries about SILC was carried out in April in Dar Tama and in May in Assoungha.

Final evaluation

A final evaluation of the combined projects – Mitigating Food Security Shock in eastern Chad, Phase II and Building Resiliency in Eastern Chad – was carried out during May 2013. The evaluation involved a mixture of document review, a quantitative survey of beneficiaries and qualitative evaluation through the use of key informant interviews, mainly with CRS and SECADEV staff involved in the implementation of project activities, and focus group discussions with project beneficiaries and vendors.

Quantitative survey methodology

A survey of beneficiaries was undertaken between 14 and 18 May 2013 in Guéréda and between 19 and 23 May 2013 in Farchana. A questionnaire was developed specifically for the purpose of the survey, based in part on the questionnaire that had been used for the project baseline in late January 2013 with additional questions added to address aspects of food security and permit comparison with surveys conducted for the preceding FFP project. Additional questions were also developed to investigate beneficiaries' views on the components of the project, to gauge reactions as a means to inform future interventions with similar activities.

A half-day training course for interviewers was held in each of Guéréda and Farchana. As virtually all parts of the questionnaire had been used previously (largely by the same interviewers), no modification was made following the training. The final version is shown in Appendix 1. At the end of the training, interviewers worked in pairs to role play interview situations. This in turn was followed by a question and answer session to ensure that the questionnaire was fully understood by all the interviewers. The interviewers were selected for their fluency in French, the language of the questionnaire, and their knowledge of local Arabic and other local languages of the project areas in

which interviews were held. Where interviewer and interviewee lacked a common language, intermediaries who were known to the interviewees were used as translators.

Sampling methods used

A two-stage sampling procedure was used to select villages to target. Thirty villages from among the 57 involved in the project were selected by the Probability Proportional to Size (PPS) method. From each village a random selection of 14 beneficiaries was made using a random number set generator along with the lists of beneficiaries compiled by the project. A total of 410 beneficiaries were thus identified for individual interviews. No adjustment factor for two-tier sampling was used as this had not been done in the baseline survey on the basis of advice from a CRS statistician.

Selection of villages

The villages selected for the survey and the numbers of beneficiaries interviewed in each are shown in Table 4 below.

Table 4: Sample villages and numbers of beneficiaries interviewed in Assoungha and Dar Tama, May 2013

Department	Canton	Village	Sample size
Assoungha	Moulou	Abogourouma	14
		Abougouleme	14
		Delep	14
		Dodorok	14
		Hidjer	14
		Hilele	14
		Kororak	14
		Koumoki	14
		Loumba Massalite	14
		Ngatian	14
		Nourkouni	14
		Tamam	14
		Tirlanga	14
		Tolko	14
		Torlabit	14
Dar Tama	Fare	Andjile	14
		Ara	14
		Enekeli	14
		Gouboulele	14
		Kouka	14
		Obe	14
	Lima	Dawaye	14
		Dourkoule	14
		Gaba	14
		Habilie 2	9
		Kissilet	14
		Koumoudjou	14
		Lima	14
		Minekhrate	14
		Olkobe Eck	14
		Total	**405**

Targeting of beneficiaries for interview

An online random number generator was used to identify sets of 14 beneficiaries from the target villages to be interviewed. Project beneficiaries were given advance warning that a team would be coming to conduct interviews. On arrival in the village, a roll call of the specific individuals to be interviewed was carried out. The purpose of the survey, to collect information on beneficiaries perceptions of the project activities, their food security, livestock numbers and sources of water was explained to the village and the fact that the selected 14 individuals were chosen to represent the views of the entire community. In cases where some of the pre-selected beneficiaries were not present, another individual matched for age and gender to the original one was substituted for interview.

Interviews were conducted in local languages by a team of 10 enumerators in each of Dar Tama and Assoungha. The full complement of 14 interviews was carried out in all villages except one, Habilie 2, where the semi-nomadic community of agro-pastoralists was largely absent. Only two of the 14 pre-selected beneficiaries were found and a further 7 substitute beneficiaries for a total of 9 interviews.

Qualitative survey methods

In addition to the quantitative survey of project beneficiaries, additional qualitative information was collected by a combination of methods. These included document review, mainly of internal project reports, key informant interviews particularly with CRS and SECADEV field staff involved in the implementation of project activities, and focus group discussions with beneficiaries and vendors. Brief discussions were also held with local administration representatives and village chiefs to hear their views of the project and its impacts.

Results of the quantitative survey

The information collected during interviews with beneficiaries was captured electronically as Excel files. Data analysis was carried out in a combination of Excel and SPSS according to the nature of the analyses required.

Demography of the survey population

The numbers and gender breakdown of the beneficiaries interviewed during the surveys are shown in Table 5 and further details of the survey population are given in Table 5.

Table 5: Demography of the survey population

Department	Numbers interviewed		Total
	Men	Women	
Assoungha	61	149	210
Dar Tama	73	132	205
Total	134	281	415

Table 6: Further details of the survey population

	Assoungha		Dar Tama	
	Men	**Women**	**Men**	**Women**
Average age (years)	58	49	55	47
Average household size	7.5	5.7	7.7	5.9
Numbers of widows/widowers	5	51	17	32
Numbers of handicapped	2	11	6	7

Access to water

Table 7 below shows the percentages of respondents who obtain the bulk of their household water supplies from different sources.

Table 7: percentages of the survey population with different access to water

Water source	**Assoungha n = 210**	**Dar Tama n = 205**	**Overall n = 415**
Public water supply	0	0.5	0.2
Bore well with pump	12.4	5.4	8.9
Covered bore well	0.4	0	0.2
Covered source	0	1.0	0.2
Rainwater	0	0.5	0.2
Uncovered dug well	3.8	53.7	28.4
Uncovered source	0.9	3.9	2.4
Pond, river, water course	81.4	9.3	45.8
Water tanker	0	24.9	12.3
Other	0.9	0	0

The figures show that only about 9% of those interviewed had access to clean water (from a bore well or public water supply). A further 12% overall had access to clean water supplied by water tankers. This was restricted to Dar Tama where UNHCR has been providing clean treated water to some villages. The majority of the rest obtained their water from open wells, usually located in nearby dry wadis. The quality of the water from these open wells was seen to be poor. In focus group discussions project beneficiaries repeatedly raised the issue of water supplies and the need for both better access in terms of both quantity and quality. The benefits of clean water were well recognized and we heard repeated anecdotal evidence of extreme individual efforts to secure clean drinking water. In Dourkoule village in Dar Tama, for example, we heard of individuals travelling by donkey to Guéréda , some 28 kilometres away, to obtain clean water. In Kororak near Adré we heard of routine accessing of clean water from a borewell close to Adré, some two hours trip by horse-drawn cart, at considerable cost for transport. Also in Kororak, we heard of efforts by the villagers to obtain their own well with assistance from a local NGO, Almy Nadif (clean water in Arabic). The villagers contributed CFA 150,000 for an exploratory well. Unfortunately good quality water was not found and their money was returned. Among five other villages in the vicinity which also contributed to exploratory wells, only one found good quantities of good quality water.

Food insecurity

The percentages of beneficiaries expressing different conditions of food insecurity access during the final evaluation are shown in Table 8. These figures suggest a higher degree of food insecurity in Assoungha than in Dar Tama.

Table 8: Percentages of beneficiaries expressing different conditions of food insecurity

Condition	Assoungha	Dar Tama	Overall
Worry about food	**73**	**44**	**59**
Eat just a few kinds of food	**50**	**47**	**48**
Eat a smaller meal	**76**	**51**	**64**

The same questions were used in previous surveys and it is therefore possible to compare the responses. Table 9 shows the percentages of beneficiaries responding to the same questions in the past compared to their responses this time.

Table 9: Comparison of percentages of beneficiaries expressing different conditions of food insecurity in this and previous surveys

Condition	Phase 1 Baseline June 2012 n = 786	Phase I Final Evaluation October 2012 n = 713	Phase II Final Evaluation May 2013 n = 415
Worry about food	93	47	59
Eat just a few kinds of food	67	44	48
Eat a smaller meal	80	58	64

The figures suggest that the level of food insecurity found in the final evaluation of Phase II was slightly higher than that found in the final evaluation of Phase I in October 2012 but lower than found in the Baseline survey for Phase I in June 2012. This finding is not considered to be particularly surprising as the beneficiaries of Phase II of the project were deliberately selected to represent the most vulnerable communities in the project area. As such, they might well be expected to have higher levels of food insecurity than the overall population. The figures do suggest, however, that there is on-going chronic food insecurity in both Assoungha and Dar Tama, particularly for the most vulnerable sections of the community, in spite of much improved conditions since the drought of 2011.

Numbers of meals consumed

The survey asked for information on the numbers of meals typically being consumed each day by children and adults in the surveyed households. The results are shown in Table 10.

Table 10: Percentages of households eating different numbers of meals per day

Number of meals per day	Assoungha		Dar Tama		Overall	
	Children	Adults	Children	Adults	Children	Adults
1	0	4	6	36	3	17
2	20	67	46	52	33	59
3	78	30	46	18	63	24

The figures show that the majority of children are consuming three meals per day and only a few are only getting one meal per day. The numbers of meals being enjoyed by both children and adults are higher in Assoungha than in Dar Tama, a finding that is at odds with the earlier suggestion that food insecurity appeared slightly higher in Assoungha.

Table 11 compares the overall figures for numbers of meals for children and adults obtained in the final evaluation of Phase II in May 2013 with the figures obtained in the baseline survey in January 2013. The information suggests that there has been an improvement in the numbers of children enjoying three meals per day during the lifetime of the project. There has also been an improvement in the numbers of meals being consumed by adults but the increases are not so marked and 17% of adults continue to report that they are only eating a single meal per day. Once again, these findings suggest that there is some level of on-going chronic food insecurity in the project areas.

Table 11: Comparison of percentages of households eating different numbers of meals per day in the baseline and final evaluation surveys

Number of meals per day	Phase II Baseline survey January 2013		Phase II Final Evaluation survey May 2013	
	Children	Adults	Children	Adults
1	40	65	3	17
2	35	25	33	59
3	25	10	63	24

Numbers of poultry and livestock

The percentages of surveyed households which have holdings of different poultry and livestock are given in Table 12 and the average holdings are shown in Table 13.

Table 12: Percentages of households with different types of livestock and poultry

Type of livestock	Assoungha	Dar Tama	Overall
Poultry (chickens or guinea fowl)	68	56	62
Sheep	22	31	27
Goats	86	85	86
Cattle	12	12	12
Horses	22	15	20
Donkeys	80	85	83
Others	2	6	4

Table 13: Average numbers of poultry and livestock held

Type of livestock	Assoungha	Dar Tama	Overall
Poultry (chickens or guinea fowl)	5.2	3.5	4.4
Sheep	4.0	3.7	3.8
Goats	2.7	3.4	3.0
Cattle	1.6	2.3	2.0
Horses	1.1	1.3	1.2
Donkeys	1.4	1.4	1.4
Others	1.6	1.4	1.4

The percentages of households owning different types of poultry and livestock are very similar in Assoungha and Dar Tama. The most commonly owned animals are goats and donkeys which are owned by more than 80% of households. Poultry are also owned by over half the households. The average numbers of animals owned are quite modest. The percentages of households reporting having goats are lower than might be expected since all beneficiaries were provided with at least one goat in the goat fairs. However, managing animals is not without problems and may well be something that is difficult for some vulnerable households. It would be quite easy to imagine that some households had chosen to sell their goats or donate them to a relative to avoid the day-to-day difficulties of providing housing, feed and water. This is, however, a matter of speculation for which we have no supporting information. The question of what had happened in the 14% of households which reported no goats would be worthy of follow-up in the months to come.

Numbers of all types of livestock and poultry recorded in the final evaluation are slightly higher than the numbers recorded during the baseline survey in January 2013 but remain lower than the numbers of livestock that households reported holding before the thefts and losses of the years of insecurity and the sales during the drought of 2011. The finding of increased numbers might well be supportive of the idea that some beneficiaries have cashed in their goats and invested the proceeds in other forms of livestock but this would need to be confirmed.

Improved agricultural methods

The percentages of farmers reporting the use of different improved agricultural practices are given in Table 14.

The most widespread practice was the use of organic manure, including both animal manure and compost, which was reported by over two thirds of households. Even though land preparation had yet to start in the project areas, evidence of manure and compost having been deposited on fields ready to be spread and incorporated was clear to see.

Almost 50% of respondents reported that they cultivated household gardens. In the baseline survey, 25% responded positively to the same question. At that point in time, the concept of key-hole gardens had not been introduced to beneficiaries so it was clear that they were reporting other types of garden, possibly along the edges of wadis where vegetable cultivation is often practiced. The types of gardens being reported in the final evaluation probably represented a mixture of both types of gardens. It seems reasonable to assume that the bulk of the increased percentage reporting

Table 14: Percentages of farmers using different improved agronomic practices

Agronomic practice	Assoungha	Dar Tama	Overall
Organic manure	67	80	73
Mulching	38	33	35
Bio-insecticide	10	11	10
Soil conservation	29	20	25
Good management of livestock	13	34	24
Production of seedlings	9	11	10
Improved post-harvest practices	45	35	40
Household garden	44	49	46
Other	1	5	3

kitchen gardens in the final evaluation were meaning key-hole gardens, suggesting that approximately 25% of beneficiaries had established such gardens.

Overall, 40% of respondents reported using improved post-harvest methods. No clarification was sought as to what precisely was meant in these responses. However, it was clear from focus group discussions that drying of tomatoes and okra to enhance their storability was a topic of great interest to women beneficiaries. Their appreciation of improved hygiene, appropriate cutting of material and adequate drying time had clearly been influenced by the training courses that had been delivered. Also the use of chillies, garlic and other vegetable products to reduce insect infestations in stored grain and pulse crops was mentioned as something that had been reinforced by the trainings.

Mulching and the incorporation of crop residues into the soil to improve fertility and water holding capacity was also reported widely. Observation of fields suggested that the amounts of crop residues that were left on fields were rather scanty, the bulk probably having been grazed by livestock. The erratic nature of rainfall and the sandy nature of much of the soil in eastern Chad suggest that improvement of the organic matter content of the soils would be highly advantageous in improvement of their water holding capacities to the benefit of crop production. But clearly this is something which needs to be balanced against the need for fodder.

Similar numbers of respondents reported practicing good management of animals and soil conservation. Focus group discussions emphasised that the importance of good nutrition of livestock and of deliberate collection and feeding of quality feeds such as groundnut haulms had been taken on board during training, as had the need for good housing and hygiene. Similarly, the use of cordons pierreux to control erosion was reported as something that farmers routinely practices, although it was stated that this was done on a small scale and as such the benefits were not comparable with the benefits that accrued from application on a much larger scale as had been possible through the group approaches used in the programme of vouchers for work.

Numbers of improved agronomic methods practiced

The numbers of improved agronomic method being used by farmers are reported in Table 15 below. The figures suggest that very few farmers are using no improved practices and that very few are implementing the full range of possible options. Generally speaking, farmers typically appear to be using three or four improved practices which probably correspond to the ones identified with greatest frequency in Table 14 above.

Table 15: Percentages of farmers practicing different numbers of improved agricultural practices

Number of improved practices used	Assoungha	Dar Tama	Overall
0	4%	1%	3%
1	22%	18%	20%
2	22%	31%	27%
3	28%	24%	26%
4	14%	14%	14%
5	7%	7%	7%
6	1%	3%	2%
7	<1%	3%	2%

Appreciation of project activities

Project beneficiaries were asked during their interviews which activities of the project they had found of greatest interest. Care was taken to frame the question in a general manner and to avoid leading interviewees to mention specific activities. In this way, it was hoped to receive a truly independent report of what had really impressed beneficiaries and what they had found most attractive in the project. The results are shown in Table 16.

Table 16: Percentages of respondents appreciating different activities of the project

	Percentages of farmers expressing appreciation		
Project activities	Assoungha	Dar Tama	Overall
Bio-insecticide training	18	35	26
Compost training	17	38	27
Marketing training	6	33	19
Key hole garden training	32	72	52
Post-harvest training	10	29	20
Animal health training	17	53	35
VFW rehabilitation of roads	60	38	49
VFW cordons pierreux	21	55	38
VFW markets	77	66	71
Goat fairs	67	64	66
SILC sensitisation	3	40	21

The most generally appreciated aspect of the project activities was the food markets associated with the VFW programmes. This finding is not surprising. We have already observed earlier in this report that there are indications of on-going chronic food insecurity, particularly among the most vulnerable households in Assoungha and Dar Tama. The VFW food markets made additional food available to beneficiary households and it would seem entirely reasonable that this would be greatly appreciated in circumstances of food insecurity. Provision of additional food would also likely be

highly appreciated even in the absence of pressing food insecurity as it might add diversity to the diet and improve it otherwise. Further consideration will be given later in this report to the purchases that were typically made during the food markets and the implications for household food security.

Goat fairs were also highly appreciated. The nature of the assistance provided through the goat distributions was, however, rather different from that provided in the food markets. The goat distributions were intended primarily to contribute to long-term asset building that would increase the ability of beneficiary households to resist the effects of possible future shocks. Unless they were converted immediately into cash, they would not provide any help in addressing pressing food shortages. In fact, they could be construed as representing a further burden on households that were already in difficulty: the need to house, feed and water livestock might require resources that were simply not available.

Key-hole gardens were particularly highly appreciated in Dar Tama. In fact, all the activities that involved training of any kind were markedly more highly appreciated in Dar Tama than in Assoungha. It is possible that the effectiveness of the training and beneficiaries' appreciation of it was influenced by the personalities of the trainers in the different departments and their training methods. Similarly, the effectiveness of the cascade training by the beneficiaries who were themselves trained may well have influenced how widely training reached and therefore how well it was appreciated. Information from focus group discussions suggested that the cascade training model had in fact worked in most cases but that there were exceptions where the training information had not been passed on to the rest of the community. No clear patterns were discernable and it is impossible to clearly attribute the differences in perceptions of the training activities without further investigation.

In the case of SILC sensitisation, it is possible to be more certain. At the time of the final evaluation surveys, sensitisation was well advanced in Dar Tama and many groups had already been formed. In Assoungha, in contrast, the sensitisation process had just begun and most of the beneficiaries had not yet been exposed to SILC and would not mention this as an activity that had attracted their attention.

In the cases of VFW projects, there was genuine appreciation expressed in focus group discussions for the benefits that accrued to the communities apart from the immediate benefits in food. The improvements in roads were clearly recognized to benefit transport to and from regular markets, movement of ill persons to seek medical help and other situations where transport was involved. Similarly, cordons pierreux were recognized to contribute to erosion control and enhanced infiltration of water into the soil.

Achievements of the project against indicators

CRS and SECADEV developed a series of indicators in meetings at the end of January against which to evaluate the achievements of the project. In the following sections, we consider the achievements of the project against these indicators and reach conclusions about how successfully they were achieved.

Indicator 1: Numbers of communities with assets to mitigate shocks

A target of 14 communities with assets to mitigate shocks was set. We assume that this was intended to cover the rehabilitation or construction of community assets undertaken in the 14 VFW programmes that were undertaken. In fact, each of these programmes affected several communities and we can conclude that more than 14 communities ended up with improved assets. In addition, the distributions of goats through the goat fairs also provided individuals and communities with assets that will increase their resilience in the face of possible future shocks. We therefore consider this indicator to have been met in full.

Indicator 2: At least 20% of households using at least 3 farming techniques

The data presented in Table 15 clearly indicate the percentages of farmers reporting the use of different numbers of improved agricultural techniques. Summing the percentages of farmers in the categories reporting use of 3, 4, 5, 6 and 7 improved techniques suggest that 50% of farmers in Assoungha and 51% of farmers in Dar Tama were using at least 3 farming techniques. The most commonly adopted practices were use of organic manure – both farm yard manure and compost – cultivation of household gardens and use of improved post-harvest technologies to reduce losses and improve crop product conservation. This indicator has been greatly exceeded.

Indicator 3: 150 households with a key-hole garden

The uptake of key-hole gardens has exceeded all expectations, particularly in Dar Tama. By the end of May a total of 1194 key-hole gardens had been established in the project villages, 853 of which were in Dar Tama and 341 in Assoungha. It seems clear that the key-hole garden methodology meets a real need in the target communities, probably that for a supply of green vegetables at a time of extremely dry conditions and limited vegetable availability. The lower uptake of key-hole gardens in Assoungha agrees with this suggestion as cultivation of horticultural crops along wadis is much more widespread there than in Dar Tama and green vegetables are much more accessible. It will be of particular interest to follow up use of this technology during coming months and it is to be hoped that future CRS/SECADEV projects in the same areas will be able to monitor the extent to which households continue to cultivate their key-hole gardens throughout the rainy season and the extent to which the practice might spread further. This indicator has been exceeded several fold.

Indicator 4: 5428 goats distributed

According to CRS payment reports the amount paid to vendors in goat fairs amounted to CFA 193,500,000 or equivalent to the payment for 5375 goats at CFA 36,000 each. However, it is known that beneficiaries negotiated hard and in many cases those with vouchers for two goats were observed to leave the fairs with three animals. In Assoungha, a precise tally of goats leaving the fairs was kept and it is known that an extra 79 goats changed hands due to this kind of negotiation. For Dar Tama, exact figures are not available but a conservative estimate is that an additional 30 goats were bought by beneficiaries within their voucher allowances. This would bring the total number of goats distributed to 5484, or 56 more than the target for this indicator. We conclude that the indicator was achieved in full.

Indicator 5: 4134 households with at least one goat

It is clear from project reports of the goat fairs that the distribution to beneficiaries of vouchers to purchase goats went ahead as planned and that the distribution of goats in the goat fairs was also successfully implemented. We can conclude that all 4134 project beneficiaries received at least one

goat and that many received two or even three animals. The majority of goats that changed hands were pregnant females and it is likely that many of these have now given birth. A conservative estimate would be that about 9,000 goats have been added to the populations of the 57 villages involved in the project or an average of slightly over two goats per beneficiary household.

This is not to say that all households continue to have at least one goat, however. Reports were received by CRS and SECADEV of a small number of animals that had died and these reports were repeated in a few of the focus group discussions held as part of the final evaluation. However the numbers involved were very small and it is unlikely that they accounted for more than a handful of animals at the very most.

Information collected during the surveys clearly suggests that not all households continued to own goats in late May, approximately three months after the goat fairs. The figures in Table 12 indicate that 86% of beneficiaries interviewed stated that their households owned goats while 14% stated that their households did not. Unfortunately, these figures did not become clear until after data collection was completed, data captured electronically and initial analyses carried out or it would have been possible to probe this issue further in focus group discussions. We can therefore only speculate that a minority of households appear to have sold or otherwise disposed of the goats they received through goat fairs for reasons that are at present unknown. This issue is worthy of further investigation to understand what exactly has happened to the goats that appear to be missing and why. We suggest that CRS as a matter of urgency follow up to discover whether the figures collected in the survey are accurate and, if so, what were the reasons for disposal of some animals. This could be done rapidly and at little cost through focus group discussions with beneficiaries in a few communities.

Indicator 6: 80% of beneficiaries satisfied with goat distribution

The figures shown in Table 16 indicate that 66% of farmers appreciated goat fairs, rather less than was hoped for. It is important to understand, however, exactly how beneficiaries were asked about project activities. In order to avoid influencing responses, no specific activities were mentioned. Beneficiaries were asked in a general way to tell which activities they had found most interesting, most attractive. The beneficiaries therefore had to recollect what the project had done and then reach their decisions about which activities they had most appreciated. It seems likely that this approach tended to elicit responses about the most recent project activities as the ones which came most readily to mind. Goat fairs as one of the earlier activities carried out in January and February may well have suffered as a consequence and been mentioned less frequently simply because of the time that had elapsed and other activities that had intervened.

In focus group discussions, the order in which activities were mentioned was taken to signify which had been most generally appreciated. As in individual interviews, no mention of specific project activities was made to avoid leading the groups in particular directions. In virtually all focus groups, food markets and goat fairs were the first thing that beneficiaries immediately brought up and in that order. Mention of other activities followed slowly and with some difficulty but generally in the order of frequency in Table 16 and we conclude that this was a true reflection of how beneficiaries appreciated the different activities, notwithstanding our belief that elapsed time may have affected the responses.

Indicator 7: 40 SILC groups established

Sensitisation of project beneficiaries on SILC was the last activity to be initiated and was largely carried out during May. The process was initiated in Dar Tama and continued in Assoungha in parallel with the final evaluation interviews. Not all project villages were sensitised – just 8 villages in Dar Tama and 11 in Assoungha have been covered. In spite of this a total of 77 SILC groups have already been formed, 40 in Dar Tama and 37 in Assoungha. A further 32 groups are already in the process of forming, 20 more in Dar Tama and 12 in Assoungha. The process of rolling out SILC is therefore on-going. The target of 40 groups has already been exceeded and it seems likely that many more groups will be formed as a high level of interest has already been shown.

Indicator 8: 80% of SILC members took a loan

SILC groups usually have a fixed lifetime of 6-12 months during which members contribute regular savings and can take loans. At the end of the fixed period, the money that has been saved and the profits from the interest on the loans made are distributed between members before the process begins again. In the case of the current project, the SILC groups have just been formed and only the first ones have started to make regular contributions to build up a fund from which to make loans. The process of making loans and collecting repayments with interest has still to start. It is therefore too early for this indicator to have been achieved. In fact, the SILC methodology is not very well suited to very short-term projects as the period is too short to comfortably accommodate a full SILC cycle. The progress of the SILC groups will have to be monitored through future projects in the same areas and with the same beneficiaries. Fortunately, follow up entails little investment of resources and effort as the groups are essentially self-sufficient.

Prices in food markets and goat fairs

The issue of the prices charged in the food markets and goat fairs organised by the project is one that has exercised the minds of CRS and SECADEV extensively. It was observed that prices, particularly those for millet, were consistently higher in project food markets than in normal weekly markets, regardless of whether the project markets were closed or open (i.e., specially organised fairs exclusively for project beneficiaries or operated in parallel with the regular market). The suspicion arose that vendors, particularly those in Guéréda where prices were generally higher than in Farchana, were artificially inflating prices and profiteering at the expense of the beneficiaries and the project. Attempts were therefore made to analyse the situation to determine whether the margins being charged by vendors were reasonable or not.

The natures of the markets in the two major areas of project intervention, namely Dar Tama around Guéréda and Assoungha around Farchana, are quite different. Farchana lies on the main route between Abeche and Sudan, a major artery in trade between eastern Chad and its neighbour. Large volumes of commercial traffic pass through Farchana in both directions taking goods to and from Sudan. The population of the Farchana area is large, swollen by significant numbers of Sudanese refugees in IDP camps in the area and the local markets are active. Guéréda in contrast lies off the beaten track in a somewhat isolated position, with less developed transport links. The population density is lighter and communities are widely dispersed. Overall levels of demand in the markets are lower and numbers of traders and volumes of business too.

The underlying agricultural economies of the two areas also differ. The dominant cereal crop in both areas is millet which is widely cultivated by most farmers. The range of other crops grown appears to be greater in Farchana than in Guéréda , possibly due to slightly more favourable rainfall conditions. Groundnuts are more widely grown in Assoungha than in Dar Tama. There are also large areas of horticultural crops grown in Assoungha in the dry season, much more than is the case in Dar Tama. As the staple cereal, millet is mainly grown for home consumption and relatively little enters the market. Farmers only sell millet when faced with pressing need to generate cash. Farmers in Assoungha have wider options for raising cash from the sale of other agricultural produce than those in Dar Tama and equally traders have more options for dealing too. Both areas import foods such as sugar, flour, salt, rice and macaroni from Sudan for sale in the local markets. Local produce is also marketed – vegetables such as tomato and okra (mainly in dried form but also in limited quantities as fresh produce), onions, garlic and so on. Vendors from Assoungha sell outside the immediate area, mainly to Abeche and sometimes as far as Ndjamena when prices make this worthwhile and estimate that about 30% of their business goes in this direction. Vendors in Guéréda sell less outside their immediate area, mainly in millet sales to the north.

It is clear that the bulk of the food for project markets comes from outside the immediate area – millet comes from wholesalers in Birak and Adré and other items such as sugar, rice, flour and so on come predominantly from Sudan. CRS has attempted to answer the question of whether the costs of acquiring foods and transporting them to the project markets justify the prices being charged and the margin that undoubtedly exists between these prices and the prices in the regular markets.

A good analysis of the different costs has been made and some information collected on the probable scale of the charges. The information suggests that transportation, handling and other incidental costs would add approximately FCFA 100 per coro to the wholesale price of millet. But no information was collected on the wholesale prices paid and the approach has otherwise been quite informal. It is not clear, for example, to what extent the assembled information has been triangulated. It is therefore very difficult to know if like is being compared with like in comparing the prices charged in local markets with the prices charged in VFW markets for millet bought from wholesalers at possibly quite different prices.

There is was a strong indication that traders in Guéréda in particular were highly organised and had formed a cartel to limit direct competition between traders in the food markets in 2012: most traders specialised in a single commodity, there were only two or three selling the same item in any market and prices were uniform. This raised the suspicion that there might be profiteering going on and the pattern of selling and prices observed in 2013 only heighten this suspicion. But as yet there is no clear proof one way or the other.

From our limited understanding of the millet market dynamics, it seems likely that the grain that appears in project markets originates in the same area, is purchased by agents in the months following harvest (at prices similar to and possibly even lower than the 300 to 400 CFA per coro seen in Guéréda markets in April and May 2013), bulked and sold on to wholesalers in neighbouring towns who store it for several months to wait for prices to rise. When prices begin to rise, the wholesalers then release their stocks back onto the market, either for sale locally or for sale to the north, depending on where demand is greatest and prices highest.

When viewed in this light, the price differentials seen between project markets and regular local markets seem less unreasonable. Doubling the CFA 100 per coro estimated to be added to the price for bringing millet from wholesalers back into the area for project markets to take account of the costs of moving it out in the first place (costs that could well have been higher because of the absence of economies of scale), and adding in profit margins of say 20% for the agents buying from farmers, the wholesalers and the vendors who bring the millet back (often the same agents who originally procured from farmers) would more than double an initial purchase price from farmers of say CFA 300 per coro and lead to prices not dissimilar to those seen in Guéréda in both the markets in 2012 and those in 2013 and allay any suspicions of profiteering.

All the above is, however, speculation based on a fairly poor understanding of the way the millet markets work and really needs to be confirmed. We therefore suggest that a more comprehensive analysis of the costs associated with supplying the food markets is necessary and recommend that CRS and SECADEV undertake such an exercise before any future round of food for work activities is initiated. This would entail checking millet prices, costs and profit margins right along the supply chain from farmers through buying agents to wholesalers in Birak and Adré and on to market vendors. Similarly, checking with importers of foodstuffs from Sudan to verify costs at source and the costs along the supply chain should be evaluated and cross-referenced – transport, handling, warehousing, and so on – to fully understand their nature and scale. Good comprehensive information of this type could go far to confirm or allay fears of profiteering and provide strong ammunition to use in negotiating future prices with vendors. However, it should be stressed that our initial conclusion, at this stage, is that our fears of profiteering appear to be unjustified. We believe that vendors were extremely happy with project markets simply because they were able to expand their volumes of trading rather than because of any price inflation they practiced.

The same issues that apply to food articles in the markets associated with Vouchers for Work also apply to the prices of goats in goat fairs. It was also observed that the prices charged for goats in Dar Tama were higher than those in Assoungha and there appeared to be less scope for negotiation between beneficiaries and vendors in Dar Tama than in Assoungha, again leading to suspicion that vendors had conspired to fix prices at artificially high levels. A similar analysis of costs along the goat supply chain would also be justified.

CRS has also considered the use of public calls for offers to supply food markets as an alternative to ensure better value to beneficiaries. This approach was used in the past and appeared to result in lower prices to beneficiaries in the markets, although the comparability of historical prices in this context can be questioned. However, this form of provisioning favours a few large wholesalers over the smaller traders and seems to be of limited value in strengthening the foundations of local markets. We recommend that this approach should not be used and that CRS continue to support a role for small and medium-sized vendors as we believe that the long-term reinforcement of local markets will be better served by building the resources of this type of traders who play a more active role and compete in the regular small markets.

Food items purchased in VFW markets

With the help of ONDR, quantities of produce sold and prices were monitored in the VFW food markets. In both Assoungha and Dar Tama the most popular purchase by far was millet. Large

quantities of sugar were also purchased. The relative magnitude of sugar purchases to millet purchases contrast markedly with the pattern observed in the markets held in 2012. At that time, virtually all purchases were of millet with only very small quantities of sugar bought, especially at the beginning of the markets in June. In 2013, smaller quantities of millet were bought and larger quantities of sugar. This is compelling evidence of the difference in the conditions of food security in the two years: emphasis on the staple cereal in 2012 showed that there was real need at that time while greater emphasis on the luxury addition of sugar to the diet in 2013 suggested a much better level of food security.

Effectiveness and sustainability of project activities

Both projects undertaken in the first half of 2013 aimed to assist the most vulnerable households to continue to recover from the effects of the drought in 2011 and to build assets that will contribute to increased resilience of those households to potential future shocks. We must then ask to what extent the project activities have contributed to those aims and to what extent they will continue to contribute to them in future.

Goat fairs

Goat fairs were intended to help rebuild animal numbers among the most vulnerable communities and households in the project areas. Over 5000 goats were distributed, the majority of them pregnant females which will have subsequently given birth, among the 4134 beneficiary households in 57 villages. Taking into account the new kids born to the female goats, we can estimate that around 9000 animals were added to the population. The average numbers of goats per household increased from much less than one to three. We can therefore categorically state that the primary objective of increasing goat numbers in these vulnerable communities has been served. Do we think the fact that only 86% of households reported owning goats at the end of the project in any way vitiates the approach of goat fairs as a vehicle to rebuild livestock numbers? No, it is entirely natural and to be expected that some beneficiaries are not able to manage goats and will elect to dispose of their animals to use the funds generated for some other form of asset building. We have no reason to believe the animals concerned have left the target communities. Would a different targeting strategy to identify recipients of goats in goat fairs have led to a higher percentage of households retaining their animals? Possibly, but we do not know enough about those who have disposed of their goats to help define that strategy. It would probably be complex and blur the clear definitions of vulnerable households that have been used and is therefore to be avoided.

Will the goat fairs contribute something sustainable to the target communities? We believe so. The extra goats owned by vulnerable households represent valuable assets that can help to generate cash in case of need. The training in animal nutrition and health care that proceeded goat fairs will also continue to stand project beneficiaries in good stead beyond the project lifetime. With female goats that continue to breed, they also contribute an additional source of income as surplus animals can be sold in future. The goat fairs thus contribute doubly to increasing the resilience of vulnerable households – rebuilding assets and providing future income streams. Hopefully, future involvement of CRS and SECADEV in the project areas will present opportunities to follow up goat numbers among beneficiaries and income they generate.

Vouchers for Work

The aims of the VFW activities of the project were twofold. Firstly, they aimed to improve infrastructure or community assets in the target areas. Secondly, they aimed to provide vulnerable households with an opportunity to work and contribute to household income at a time of year when alternative employment opportunities are lacking or require movement out of the region. The work was paid in vouchers that were redeemed for food in the project markets thus contributing to improve household food supplies and protect existing food and seed stocks.

The improvements in infrastructure – e.g. improved roads and improved land management – were highly appreciated by beneficiaries who fully understood the immediate and longer-term advantages they brought. The costs of these improvements over and above the value of the food vouchers issued for labour were modest and represent good value for the investment. The additional food resources provided through the VFW programme were of direct and immediate benefit to households, enabling them to improve their food security and nutrition as shown by the improvement in numbers of meals per day enjoyed by both children and adults.

Both aspects of the VFW programme – infrastructure improvement and improved food security and nutrition – will also continue to bring benefits beyond the immediate lifetime of the project. Improved roads provide better access to markets, health care and other services. Improved land management will be rewarded by better and more stable crop yields. Improved food availability helps maintain the health and physical well-being of the project beneficiaries and protects assets, including seed stocks. Working as a group on infrastructure projects has helped build community cohesion and beneficiaries have seen that they can take steps themselves to improve their situations by group action. The impacts of the VFW programme were achieved efficiently and will be sustained beyond project.

Agricultural training

By their very nature, the impacts of training are not immediately obvious. The initial impact is on the knowledge and understanding of the persons who were trained. Visible impacts only become evident when the knowledge and understanding are acted upon and behaviour changes. For most of the training courses provided to project beneficiaries it is still too early to see such changes in behaviour as there is very limited agricultural activity during the dry season. An added complication is that only one quarter of project beneficiaries received direct training, those trainees being expected to train others in turn. This creates a further step and delay between the initial training and its effects becoming visible in changed behaviour.

What is clear, however, is that the first two steps have been carried out effectively. In focus group discussions, we were repeatedly told of the training courses and their content by the beneficiaries who had participated directly. They had absorbed the messages of the training and were able to transmit them to others. Others who had not participated confirmed that they had received information about the training and the main messages. This was not uniformly the case as some people had missed out on the information. Our focus groups helped to remedy this as they often became review sessions on the training courses that had been provided.

In the quantitative survey, we asked questions about the agricultural practices that beneficiaries used. There appeared to have been increase in the numbers of households using different practices

and more households reported using greater numbers of practices that was recorded in the baseline survey. However, it is difficult to differentiate the impact of greater knowledge and understanding allowing beneficiaries to recognize that they are already using some improved practices as opposed to real changes in behaviour.

For some training there has already been an opportunity to put into practice the learning. For example, animal health and nutrition training was provided before the goat fairs and there has been time to see the effects on management of animals. There is some anecdotal indication that housing and nutrition information has been taken aboard by beneficiaries. But more systematic follow-up of animal management is required to be sure of the long-term benefits of the training and their sustained impact.

Key-hole gardens

The key-hole garden activity of the project has proven highly successful with beneficiaries and the idea has been taken up and put into practice by far more people than expected. There is also evidence that the idea has been taken up and implemented by others who are not project beneficiaries. This bears witness to the effectiveness of the training and demonstrations that were provided, to the success of the cascade training model and to the general receptiveness of the population of the project areas to accept and try new ideas.

It is early days to evaluate the long-term impact that key-hole gardens are likely to have. Only time will tell whether gardens are maintained and continue to contribute to household nutrition, although the enthusiasm with which the practice has been adopted suggests a positive future.

SILC

Sensitization of beneficiaries and formation of SILC groups only started relatively late in the lifetime of the project. Reaction has been very favourable and the target for the number of groups to be formed has been easily exceeded. Clearly, the SILC model resonates with beneficiaries, as might well be expected given the number of other farmer groups with similar objectives that already exist in the project areas. SILC adds some features that the other groups do not have, however, notably the existence of local service providers who can support and guide group activities, and this may well help to ensure their futures. We can conclude that the early stages of SILC implementation have been very effective but cannot yet reach firm conclusions about the sustainability of the approach.

In summary, implementation of the five main project activities has been very effective. The responses of beneficiaries to all have been positive. Long-term benefits will definitely accrue from the goat fairs and VFW. For agricultural training, key-hole gardens and SILC it is too early to be certain of long-term impacts, although the indications are positive for all three. Follow-up of all the project activities would be highly desirable to both confirm and quantify the on-going benefits.

Conclusions

Phase II of the FFP project Mitigating Food Security Shock in Eastern Chad ran from December 2012 to May 2013, a period of six months. The project and its complement Building Resiliency in Eastern Chad undertook an ambitious portfolio of activities in a very short time. The nature of the activities meant that several were going on in parallel at any given time and involved a heavy workload for

CRS Chad and SECADEV, particularly since neither organisation had previous experience of implementing several of the activities.

CRS and SECADEV should feel proud of their achievements in bringing a challenging suite of activities to a successful conclusion and feel confident in their ability to implement equally challenging projects in the future.

There is evidence of on-going chronic food insecurity among the most vulnerable households in both Assoungha and Dar Tama in spite of a good harvest in 2012 and much improved stocks of food in the communities.

Access to water remains a real challenge in both Assoungha and Dar Tama. The quantity of water available for animals is limited as is the number of watering points which are often far from villages. The quality of water for human consumption is generally poor with only about 20% of the population having access to clean water, often transported from distant wells.

Animal numbers remain well below levels that prevailed before the security problems of 2004 and subsequent years and the drought of 2011. Recovery of livestock numbers has begun and the distributions of goats through the goat fairs during this project have contributed to this. Goat fairs represent an effective mechanism to rebuild household and community assets that will be sustained beyond the life time of the project. Much remains to be done, however, to restore household assets to levels that provide adequate protection and resilience against possible future shocks.

Poor infrastructure throughout much of eastern Chad limits development. Poor roads hinder market integration and contribute to high prices for goods and services. Inadequate numbers and quality of schools and medical centres limit scope for improvement of educational and health status of the population.

Voucher for work programmes represent an option for relatively cost-effective infrastructure development. Communities have clear ideas of their priorities for such development and their efforts can be readily harnessed in positive directions.

Training programmes are well received by the population and the cascade model appears to function relatively well. Reinforcement of training that has already been provided is probably advisable. The potential to influence household well-being through providing training to women is probably very high.

Key-hole gardens have been particularly readily adopted and seem to strike a chord with communities in eastern Chad. Follow-up of this approach and its possible role in contributing to improved household nutrition is recommended.

Savings and micro-credit schemes such as SILC are widely known and well accepted by project beneficiaries and represent an opportunity for communities to invest in income generation schemes and to otherwise take charge of their own destinies.

All five major activities of the combined projects have been effectively implemented. Long-term impacts of all are likely, although this has only been demonstrated so far for goat fairs and the VFW

programme. Follow up of all five activities would be highly desirable to confirm and quantify these impacts.

Lessons learned

5. Support of local authorities and their explicit involvement in choice of activities and targeting vulnerable communities and households is highly beneficial in achieving buy-in.
6. Chronic food insecurity appears to be endemic in eastern Chad for a section of the community in spite of improved harvest in 2012.
7. Recovery of animal numbers and building of other assets that enhance the resilience of communities and individual households to withstand shock has begun but needs further support.
8. Voucher for work programmes represent an effective mechanism to harness community action to improve infrastructure and build community cohesion.

Impacts of the project

9. The level of food insecurity experienced by project beneficiaries was reduced. In particular, the number of meals enjoyed per day by both children and adults increased. The percentage of children eating only one meal per day reduced from 40 to 3 percent during the lifetime of the project and adults from 65 to 17 percent.
10. Community assets were improved with likely beneficial effects on the abilities of both communities and individuals to resist potential future shocks. Significant improvements were made to local roads through the programme of vouchers for work, improving access to villages and markets. Erosion control on community land was improved with likely beneficial effects on crop yields.
11. Rebuilding of numbers of livestock in the target communities was initiated. Over 5400 goats, the majority of them pregnant females were distributed to 4134 households through goat fairs. Average household holdings of goats increased from less than 1 to almost 3. Increased numbers of animals provide a buffer to enable households better withstand potential future shocks.
12. Over 1,000 project beneficiaries were trained in improved agricultural practices. These beneficiaries in turn passed on their knowledge to other beneficiaries and other members of their communities. The long-term benefits of this training are difficult to evaluate, but any investment in making more information available to women farmers is likely to have direct impact on the food security and nutritional well-being of their families.
13. Almost 1200 key-hole gardens were established in the project communities by the end of May 2013 and were contributing green vegetables to household meals. The methodology has caught the imagination of project beneficiaries and its widespread adoption appears to suggest that it meets a real need. The reasons for this are not entirely clear. Follow-up of the use of key-hole gardens among adopters is strongly recommended.
14. Local markets have been strengthened. All the vendors who participated in goat fairs and food markets are now fully registered as traders with local authorities and are using bank accounts to support their businesses. The 12 vendors who sold goats in the goat fairs shared business to the value of CFA 193,500,000 (approximately US$ 387,000) and added

substantially to their incomes. The 46 vendors who participated in VFW food markets shared proceeds of CFA 148,824,000 (approximately US$ 297,650) and also increased their incomes.

15. CRS Chad and SECADEV gained valuable experience in implementing activities that were new to both organizations. In particular, their experience of vouchers for work, goat fairs and key-hole gardens are likely to prove beneficial to future interventions. Both CRS Chad and SECADEV should feel proud of their achievements and move forward with increased confidence to undertake challenging new activities.
16. The profiles of USAID, CRS and SECADEV have been enhanced in eastern Chad.

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Appendix 1. Final Evaluation Questionnaire

QUESTIONNAIRE NUMÉRO

Consentement :

Bonjour, je m' appelle_____. Nous effectuons actuellement une enquête avec Catholic Relief Service et Secadev qui a pour but de nous aider à planifier et à suivre l'impact des activités entreprises dans le cAdré des projets. Vous n'êtes pas obligé d'y participer. Vous pouvez décider de ne pas répondre à certaines questions et vous pouvez mettre fin à l'interview à n'importe quel moment. Toutes les informations que vous nous donnerez resteront confidentielles. Est-ce que vous avez des questions à poser à propos de cette enquête? Est-ce que vous acceptez de participer à cette enquête ? Le répondant **accepte** d'être interrogé.

QUESTIONNAIRE D'IDENTIFICATION

Enquêteur(s): **Date :**

Nom du bénéficiaire : **Carte d'identité :**

Département : **Village :**

SECTION 1: DÉMOGRAPHIE DU MÉNAGE

Pourriez-vous m'indiquer le nom et prénom du chef de famille ?

Nom	***Prénom***	***Sexe*** Homme =1 Femme = 2	***Age***	***Veuf*** Oui = 1 Non =2	***Handicapé*** Oui = 1 Non =2	***Nombre de personnes dans le foyer***
		|__|	|__||__|	|__|	|__|	|__||__|

SECTION 2: ENQUÊTE

2. **Accès à l'eau**

	Questions	Reponses	Code	Ecrivez le code approprié dans la boîte
2.1	***Quelle est la principale source d'eau dans votre foyer?***	**2.1a Prise de l'eau publique**	**01**	|__||__|
		2.1b Puits tubulaire/puits foré avec pompe	**02**	
		2.1c Puits foré couvert	**03**	
		2.1d Source couverte	**04**	
		2.1e Eau de pluie	**05**	
		2.1f Puits creusé non couvert	**06**	
		2.1g Source non couverte	**07**	
		2.1h Bassin/Rivière/Cours d'eau	**08**	
		2.1i Camion citerne	**09**	
		2.1j Autre_____ (Spécifier)	**10**	

3. **Sécurité alimentaire**

	Questions	Code	Ecrivez le code approprié dans la boîte
3.1	***Au cours du mois passé, avez-vous eu peur que votre ménage n'ait pas assez de nourriture ?***	**Oui = 1 (sauter au 3.1a)** **Non =2 (sauter au 3.2)**	|__|
3.1a	Si oui, combien de fois est-ce arrivé dans le mois passé *?*	*1 =Rarement \(1-2 fois)* *2= Parfois (3-10 fois)* *3=Souvent (plus de 10 fois)*	|__|
3.2	***Au cours du mois passé, avez-vous ou un membre de votre ménage mangé qu'une variété limitée d'aliment ?***	**Oui = 1 (sauter au 3.2a)** **Non =2 (sauter au 3.3)**	|__|
3.2a	Si oui, combien de fois est-ce arrivé dans le mois passé *?*	*1 =Rarement (1-2 fois)* *2= Parfois (3-10 fois)* *3=Souvent (plus de 10 fois)*	|__|
3.3	***Au cours du mois passé, avez-vous réduit la quantité de nourriture dans vos repas parce qu'il n'y avait pas assez de nourriture ?***	**Oui = 1 (sauter au 3.3a)** **Non =2 (sauter au 3.4)**	|__|
3.3a	Si oui, combien de fois est-ce arrivé dans le mois passé ?	*1 =Rarement (1-2 fois)* *2= Parfois (3-10 fois)* *3=Souvent (plus de 10 fois)*	|__|
3.4	***Quel est le nombre de repas quotidien par <u>les enfants</u> pendant le mois passé ?***	1 2 3	|__|
3.5	***Quel est le nombre de repas quotidien par <u>les adultes</u> pendant le mois passé ?***	1 2 3	|__|

4. **Bétail et techniques agricoles**

	Questions	Reponses	Code	Ecrivez le code approprié dans la boîte
4.1	***Un membre de votre foyer possède-t-il du bétail ?***	Oui (sauter au 4.2) Non (sauter au 4.3)	**Oui = 1** **Non =2**	|__|
4.2	Si oui, combien ?	**4.2a Poulets ou pintades**		|__||__|
		4.2b Moutons		|__||__|
		4.2c Chèvres		|__||__|
		4.2d Bovins		|__||__|
		4.2e Chevaux		|__||__|
		4.2f Anes		|__||__|
		4.2g Autres		|__||__|
4.3	***Parmi les techniques agricoles, lesquelles pratiquez-vous ?*** (Cochez les boîtes appropriées)	**4.3a Fumure organique**		□
		4.3b Paillage		□
		4.3c Bio-insecticide		□
		4.3d Conservation des sols		□
		4.3e Bonne alimentation et santé des animaux		□
		4.3f Production de planture d'arbres		□
		4.3g Techniques post-récolte (stockage et conservation des légumes, séchage)		□
		4.3h Petit jardin chez vous		□
		4.3i Autre		□

5. **Formations agricoles**

	Questions	Reponses	Code	Ecrivez le code approprié dans la boîte
5.1	***Est-ce que vous avez participé aux formations agricoles ?***	Oui (sauter au 5.2) Non (sauter au 5.3)	Oui = 1 Non =2	|__|
5.2	***Si oui, quelles formations ?*** (Cochez les boîtes appropriées)	**5.2a Bio-insecticide**		□
		5.2b Compost		□
		5.2c Marketing		□
		5.2d Key hole		□
		5.2e Post récolte		□
		5.2f Santé animale		□
		5.3g Sensibilisation SILC		□
5.3	***Si oui, quelle formation était la plus intéressante, selon vous ?***			

6. **Appréciation du projet FFP**

	Questions	Reponses	Cochez les boîtes appropriées
6.1	***Selon vous, quelles sont les aspectes /activités les plus intéressantes du Projet FFP ?***	**Formation — bio-insecticides**	□
		Formation — compost	□
		Formation — marketing	□
		Formation — key hole	□
		Formation — post récolte	□
		Formation — santé animale	□
		VFW—réhabilitation des routes	□
		VFW -- cordons pierreux	□
		VFW -- marchés	□
		Foires aux chèvres	□
		Sensibilisation SILC	□
6.2	***Quelles sont les activités auxquelles vous avez participé ?***	**Formation — bio-insecticides**	□
		Formation — compost	□
		Formation — marketing	□
		Formation — key hole	□
		Formation — post récolte	□
		Formation — santé animale	□
		VFW—réhabilitation des routes	□
		VFW -- cordons pierreux	□
		VFW – marchés	□
		Foires aux chèvres	□
		Sensibilisation SILC	□

Notes ou commentaires :

_____

_____

_____

C'est la fin de l'enquête. Merci de votre coopération.

Signature enquêteur : **Signature superviseur :**

Appendix 2 : Focus Groupes des bénéficiaires – Guide de discussion

Date de la discussion:…… *Location:……..*

Nombre de bénéficiaires présentes…… Femmes …….. Hommes……..

1. Connaissance du projet CRS/SECADEV

1.1 Vous avez bénéficiez du projet CRS/SECADEV pendant les quatre derniers mois. Quelles ont été les activités du projet ?

Activité	Ordre	Activité	Ordre
Formation – bio-insecticides	|__|	VFW – réhabilitation de routes	|__|
Formation – compost	|__|	VFW – cordons pierreux	|__|
Formation -- marketing	|__|	VFW -- marchés	|__|
Formation – key hole	|__|	Foires aux chèvres	|__|
Formation – post récolte	|__|	Sensibilisation SILC	|__|
Formation – santé animal	|__|	Autre	|__|

Observations **:**

2. Appréciation du projet

2.1 Quelles sont les activités du projet que vous trouvez les plus intéressantes ?

Activité	Ordre	Activité	Ordre
Formation – bio-insecticides	|__|	VFW – réhabilitation de routes	|__|
Formation – compost	|__|	VFW – cordons pierreux	|__|
Formation -- marketing	|__|	VFW -- marchés	|__|
Formation – key hole	|__|	Foires aux chèvres	|__|
Formation – post récolte	|__|	Sensibilisation SILC	|__|
Formation – santé animal	|__|	Autre	|__|

Observations **:**

2.2 Pourquoi trouvez-vous ces activités intéressantes ?

Activités les plus intéressantes	Explication

Observations :

2.3 Tout le monde n'a pas participé aux toutes les activités – qu'en pensez-vous ?

2.4 Est-ce que les gens qui n'ont pas participé directement aux certaines activités ont pu bénéficier de la participation des autres ?

2.5 Est-ce que les prix dans les marchés des aliments et dans les foires des chèvres ont été justes ?

3. Suggestions ou commentaires

3.1 Avez-vous des suggestions pour améliorer la gestion de tels projets ?

Merci d'avoir partagé vos idées et avis en ce qui concerne le projet CRS/SECADEV !