Program Final Report

Submission date: 29th July 2016
Reporting period: April 2014 – April 2016

"Espoir pour les Communautés de Ouallam, Tillabéri"
ECOUT Program

Beneficiary after unconditional cash distribution at Sargane Gollé

Beneficiary with onion harvested on her own plot at Tolkoboye

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II. EXECUTIVE SUMMARY

From April 11, 2014 to February 29, 2016, Mercy Corps Niger has implemented an Emergency Food Security Program (EFSP) funded by USAID/Food for Peace entitled ECOUT[1]. This program was designed to meet the immediate needs of communities affected by recurrent food crises and build their resilience capacities to future stresses and shocks. The program targeted 55,944 of the most vulnerable individuals (7,992 households) from 56 villages in the communes of Ouallam (23 villages) and Dingazi (33 villages) in the department of Ouallam.

Regarding the first outcome, during its implementation period (April 2014 to April 2016), the program distributed to the beneficiaries, through Food For Work activities, US$ 738,689 of food purchased locally, corresponding to 1,249 metric tons of millet, 150 metric tons of cowpea and 24,579 liters of vegetable oil at the beginning of the lean seasons (June – September). In addition, following these food distributions, US$ 3,133,125 of cash were distributed to the beneficiaries with the following breakdown: US$ 963,365 of unconditional cash distributed during 3 months in 2014, US$ 1,038,440 of conditional cash distributed after fields manuring or trees planting during 2 months in 2015 and US$ 392,631 distributed in 2 rounds of post-harvest cash through Cash For Work activities (land rehabilitation, deepening or dredging of ponds, sweeping of public areas, fencing of women's gardening field schools, etc.). These distribution enabled households to fill their food needs during the leans seasons (most food insecure period of the year). Indeed, as reported by the program final evaluation, beneficiaries were less frequently experiencing hunger and therefore less likely to need to employ coping strategies to counter the issue, compared with the baseline. According to the Coping Strategy Index classification, 89% of all surveyed households reported acceptable food security compared to 51% at the baseline and the percentage of households facing acute food insecurity decreased from 23% (at the baseline) to 3% at the end of the program. Furthermore, 4,392 women from the 7,992 households received of 4,946 red goats' including 4,392 does and 554 bucks. These beneficiaries of goats benefited also from animal feed distributions. The total amount of goats and feed distributed is equivalent to US$ 459,766. With this distribution of red goats and dissemination of nutrition messages for behavior change through the 112 community outreaches' workers and the 170 lead mothers and the imam of Ouallam, the consumption of goats' milk increased from 21% (baseline) to 61% (final evaluation).

For the second outcome, through Food or Cash For Work activities, the program contributed mainly to the i) rehabilitation of 2,388 ha of pasture and agricultural lands including trees planting and fodder seeds sowing, ii) construction of 13 storage facilities, iii) preparation of women's gardening field schools. In addition, the program distributed 223.5 metric tons of improved seeds of rain fed crops (84.7 tons, 85.8 tons, 37.3 tons and 15.9 tons, respectively of millet, cowpea, peanut and sesame) and 274 kg of improved seeds of vegetable crops. The overall amount of improved seeds (rainfed crops and vegetable) distributed is US$ 440,443. At the same time, the program implemented successfully the warrantage[2] in Ouallam, starting with piloting in 5 villages (the first year) and scaling up to 11 villages. The number of beneficiaries of warrantage also increased from 386 people (90 women) to 779 people (548 women) and the amount of loans distributed increased from US$ 5,401 to US$ 15,735. In addition, thanks to smart agriculture trainings, farmers' agricultural practices improved. Indeed, as reported by the final evaluation, approximately 60% of beneficiaries use at least two sustainable agriculture practices (soil fertility, organic manure, conservation of crops production in containers and granaries) compared to 38% in the baseline. Finally, the final evaluation of the program reported strong evidence of changes made due to community based early warning systems (CBEWS) implementation in ECOUT villages. Indeed, 90% of households

[1] *Espoir pour les Communautés de Ouallam, Tillabéri* (Hope for Communities in Ouallam, Tillaberi)

2 Warrantage is a system where rather than selling their harvest immediately, farmers can use it as collateral to obtain credit from a microfinance institution (MFI). Beneficiaries store their produce in a locked warehouse with keys held by both the MFI and beneficiary group, obtain loans from the MFI for income generation activities or other needs and can sell these stocks later in the year when prices are higher.

stated that their villages are covered by the CBEWS and 62% of these households are aware of their roles and responsibilities compared to 15% from the baseline.

III. PROGRAM OVERVIEW

A significant number of the Nigerien population have been affected by severe food insecurity in the last decade, particularly in 2005, 2008, 2010 and 2012, after a combination of drought and flooding decimated crops and forage. In August 2013, the pattern of drought followed by floods repeated itself, with staple crops meeting with prolonged dry spells and early cessation of rains just as they entered a critical development period. The Ouallam department of Tillabéri region was one of the hardest hit, with 59 percent[3] of the population, the highest proportion in the country, moderately food insecure and immediately vulnerable to worsening conditions within the year. The ECOUT program's **goal is to reduce suffering, accelerate recovery and increase resilience among communities who are facing food insecurity**. It aims to assist 56,000 beneficiaries (8,000 households) in the two communes of Ouallam and Dingazi, to **meet their immediate needs and build their resilience to shocks and stresses**. The program supported agro-pastoralists affected by food insecurity to improve their nutritional status, through purchase of nutritious food during the lean season using food vouchers, as well as unconditional cash transfers. ECOUT also set out to improve access to dairy products to diversify household diets through vouchers for training activities, enabling women and other members of the household to earn a goat and animal feed. Finally, the Program aimed to increase the capacity and resources of agro-pastoralist populations to overall support resilience. The program had to focus on agricultural and pasture land rehabilitation and closing nutrition gaps through Food for Work (FFW) activities. The ECOUT Program also aimed to contribute to the recovery and increased resilience of agricultural production in Ouallam department by providing farmers with training in climate-smart techniques, and in return they received vouchers to purchase improved agricultural inputs. The beneficiaries of the program also received vouchers to purchase goats, have access to animal feed, and benefit from training in animal husbandry, health and fodder management. Lastly, the ECOUT Program worked to contribute to the strengthening of the Government of Niger's (GoN) early warning system (EWS) for food insecurity, focusing on building the capacity of community-based early warning committees to effectively identify imminent shocks and communicate up to the commune-level. Mercy Corps put a special focus on ensuring that both objectives are nutrition-sensitive, incorporating nutrition messaging throughout program activities.

Initially scheduled for a period of 18 months (April 11, 2014 - October 10, 2015), ECOUT was extended through February 29, 2016. This no cost extension enabled the program to consolidate the success of early recovery activities in order to strengthen the sustainability of program achievements.

IV. PROGRAM BENEFICIARIES' SELECTION

4.1. Geographical targeting and beneficiaries' selection

During the ECOUT Program's startup, Mercy Corps initiated in May 2014, geographical targeting and beneficiary identification and selection in Ouallam and Dingazi communes in direct collaboration with the Sub-regional Committee of Disaster Prevention of Ouallam department (CSRPC). The program interventions targeted villages with a food deficit over 50% as identified by the government-led annual vulnerability analysis conducted in November 2013.

[3] GoN (EVIAM), pp 2 and 5: The GoN's joint assessment measured vulnerability to food insecurity in terms of households stocks, household consumption scores, livestock ownership, portion of income spent on food, and the coping mechanism undertaken

By the time Mercy Corps started the geographical targeting and beneficiary identification, a number of actors had also planned for emergency assistance in the same geographical areas during the lean season. Strong coordination among actors was therefore crucial and thus a series of meetings were initiated to harmonize the whole intervention process in Ouallam to maximize the level of effort and resources among all partners. While Mercy Corps aims to build the resilience of communities through an integrated package of activities implemented during 18 months, most actors (OXFAM, CRS, Islamic Relief, and Qatar Charity) were planning to conduct emergency relief activities and provide assistance to the very poor households for only a few months over the lean season, until September 2014. Through the coordination process, Mercy Corps entered into an agreement with WFP to implement a joint effort in some of the villages (17 out of 88) where we could both provide complementary interventions, with WFP assisting all very poor households and Mercy Corps assisting all poor households. This joint effort was unfortunately not agreed upon by the Deputy Secretary General of Tillabéri region, and Mercy Corps did not intervene in the villages first targeted by WFP.

With the government's decline of the joint effort, the **ECOUT Program targeted 36 villages, 18 in Ouallam and 18 in Dingazi commune**. The HEA[4] methodology was used to identify and select **4,944 very poor and poor households** in those villages by way of their socio-economic status and household resources, in order to target the households whose livelihoods are most threatened. The ECOUT Program began to support these 4,944 households during 2014 lean season with FFW, unconditional cash transfer and seed distribution activities, while continuing to coordinate with the other actors and the local authorities to reach the ultimate target of 8,000 households.

4.2. Complementary beneficiaries' targeting

Before the end of 2014 lean season, the ECOUT Program was exploring strategies to identify and select the additional 3,056 households to reach the 8,000 households goal. It was imperative to coordinate with organizations ending their interventions and the local authorities to revisit the selection process towards the end of September 2014, before the emergency-related response activities came to an end and ensure very poor and vulnerable households were not left even more vulnerable. In accordance with this strategy, a coordination meeting between regional and local authorities, NGOs, and United Nations Organizations, was held on August 28th in Ouallam. This meeting recommended the ECOUT Program to work in 20 villages previously covered during the lean season by Catholic Relief Services (CRS): 5 villages of Ouallam and 15 villages of Dingazi. Using HEA methodology again, **3,048 very poor and poor additional households** were identified and selected in those 20 villages to benefit from the ECOUT Program activities. Therefore, the overall number of the beneficiaries of the ECOUT Program at the end was **7,992 very poor and poor households from 56 villages** (23 villages of Ouallam commune and 33 villages of Dingazi commune). These 7,992 households (55,944 people) benefitted from all the program activities.

V. PROGRAM ACTIVITIES NARRATIVE

This section describes all the activities implemented by the program and main achievements after two years. According to the program logical framework, these activities described below are related to: a) the first outcome: "agro-pastoralist populations affected by food insecurity have reduced nutrient gap" and b) the second outcome: "agro-pastoralist populations affected by food insecurity have increased capacity and resources that support resilience.

5.1. Agro-pastoralist populations affected by food insecurity have reduced nutrient gap

[4] Household Economy Approach: www.heawebsite.org

5.1.1. Distribution of nutritious food during the lean seasons through voucher system under Food For Work activities

FFW activities were implemented during the month of July 2014 and June 2015 and aimed to help beneficiaries meet their immediate food needs. These activities were monitored by the program field agents in partnership with the extension services agents. During these lean periods, each beneficiary dug three half-moons per day, corresponding to around US$2 per day of work. After each 15-day work period on site, Mercy Corps and the extension services performed a joint assessment to evaluate the rehabilitated lands before distributing food. The food assets distribution was conducted in two phases (two weeks each), at the midpoint of the FFW operation and at its end.

The quantities distributed to each household correspond to the needs of an average household of seven persons during one month to meet energy requirements: 100 kg of cereal (millet), 12 kg of legume (cowpea) and 2 liters of vegetable cooking oil. These distributions were done through vouchers, as planned by the Program. The total amount of the voucher per beneficiary per month is 32,500 XOF ($55), which allowed each beneficiary to buy the necessary amount of food. In total during the two lean seasons, 1,249 metric tons of millet, 150 metric tons of cowpea and 24,579 liters of cooking oil have been distributed after Food for Work activities were completed (Table 1). The total amount of the food items purchased locally was US$ 738,689 (Table 1). This amount was injected into the local economy because all the vendors were from Ouallam and Dingazi communes.

Table 1: Breakdown of food distributed during lean seasons and total USD in 2014 and 2015

Years	**Food distributed**			
	Millet *(metric tons)*	Cowpea *(metric tons)*	Vegetable oil *(liters)*	Total amount *(US $)*
2014	493.3	59.2	9,851	$292,009
2015	755.7	90.8	14,728	$446,680
Total	**1,249**	**150**	**24,579**	**$738,689**

5.1.2. Unconditional and conditional cash transfer to the beneficiaries

The objective of this cash is to allow beneficiaries to engage in their own activities while meeting their food needs, particularly during the rainy season. In 2014, following the FFW activities, **three months of unconditional cash transfers** (UCT) took place between August and October and each beneficiary received 32,500 XOF (US $55) per month. Thus, in 2014, a total amount of **US$ 963,365** (481,682,500 XOF) was distributed to 4,941 beneficiaries. The post distribution monitoring highlighted that 81% of this amount was dedicated to food purchase in local markets.

Based on the lessons learned from the 2014 lean season and the need to strengthen the early recovery activities started at the end of 2014 lean season (see Appendix 1), the program implemented **cash for manuring/planting during the 2015 lean season**. Indeed, during the dry season, the program trained beneficiaries on organic manure production through composting and reforestation of trees. This is how the program encourages beneficiaries to provide manure in their fields or to reforest tree species such as *Balanites, Eucalyptus, Accacia Zizifus and Bohinia*. These activities are not time consuming and contribute to the improvement of cultivated soil fertility. Thus, following the 2015 food for work activities in June, the beneficiaries received two months of cash transfers during July and August 2015 after manuring and planting trees in their fields. The total amount of **US$ 1,038,440** (519,220,000 XOF) was distributed to 7,988 beneficiaries with the same rate of 32,500 XOF ($55)/beneficiary/month.
In addition, during the extension period (starting from October 2015 to April 2016), two rounds of **post-harvest Cash For Work (CFW) activities** (land rehabilitation, deepening or dredging of ponds,

construction of levees to avoid flooding, sweeping of public areas, fencing of women's gardening schools) were implemented to increase beneficiaries' food security to the greatest extent possible. Indeed, the payment took place during the harvest, when agricultural products are widely available and prices are at their lowest, thereby increasing the value of the cash transferred to households. Each household received US$ 28 and US$ 21, respectively in November 2015 and in April 2016, which corresponds to US$ 49 of post-harvest cash per beneficiary. Thus, a total of **US$392,631** (231,652,000 XOF) post-harvest cash has been distributed through CFW activities. In total, the overall amount of US$ 3,133,125 has been distributed through Cash Transfer Activities (food and cash) to program beneficiaries in Ouallam and Dingazi (Table 2).

Table 2: Total amounts of cash distributed per activity during the program implementation

Cash transfer activity	Total amount distributed (US $)
Amount of food distributed	$738,689
Unconditional cash distributed	$963,365
Cash for manuring/ planting distributed	$1,038,440
Post-harvest cash for work distributed	$392,631
Total	**$3,133,125**

5.1.3. Distribution of goats to improve goats' milk consumption in households

5.1.3.1.Identification of goat beneficiaries

Surveys were undertaken in September 2014 in 7,782 households in order to collect household-level vulnerability data (including the number of members of the household, number of goats, sheep, cattle, number of children 0-3 years old or 3-5 years old, etc.). Women were selected to benefit from the program based on the following criteria: at least one child under 3 years old present in the household; the household has no cattle, no sheep, and one or fewer goats; the head of household is a woman. Following this process, 4,399 women were selected in October 2014 to receive goats.

5.1.3.2.Distribution of goats to beneficiaries through vouchers

Distribution of the goats took place during the first quarter of the 2015 fiscal year (October – December 2014). Prior to distribution, the animals were held in quarantine for seven days, where they were isolated to prevent contact with indigenous animals and were observed to certify the animals before transfer to the beneficiaries. The distributions were organized around 13 sites, which were accessible to beneficiaries from the 56 target villages. Each beneficiary received a voucher worth 31,000 XOF (US$ 53) redeemable for the purchase of a goat (doe). In order to ensure continued genetic quality of the goats in the ECOUT Program zone, the program also distributed vouchers for bucks (US$ 53 each) with a ratio of one buck to eight doe. The bucks are jointly owned by groups of eight women beneficiaries from the same village, based on their choice of group members, and the buck is managed in a weekly rotation between the members. Overall, 4,946 goats (doe and bucks) were distributed in the two communes of Ouallam and Dingazi (Table 3), worth a total value of US $ 259,874.58 (153,326,000 XOF).

Table 3: Goats distributed in Ouallam and Dingazi through voucher system

Commune	Number of goats (does)	Number of goats (bucks)
Ouallam	2,076	260
Dingazi	2,316	294
Total	**4,392**	**554**

5.1.3.3.Animal feed vouchers distributions to the households benefiting from red goats

As reported above, 4,946 red goats were distributed to 4,392 women (one doe per woman and one buck per eight doe). During the adaptation period, approximately 9% of the goats died during the three months following the distribution. This occurred despite the treatment of animals prior to their transfer from Maradi to Ouallam (vaccination, anti-stress). However, according to the literature and goat specialists in Niger, this rate is normal during an adaptation period. For the ECOUT program, the main cause of mortality was animal diseases. Based on the situation, the program immediately took action, in partnership with the *Service Vétérinaire Privé de Proximité* (SVPP) of Ouallam to treat sick animals (1,018 goats) and vaccinate healthy ones (3,366 goats). Consequently, animal food was distributed to the 4,536 goats corresponding to 91% of the goats still alive. Thus, each beneficiary of live goats received a kit (value 26,000 XOF, US$ 44) constituted of 100 kg of wheat bran (18,000 XOF, US$ 31) and 40 kg of cattle cake made with cotton seeds (8,000 XOF, US$ 14). The number of vouchers, the quantities and the value of animal feed distributed are presented in Table 4.

Table 4: Beneficiaries of distribution, quantities and amount of animal feed distributed

#	Number of vouchers distributed		Quantity of animal feed (tons)	Total amount (XOF)
	Doe vouchers	Buck vouchers		
Wheat bran	4,027	509	453.6	81,648,000
Cattle cake made with cotton seeds	4,027	509	181.44	36,288,000
Total	8,054	1,018	635.04	117,936,000

5.1.3.4.Training of households on animal husbandry, animal health and fodder management

- ***Capacity-building of ECOUT field agents and extension services agents***

A 3-day workshop was organized to build the technical capacities of ECOUT field agents (12) and of agents from the livestock extension service in Ouallam. This training took place prior to the implementation of livestock activities of the program. The training focused on the basics of animal rearing, milk production, breeding, infrastructure and farming equipment, and herd management. Due to the training, field agents have the skills to better support households and their communities to improve livelihoods and food security.

- ***Training of beneficiaries on basics of animal husbandry prior to goat distribution***

Prior to the distribution of the goats, meetings were organized to train beneficiaries on the basics of animal husbandry. A total of 1,220 women and 1,440 men from 24 villages were trained on the criteria for choosing a dairy goat; how to properly feed and care for their goats, including herd management: animal husbandry, animal health, fodder management and nutrition/hygiene practices around milk production.

- ***Training to make multi-nutritional blocks and treatment of straw with urea and cooking salt***

In the 56 villages, 224 community engineers (two women and two men per village) were trained on multi-nutritional block production and treatment of straw with urea and cooking salt. They trained an additional 4,519 members of their villages: 1884 men, 2271 women and 364 youth.

- ***Training on animal strategic feeding and health***

As for the previous training on multi-nutritional block-making, 220 community engineers (trainers) were trained on animal health and animal feeding strategy during the lean period. Some of the key topics of the training included: how to prepare for the lean season; cut and conservation of fodder; importance and strategy of good animal feeding during the dry season; basics of animal health; effects of good strategic feeding practices during the dry season; use of multi-nutritional block or straw treated with urea and salt. During the reporting period, these engineers trained 1,950 beneficiaries in villages' sessions: 1,157 men, 765 women and 28 youths (18 girls and 10 boys). All sessions were implemented under the supervision of the ECOUT field agents.

5.1.4. Community level nutrition messaging and behavior change

- **Elaboration of the nutrition strategy**

After a diagnosis in the two communes of Ouallam and Dingazi, a strategy was developed for the implementation of ECOUT nutrition activities. This strategy, based on C4D (communication for development) approach is built around four pillars for behavior change in hygiene and nutrition practices: i) Increase the nutritional benefits of all the activities of the program regarding agriculture, livestock, and early warning: food diversification, integration of goat's milk in the diet of the beneficiaries; ii) Explore local perceptions of malnutrition and opportunities available locally for its prevention; iii) Promote in a participatory and efficient manner the best ways to prevent malnutrition (8 essential family practices and infant and young child feeding); iv) Improve information and develop new messages on different aspects of malnutrition and test innovative measures for its prevention, in order to capitalize and promote the scaling up of this strategy.

- **Identification of community outreaches' workers and lead mothers**

A memorandum of understanding was signed between the program and the health district of Ouallam for nutrition activities implementation. Afterwards, the program planned to disseminate community-level nutrition messaging through community outreach workers and lead mothers. Their role is to support the program to implement all "nutrition" activities in their village. These community outreach workers were identified in partnership with the health district of Ouallam (a man and a woman per village, 120 people in total). For the lead mothers, 370 women were identified as role models because they represented most women in the village socio-economically, they had healthy children, and a reputation for using positive hygiene practices. Then, a second phase of identification through home visits was conducted and a questionnaire was administered to the 370 women. At the end of the process, 170 lead mothers were identified (2 or 4 persons per village according the village size) on the basis of merit.

- ***Training of community outreach workers and lead mothers***

The outreach workers and lead mothers were trained to undertake outreach activities within their communities focused on the ECOUT Program. The topics of these training sessions were as follows:

- Presentation of ECOUT Program: beneficiaries, objectives, activities and expected impact;
- Community outreach workers and lead mothers rules during the implementation of the Program;
- Training on malnutrition prevention tools including essential nutrition actions: awareness on hygiene, culinary demonstration, promotion of food diversification and use of food supplements, exclusive breastfeeding, use of health services (preventive and curative), family planning, consumption of goats' milk, food processing and conservation.

- ***Program beneficiaries trainings***

In the context of accelerating behavior change to prevent malnutrition of under five children, several awareness sessions were conducted by the community outreach workers and the lead mothers to promote the Essential Nutrition Actions (ENA). In addition to ENA, the community outreach workers and lead mothers trained back their community members on several other topics, including strategic feeding, culinary demonstrations, food stock management, fresh tomato drying (Table 5). Most of these training campaigns were performed in village assemblies with direct and indirect beneficiaries:

- ***Sensitization on essential nutrition actions:*** In order to accelerate behavior change and prevent malnutrition in children under five, the program promoted five essential nutrition practices using *pagi-volte*[5]. These included: i) Exclusive breastfeeding; ii) Techniques of pregnant and lactating women complementary feeding; iii) Complementary child feeding after the first six months; iv) Sanitation and hygiene; v) Use of health services (preventive and curative). The program held 67 awareness sessions during village assemblies, which reached 15,888 beneficiaries, including 6,046 men, 8,090 women, 898 boys and 854 girls in both Ouallam and Dingazi communes.
- ***Training on germinated millet porridge preparation enriched with peanut paste, goat milk and sugar:*** this demonstration was held to encourage the consumption of enriched millet porridge with goats' milk. A total of 513 community members (women represent 75%) attended the training. Inviting all community actors to this training also aimed to promote replication of this culinary demonstration by the beneficiaries under supervision of outreach workers in their villages with the support of ECOUT field agents.
- ***Cowpea couscous preparation:*** The objective of these demonstrations was to introduce and encourage beneficiaries to integrate the dish into the eating patterns of their households. All the ingredients used in the demonstration were locally available at low prices. After the training of trainers, beneficiaries in 39 villages were trained during demonstrations organized through villages' assemblies. In total, 39 demonstrations sessions were held and reached 2,585 people, including 888 men, 1,513 women, 109 girls and 64 boys.
- ***Low cost techniques of hygienically drying of tomatoes:*** the program arranged to conduct training on an inexpensive method of drying tomatoes using local materials. This avoided the sale of all of the beneficiary's fresh tomatoes at harvest when the price is lowest, and at the same time, to enable them to have tomatoes throughout the year. This also promoted dietary diversity for the entire year. During the training, four sessions were conducted and 428 beneficiaries attended.
- ***Sensitization on food stock management through FFW:*** To ensure that food distributed through FFW helped families improve household nutrition, the program led community meetings to sensitize the beneficiaries on the nutritional value of food received which contributed to household diet diversification: and the nutrient-rich green leaves available in the community (baobab leaves, *moringa*, etc.). In total, 834 beneficiaries including 473 men, 321 women and 77 youth (31 boys and 46 girls) attended these sessions and were sensitized at the village level.

➢ ***Nutrition caravan activities undertaken with the Imam of Ouallam to promote behavior change and adoption of positive nutrition practices***

In the primarily Muslim communities targeted by the ECOUT program, religious leaders are a powerful source of nutrition and health behavior change information. During implementation, the program conducted a nutrition caravan in partnership with the Imam of Ouallam, visiting the main villages in Ouallam and Dingazi communes (12 sites in total). The caravan had the following objectives: 1.) Using both religious and scientific arguments, the caravan sought to introduce and promote the consumption of goat's milk (due to its higher nutritional benefit); 2.) To disseminate messages about healthy eating and nutrition practices for infants and young children, as well as pregnant and lactating women; 3.) To help remove food taboos, including early weaning of breastfed children. Caravan activities, undertaken at

[5] *Pagi-volte is an education flipchart used by community outreach workers in Niger by development stakeholders. They consist essentially of messages with images and can be used to educate an illiterate public*

village meetings, reached a total of 3,126 beneficiaries (Table 5). Discussions focused on food taboos, which have a negative impact on health and nutrition outcomes, such as prohibiting girls and pregnant women from eating eggs; weaning breastfed children too early, if the mother becomes pregnant again; avoiding exclusive breastfeeding for fear of dehydration; and dispelling rumors that goat's milk causes allergies.

Table 5: Number of beneficiaries who benefitted from nutrition activities

Activities	Participants				Total
	Men	Women	Boys	Girls	
Awareness sesssions on essential nutrition actions	6,046	8,090	898	854	**15,888**
Awareness sessions on Strategic feeding	1,067	1,291	115	140	**2,613**
Culinary demonstrations	888	1,513	64	109	**2,574**
Tomatoe drying training	82	346	0	0	**428**
Food stock management	473	321	31	46	**834**
Nutrition caravan with Imam of Ouallam	1,043	1,435	220	428	**3,126**

5.1.5. Effects of program activities on household food and nutritional status

The program's final evaluation conducted by an external consortium showed the overall improvement of food security in program beneficiaries' households (see more details in the final evaluation report submitted to FFP). Indeed, the households' survey results confirmed that households were less frequently experiencing hunger and therefore less likely to need to employ coping strategies to counter the issue, compared with the baseline. The percentage of households experiencing hunger decreased substantially from the baseline to present (from 15% to 6%, Figure 1). Thirteen percent of households reported moderate to severe hunger compared to 48 percent at the baseline. In addition, according to the Coping Strategy Index classification, 89% of all surveyed households reported acceptable food security compared to 51% at the baseline. Compared to the baseline, the percentage of households facing acute food insecurity decreased from 23% (at the baseline) to 3% at the end of ECOUT (Figure 1).

In addition, women's dietary diversity score increased from the baseline, probably due to the decrease of household hunger and the improvement of goat's milk consumption (increase from 21% at baseline to 61% of households in 2016). However, the household and child dietary diversity did not improve. Given the theory that women are typically last to eat in a household, improvements in their diet should be indicative of a larger change at the household level. Thus, the data supposes a different hypothesis. Women's dietary diversity scores are calculated at slightly lower levels than for the household (e.g. for a household, average HDDS is 4-6 food groups while for women it is 3). Therefore, increases among women's scores may be indicative of a sense of empowerment participants now feel to eat as well as the rest of the family. As women are taught more about nutrition, and have greater means of providing for their family through goat management or gardening, they may feel they have equal weight in consuming the same meal as the rest of the household. Women may be eating incrementally better now, just at the same level of diversity as the rest of the household.

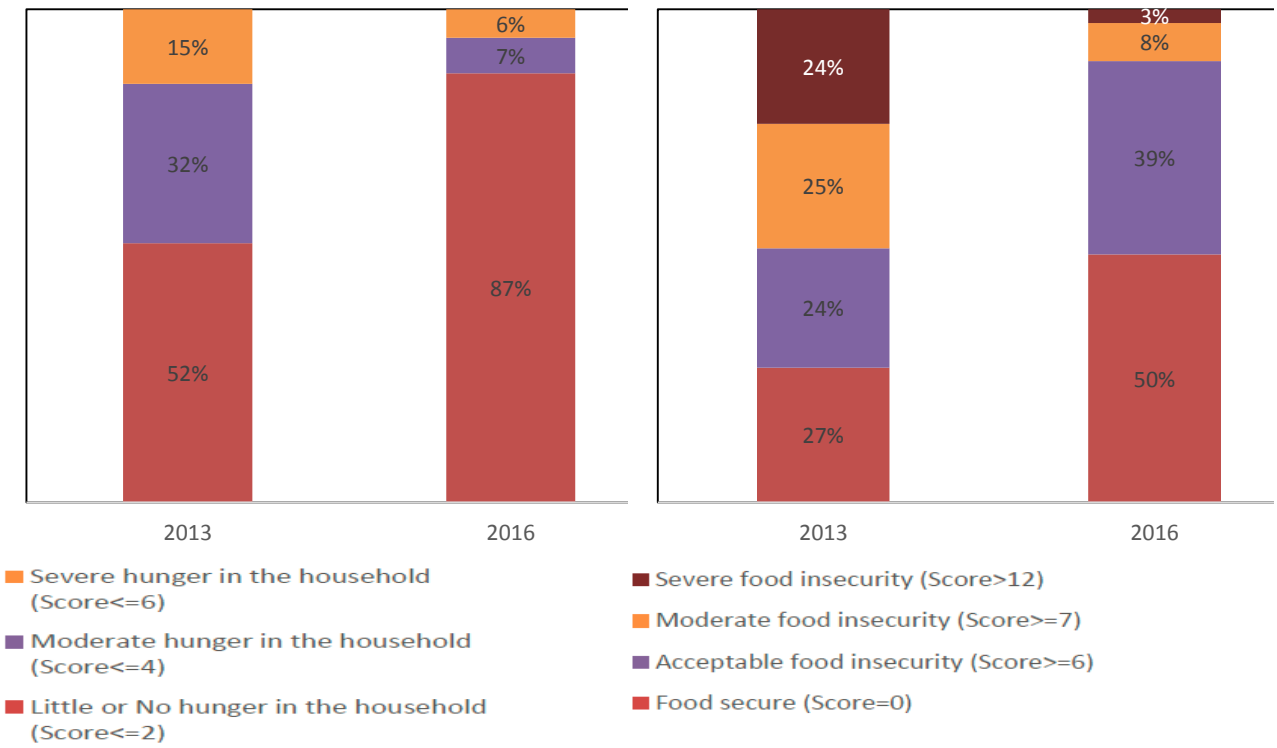


*Figure 1: Distribution of households according to **Household Hunger Index** (Left) and Percentage of households according to the **Coping Strategy Index** (Right)*

5.2. Agro-pastoralist populations affected by food insecurity have increased capacity and resources that support resilience

5.2.1. Agricultural and grazing land rehabilitation and small infrastructures realization under Food For Work/ Cash For Work activities

Land rehabilitation is carried out through FFW activities which included agricultural and pasture land rehabilitation andslowdown and collection of run-off water. FFW materials were distributed to all of the 56 villages targeted by the program, including shovels, picks, hoes, 100 meter ropes, compasses, gloves, masks, cans, meter tape measurers which enabled beneficiaries to carry out the work according to government technical standards. In each village, an assembly was held to identify the sites and activities of implementation during the FFW activities. The sites and the work to be carried out were then validated during field visits with local leaders and Ministry of Rural Engineering extension services agents. In each village, community surveyors were trained on soil rehabilitation, including knowledge about technical requirements and quality assurance. The project team and government service agents oversaw the work in each site on a weekly basis and advise beneficiaries to ensure the quality of rehabilitation.

FFW activities were implemented in June 2014, May and November 2015. In total, the main achievements of these FFW activities are as follows:

- The rehabilitation of 2,387.8 ha of pasture and agricultural lands in the 56 villages through the construction of 724,870 half-moons, corresponding to 2,319.8 ha and 630,500 zaï[6], corresponding

[6] *Zaï is one indigenous technique used in the Sahel which combines water harvesting and targeted application of organic amendments by the use of small pits dug into the hardened soil.*

to 63 ha. To accelerate soil regeneration and forage production on these rehabilitated lands, fodder seeds (*Andropogon gayanus, Pennicetum pedicellatum and Zornia glochidiata*) were sowed on 600 ha in 11 villages (Fondo Zongou, Banikane, Korou, Diep Beri, Kouffey, Fasaw, Fourmey, Kabefo, Tolkoboye Koira Tegui, Tolkoboye Fondobon and Goura Goura). In the other villages, during the Cash For Manuring/Planting, the rehabilitation of these lands was improved through the use of organic manure supply in half-moons and zaï (cultivated lands), or through reforestation with trees species: 16,000 trees of Balanites, Eucalyptus, Acacia, Ziziphus and Bohinia have been planted.

- Construction of storage facilities in villages: the storage facilities were constructed for *warrantage*: under this activity, 13 new storage facilities were built. Beneficiaries identified qualified people within the community for these facilities construction. Other beneficiaries contributed through labor during CFW days. ECOUT supported communities to finalize the warehouses with the provision of metal sheets for the roof, doors and windows.
- Preparation of collective gardening sites: As part of these activities, beneficiaries created 4,596 garden plots in 16 villages. These activities also allowed for the rehabilitation of the fences of 16 gardening sites, primarily to protect them against livestock.
- Sanitation of community spaces: Under this activity, beneficiaries dug 2,018 pits and filled them with stones for the collection of households' wastewater and swept 125 ha of public places (schools, markets, health centers, village centers, etc.). This helped to improve the living environment and instill positive hygiene practices in the community.
- Based on their early warning systems and participatory local needs assessment, beneficiaries made 1,730 clay bricks (for school fencing) and 20,000 clay bricks (for the construction of 15 houses) to benefit 15 households affected by flooding during the rainy season.
- A pond was re-dug to improve water harvesting and vegetable production during the dry season at Koubora (Ouallam commune).

5.2.2. Improved agricultural inputs distribution using vouchers

➢ ***Distribution of rain fed crop seeds via vouchers***

In conformity with its objective, the program distributed locally adapted and improved varieties of millet, cowpea, peanut and sesame seeds at the beginning of the rainy seasons (June – July). These varieties are better suited to irregular rains and have been chosen to strengthen farmers' resilience to weather-related shocks. These improved seeds were distributed through voucher system. In 2014 (June – July 2014), each beneficiary received vouchers valued at 18,500 XOF (US$ 31) for 10 kg of millet seeds and 10 kg of cowpea seeds. Based on the objectives and lessons learned in 2014[7], in 2015 the program distributed improved seeds of peanut and sesame in addition, at the beginning of the rainy season (May and June 2015). Thus, each beneficiary received vouchers valued at 18,275 XOF (US$ 31) for 5 kg of millet seeds, 5 kg of cowpea seeds, 5 kg of peanut seeds and 2 kg of sesame seeds. The overall quantity of rain fed crop seeds distributed was 223.5 metrics tons (Table 6), which corresponded to the value of US$382,435 (225,636,850 XOF).

Table 6: Quantities of rain fed crops improved seeds distributed

Commune	**Quantity of seeds (metric tons)**			
	Millet	Cowpea	Peanut	Sesame
Dingazi	36.8	38.9	18.2	7.7
Ouallam	47.9	46.9	19.1	8.2
Total	**84.7**	**85.8**	**37.3**	**15.9**

[7] Women are more interested in receiving improved seeds of peanut and sesame

- ***Distribution of vegetable seeds and tools via vouchers and support to vegetable production***

The program aimed to increase agricultural production and diversify livelihoods by supporting access to improved vegetable inputs through a voucher system. Vegetable crop production requires the presence of a water source in the village or nearby. Therefore, the program conducted a survey to identify villages in the target area that had adequate water available and where beneficiaries were already practicing or were interested in practicing vegetable gardening activities. This survey found that 27 out of the 56 villages targeted by the program (17 villages in Ouallam commune and 10 villages in Dingazi commune) had adequate water access for vegetable gardening activities. In total, 3,455 beneficiaries within the 27 villages were identified to participate in gardening activities. In December 2014, these participants received vouchers redeemable for the following inputs (Table 7):

Table 7: Quantities and values of seeds and tools distributed

Type of inputs	Number of vouchers distributed	Value of each voucher (XOF)	Total value (XOF)	Total value (US$)
Seeds*	3,425	3,300	11,302,500	$20,550
Tools^	3,067	6,000	18,402,000	$33,458
Total	6,492	9,300	29,704,500	$54,008

**Seed kits: each kit contains tomato, onion, bell pepper, carrot, cabbage, lettuce, okra and "moringa" seeds (10 grams of each), and has a value of 3,300 XOF (US$6); ^Tools: each kit comprises one hoe, one watering can and one rake, worth a total of 6,600 XOF (US$ 12)*

In 2015, given the fact that vegetable production in several villages failed in year 1 because of lack of sufficient water, the program conducted an assessment in year 2, which enabled the identification of 16 villages where water resources were sufficient. Thus, based on sufficient water availability, 16 village gardening field schools have been established in year 2 for farmer trainings. Each gardening field school (one per village) then received 30 watering cans, 30 hoes and 30 rakes as tillage equipment. Each village received also a kit of seeds: 25 grams of vegetable seeds (lettuce, tomato, onion, cabbage, carrot, pepper seeds) and 25 kg of sweet potatoes seeds for planting.

As during the first year, the program trained 1,344 beneficiaries (90% of women) on preparing plots (proper dimensions), creating nurseries for seedlings, watering, supply of organic manure, biological control of pest, the appropriate types of crops according to soil type and vegetable harvests evaluation to estimate the size of production. Technical supervision and coaching on the part of Mercy Corps field agents was done, with the support of the agricultural extension service.
Gardening activity contributed greatly to households' food security and income generation as highlighted by the ECOUT final evaluation. Indeed, one of the participants in Image Grouping[8] sessions shared how they have used the skills and benefits obtained from participating in Mercy Corps' interventions to generate income. He stated, "*I will continue gardening until I die. For example, the grain from the first harvest, I sell and I purchase a sack of manioc flour and the condiments that my household will eat for the month. Everything that I sell after that, I save the money. My children eat raw vegetables often at lunch before going back to school*".

5.2.3. Facilitating beneficiaries' access to microcredit through warrantage

In order to support farmers to protect their harvests and improve their incomes, the program worked with a local microfinance institution to establish the *warrantage* system[9]. The program undertook negotiations

[8] *Image Grouping is the methodology of evaluation used by Improve Group during the program final evaluation*
[9] *https://www.usaid.gov/news-information/frontlines/resilience-2015/niger-villages-are-proving-credit-can-beat-poverty*

with ASUSU SA[10], one of the largest microfinance institutions in Niger, for the implementation of the warrantage activities in Ouallam zone, which agreed to grant loans to program beneficiaries at preferential rates. Typically, most farmers (particularly the most vulnerable) must sell their produce immediately after harvest, when everyone else is selling and prices are lowest. Under the warrantage system, rather than selling their harvest immediately, farmers can use it as collateral to obtain credit from a microfinance institution (MFI). The beneficiaries store their produce in a locked warehouse with keys held by both the MFI and beneficiary group, obtain loans from the MFI for income generation activities or other needs and can sell these stocks later in the year when prices are higher.

Piloting warrantage initially in year one

In November 2014, the program identified five villages out of the 56 target villages that were motivated to pilot this activity: Goura Goura, Kouffey, Banikane, Korou and Samtigue. ECOUT teams sensitized community members on the warrantage process, prepared produce for warehousing, how to apply for and use credit, and conducted a market survey. At the end, 386 persons in total (including 90 women) participated in piloting warrantage activity. The quantity of agricultural products stocked was 17.4 metric tons including millet, sorghum, cowpea, peanut and groundnut. The total amount of credit disbursed (corresponding to 80% of the local market value of products stored) to the beneficiaries of the warrantage was 3,186,630 XOF ($5,401) as shown in table 8. At the beginning of the rainy season in June 2015, in coordination with ASUSU, the warehouses were opened in the five pilot villages. At this time, the reimbursement rate for loans among all participants was 100%, with all loans paid back on time.

Table 8: Number of beneficiaries, quantity of products stored and the corresponding amount of credit distributed per village in year one

Villages	Number of beneficiaries	Quantity of stored products (tons)	Amount of credit distributed per village (XOF)
Goura-Goura	55	3.07	575 130
Samtigué	52	4.45	718 000
Banikane	52	4.51	776 065
Korou	169	3.27	765 455
Kouffey	58	2.14	351 980
Total	386	17.44	3 186 630

Scaling up warrantage in year two

Based on the success in year one, the program began to expand the warrantage system in all its villages during the No Cost Extension period. Thus, at the end of September 2015, after the first outreach, 30 villages were motivated and had shown their interest in implementing the warrantage in year two. Due to logistic constraints (weak human resources of ASUSU SA office in Ouallam), only 11 villages benefited from the scaling up of warrantage. A total of 779 people (548 women and 231 men) from these 11 villages, stored 39.5 metrics tons of their agricultural products (millet, sorghum, peanut, cowpea, sesame, okra, maize) and received loans of XOF 9,283,380 (US$ 15,735) corresponding to 80% of the total value of the stored agricultural. Despite the difficulties described above, the scaling up of warrantage in Ouallam was a success. Indeed, compared to the pilot year, the number of villages and beneficiaries, the quantity of products stored, and the amount of loans distributed increased by at least 100% (Table 9). In addition, the proportion of women benefiting from warrantage increased from 23% (year one) to 70% (year two). This exceptional adoption of the warrantage model in Ouallam showed the effectiveness of this practice, which offers an opportunity for vulnerable households to store their harvest and avoid spoilage and selling when prices are at their lowest.

[10] *See more details on ASUSU SA at : http://asusu-sa.com/*

Table 9: Participation in Warrantage year 2 and the piloting year 1

Year	*Number of villages of implementation*	*Number of beneficiaries involved*	*Quantities of agricultural products stored (metric tons)*	*Amount of loans distributed (XOF)*
Year 1 (piloting)	5	386 (90 women)	17.4	3,186,630 (US $5,401)
Year 2	11	779 (548 women)	39.5	9,283,380 (US $15,735)

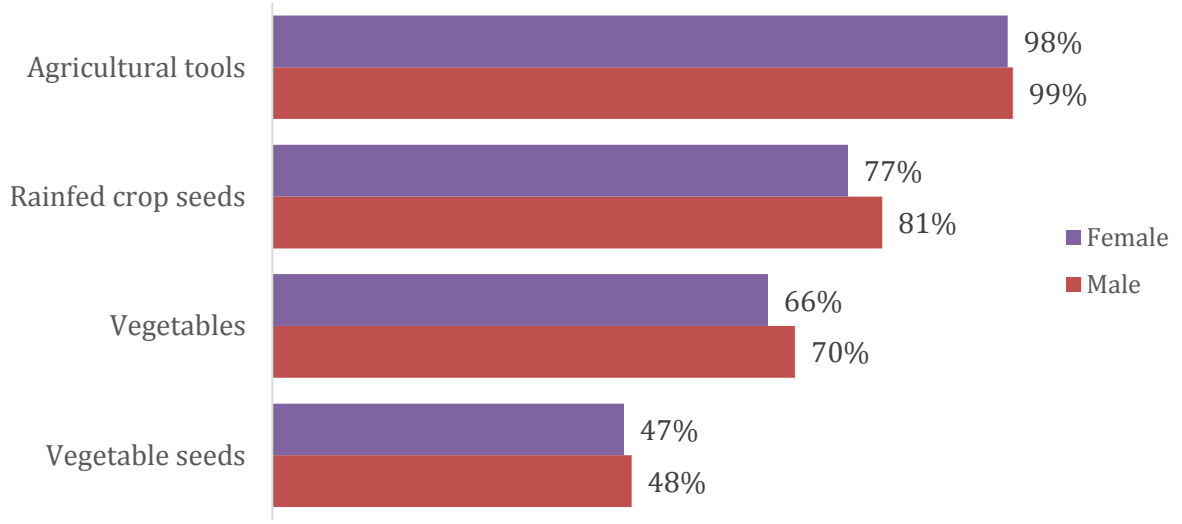
5.2.4. Trainings of households in climate smart agriculture

During the two years of implementation, the program continuously trained the beneficiaries on several topics related to smart agriculture practices with the objective to improve sustainable agricultural production:

- Training on degraded lands rehabilitation: initially, the program trained 279 "community engineers" including 3 women on: i) making of half-moons and zaï to improve run-off water harvest and increase crops/fodder production; ii) organic manure supply or trees planting to accelerate lands rehabilitation. Then, through FFW or CFW activities, these community engineers trained back 4,794 women and 3,196 men from their communities (at least one person per households).
- Training on biological control of crop diseases, including millet leaf-miner: the farmers are facing many crops diseases (for millet and vegetable) in Ouallam which contribute to the poor yields. So, through gardening field schools and village training sessions, the program trained 3,387 people (2,064 women and 1,323 men).
- Trainings on other smart agriculture techniques such as composting and compost application on the field or mulching, farmer assisted natural generation, micro dose fertilization and seeding rate of millet, cowpea, peanut and sesame crops were organized in the 56 villages by the community engineers under the supervision of the program field agents. In total, 3,716 people including 2,173 men, 1,101 women and 442 youth (287 boys and 155 girls) attended these trainings sessions.

At the end of the program, the final evaluation showed that these trainings were successful. Indeed, as reported by the final evaluation, over half of the beneficiaries reached implement protective agricultural practices such as pruning, manure fertilization, and plant renewal. Also, approximately 60% use at least two sustainable agriculture practices (soil fertility, organic manure, conservation of crops production in containers and granaries) compared to 38% in the baseline. Furthermore, 34% of households (compared to 15% in the baseline) use phyto-sanitary measures such as: chemical treatment (41.2%), mechanical treatment (21%), and heat treatment (32.7%). In addition, 86% of households are engaged in soil fertilization, 22% use organic manure, 27% use agroforestry, and 14% use compost. The proportion of households using trees on their land increased substantially from the baseline (from 8% to 38%), confirming the positive reforestation changes in participant communities. All of these changes observed are sustainable, as most of the farmers can afford and implement these changes themselves and reported that they will continue using them after the program (Figure 2).

Figure 12: Proportion of participants who report their agricultural practices will be maintained beyond ECOUT as a result of the program (From the final evaluation report)



5.2.5. Implementation of early warning activities in Ouallam department

- ***Establishment of community-based early warning system (CBEWS)***

At the beginning of the program, training courses on CBEWS were conducted with 26 individuals, including civil society, extension services, traditional leaders, local authorities, associations and NGO representatives. The content of this training included: CBEWS rules and operations, establishment of CBEWS, sensitization of community members, choice of CBEWS commission members, rules and responsibilities of the communes and Vulnerability Monitoring Observatory (VMO), etc. After the training, ECOUT staff held meetings with members of each VMO to select new CBEWS representatives in each municipality and to develop a roadmap for information and awareness sessions in the new target villages. Then, the program established 19 CBEWS, previously identified in collaboration with the VMO in each commune. In Ouallam commune, six CBEWS comprise clusters of villages, while in Dingazi, seven CBEWS were created within distinct villages due to the relative long distances between villages and six other covered clusters of villages. Each CBEWS is led by a team of 14 people chosen by their communities, based on the criteria of availability, volunteerism, motivation, education, and capacity for analysis and neutrality. The teams elected a president, a reporter and members of the following commissions: Food Security, Nutrition, Human and Animal Health, Environment and Natural Resources Management, Social Relations and Conflicts, and Special events.

- ***Training of community on community-based early warning systems (CBEWS)***

The program has continued training courses on CBEWS for civil society, extension services, traditional leaders, local authorities, associations and NGO representatives. Several sensitization sessions were held during the two years by the field agents, with the aim of raising awareness on the importance of CBEWS. Working group sessions were held in the villages to help communities to better understand the role and responsibility of CBEWS. During the implementation phase, 2,594 community members attended to these training sessions (1,168 women, 890 men, 322 boys and 214 girls).

In addition, part of the program exit strategy and following the recommendation of the regional early warning workshop organized by ECOUT (see below), the program trained 44 secretaries of all the

CBEWS established in Ouallam department during two sessions. These trainings aimed to improve the quality of reporting through monthly data collection sheets and other documents.

- ***Distribution of supply kits and equipment to CBEWS***

The 23[11] Community-based early warning systems (eight in Ouallam commune and 15 in Dingazi commune) have been provided with equipment and administrative materials to enable them to maintain and document the monthly meetings for data collection, program improvement and risk and disaster management.

- Administrative and equipment kits: pens, pencils, ream of paper, notebooks, documents briefcase, craft paper, etc. for data collection and transmission to the vulnerability monitoring observatory located at commune level and 115 mats for meetings organization;
- Rain gauges: 10 rain gauges were established within the 23 CBEWS for rainfall data collection. 65 volunteers have been trained on reading and registering the heights of rainfalls.

- ***Identification of recurrent shocks and information transmission***

The program trained CBEWS members and entire communities to effectively identify imminent shocks, respond to those shocks, and to communicate shock-related information at the commune level. To ensure a better transmission of such information, the program had also implemented a practical model employing local vendors (who attend weekly markets across many villages) as information carriers from one village to another and to the commune level (VMO-vulnerability monitoring observatory). At the end, 12 vendors were identified and established by the program and communes (5 in Ouallam and 10 in Dingazi) as information carriers. All CBEWS established are functional and over the past months, several shocks and stresses have been identified by these CBEWS and share with the VMO at commune level or with the Sub regional committee for crisis prevention and management (departmental level) such as i) massive Attack of *Rinifia infestica* (at Kouffey) and leafminer (at Sargane and Bangou Koirey) on millet crops which result to the destruction of 100% of yields, ii) flooding in 2015 in Kouffey that caused the collapse of 93 houses in banco, 33 millet fields destroyed, and a damaged village well, iii) At least 10 days of drought period observed in all the villages during the 2015 rainy season.

- ***Organization of a regional workshop on early warning system***

The ECOUT program aimed to contribute to the strengthening of the early warning system (EWS) in Ouallam department. To this end, it conducted a diagnosis that highlighted that the EWS is functional in Ouallam, but several gaps remain. To discuss these issues, the program organized a regional workshop with the participation of many stakeholders working on early warning systems in Tillabery region, including: OCHA, UNDP, World Vision, Oxfam, Karkara, government extension services, regional committee for crisis and disaster prevention, traditional leaders, local authorities and beneficiaries. This workshop was an opportunity to: i) Present the main achievements of the program and the gaps in the EWS sector in Ouallam; ii) Create synergy between stakeholders for the coordination of activities in the field, with a view to strengthening the existing EWS in the region of Tillabery; iii) Strengthen community information transmission mechanisms via local market vendors, who function as information carriers from the villages to the commune and vice versa; iv) Prepare for the exit of the program and ensure the sustainability of community based early warning systems in partnership with the communes and other actors. The workshop concluded that the EWS is functional at departmental, communal and community

[11] *Four Community Based Early Warning Systems were already established by other partners (2 CBEWS in Ouallam and 2 others in Dingazi). ECOUT supports these 4 CBEWS in addition to the 19 recently established (23 CBEWS in total)*

levels in Ouallam (meetings are done regularly and on time). However, several recommendations were made to ensure better functionality and sustainability of the EWS (examples of recommendations below):

- Improve top-down communication between the community based early warning systems (CBEWS) and departmental and communal structures, by transmitting all information on time;
- Create and operate a cluster for the different stakeholders working in the field of early warning in the department of Ouallam for the better coordination of activities;
- Suggest to the communes that they offer formal recognition and appreciation of the work of local vendors used as voluntary information carriers between CBEWS (village-level) and the Observatory of Vulnerability Monitoring (commune-level) to encourage them;
- Formalize transmission of information from the CBEWS to the Observatory via vendors by the introduction of an acknowledgment of receipt provided by the Mayor;
- Strengthen the capacity of the secretaries of the CBEWS established by the program before ECOUT's close-out.

The final evaluation of the program reported strong evidence of changes made due to CBEWS implementation and training in ECOUT villages. Indeed, 90% of households stated that their villages are covered by the CBEWS and 62% of these households are aware of their roles and responsibilities compared to 15% from the baseline. The program made strides in equipping communities with the information needed to better predict and respond to reoccurring challenges like drought and floods. For example, 83% of households said that a EWS for disasters and emergency response exists at the village level and 92% know the person to contact in case of emergency. According to the findings of the final evaluation, households reported that the delivery of CBEWS enabled:

- 61.6% of households to change their agricultural practices (changing the varieties grown, knowing the optimal period of seedlings, agricultural intensification);
- 60.5% of households to prevent and prepare for crises and disasters (income generation activities/ non-agricultural activities, reserving food supply, irrigated crops, destocking of livestock);
- 43% of households to protect or change their fields against the risks of floods (dams, site change);
- 33.3% of households to change their eating habits (optimal management of food reserves, substitution with food available);
- 49% to ensure the sustainable management of natural resources (agroforestry, soil conservation techniques, reforestation, fight against bush fires, water management, fight against invasive plants).

5.2.6. Construction of boreholes

During the extension phase, the program constructed six boreholes in the highest priority villages. These villages were identified in partnership with the communes and the government technical services in Ouallam and include Goura Goura, Saptaka Kotchiré, Kabéfo, Bereizedo, Banimate and Garbey Goumande. The construction of these boreholes aimed to improve the availability of drinkable water, which reinforces messages on essential family practices i.e. hygiene, hand washing, etc.

During the extension phase, six boreholes were dug as initially planned. After the analysis of water quality by an independent laboratory, the results showed that the borehole water in Saptaka Kotchiré was unsuitable for human consumption. To avoid the risks of indirect contamination of humans via animals and plants, it was decided not to authorize the use of water from this borehole for watering the animals and vegetables. Therefore, after discussion with the technical services and local authorities, it was decided to close this water point. The five other boreholes were equipped (pump and superstructures) for household use, as well for watering livestock and vegetable production.

Meanwhile, the program team undertook the effort to establish and train water management committees in each village. Each management committee is composed of a President, a Secretary General, a Treasurer, two Hygienists, and a Maintenance person for maintenance and small repairs of the borehole, as well as and a borehole manager for the daily management of the borehole. In addition, each community benefiting from the borehole has mobilized XOF 150,000 (US $254, voluntary contribution) to provide start-up funds for the management committee as it is set in Niger's legislation. This contribution will help to ensure the sustainability of the boreholes.

VI. CHALLENGES

The ECOUT Program experienced some challenges throughout the year; however, the team took corrective actions to respond to, or requested assistance to work through the challenges.

- Beneficiary targeting was the first big challenge faced by the program due to the high number of NGOs during the lean season, implementing emergency activities for 3-4 months. This delayed the targeting of the 8,000 households to benefit from the program. Through the strong coordination of the program team with the local authorities, WFP and the other NGOs, the program was able to reach the target in September 2014.
- In several villages, water points dried up completely on vegetable production sites so, it was not possible to complete the vegetable crop cycle. This has led to early crop harvests to avoid total destruction of the vegetables. In response, the program proposed re-digging the ponds in some villages affected to increase the water storage. In other villages, boreholes were built and will also enable people to have better access to water throughout the year.
- Another challenge that the program worked through was the illiteracy of vendors making distributions through vouchers difficult because the vendors encountered difficulties to meet food delivery deadlines or complete the financial documents for payment at the end of their services. Therefore, the program team, in coordination with logistics and finance departments trained vendors before each distribution to ensure they deliver high quality, compliant service.
- Finally, Mercy Corps' strong organizational skills and significant logistics resources were tested during the 2015 lean season (June, July 2015), when about 80,000 vouchers were distributed by the program during food and seeds distributions.

VII. LESSONS LEARNED

The main lessons learned during the implementation of the program are:

- The use of local traders for the supply of food has been very relevant: indeed, despite their illiteracy, they have a good knowledge of the area which allowed them to get food available in the villages despite the bad roads during the rainy season;
- Religious leaders are powerful resources for behavior change: in fact, the use of Ouallam Imam in a sensitization caravan has been cited by beneficiaries as being the element that has most convinced households to consume milk goat.
- Half-moons and zaï taught to the beneficiaries through Food for Work activities wherein animal manure is added to improve the quality of the soil, have been very successful. We received multiple success stories from the beneficiaries that crop yields have been the highest in areas where the zaï where made. However, even though beneficiaries are aware of the benefits of these techniques, the program still doubts whether beneficiaries will replicate this activity next year if they are not paid in return due to the work load involved in making these techniques.
- Warrantage is the key to improve the access of vulnerable households to financial services. Through this system, many poor and very poor households access to loans and were linked for the first time to the microfinance institutions in Ouallam.

- Despite all the critics around the sustainability of the Early Warning System, the program team and the community both see the importance of this unit. The results of the final evaluation showed the importance of the early warning committees and their roles in helping communities to face shocks and stresses.

VIII. APPENDIX

- Appendix 1: ECOUT voucher methodology for vouchers and cash distributions
- Appendix 2: ECOUT 2015 lean season strategy showing how lean season activities consolidating recovery activities and vice versa in the program