FINAL EVALUATION

Projet de Résilience face aux Chocs Environnementaux et Sociaux au Niger (PRESENCES-BRACED)

by

MEL Services in Action Against Hunger UK

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Authors: Nicola Giordano, Mariagni Ellina

ACRONYMS

AGRHYMET	Centre Régional d'Agrométéorologie, Hydrologie et Météorologie (Regional Centre for Agrometeorology, hydrology and meteorology)
AREN	Association pour la Redynamisation de l'Elevage au Niger (Association for the revitalization of livestock in Niger)
BRACED	Building Resilience and Adaptation to Climate Extremes and Disasters Programme
CAAP /PACA	Community Adaptation Action Plan/ Plan d'Action Communautaire d'Adaptation
CVCA	Climate Vulnerability and Capacity Analysis
CSI	Coping Strategy Index
DFID	Department for International Development – UK Aid
IDEES DUBARA	Initiative pour le Développement dans l'Equité et la Solidarité (Initiative for Development based on Equity and Solidarity)
IGA	Income Generating Activity
INRAN	Institut National de la Recherche Agronomique du Niger (National Agricultural Research Institute of Niger)
KIIs	Key Informant Interviews
KM	Knowledge Manager
(FUGPN) MOORIBEN	Fédération des Unions des Groupements Paysans du Niger
NTFP/ PFNL	Non-Timber Forest Products / Produits Forestiers Non Ligneux
PMU	Programme Management Unit
PRESENCES	Projet de Résilience face aux Chocs Environnementaux et Sociaux au Niger
PRESAO	PREvisions Saisonnières en Afrique de l'Ouest
PRESASS	Forum annuel des Prévisions Saisonnières des caractéristiques Agro-hydroclimatiques pour la zone Soudano-Sahélienne
PSP	Participatory Scenario Planning
SCAP/RU	Systèmes Communautaires d'Alerte Précoce et de Réponses en situation d'Urgence
VSLA /AVEC	Village Savings and Loan Association / Association Villageoise d'Epargne et de Crédit
WFP	World Food Programme

INDEX

Contents

EXECUTIVE SUMMARY

The *Projet de Résilience face aux Chocs Environnementaux et Sociaux au Niger* (PRESENCES) is a DFID funded project in Niger managed by CARE International UK and implemented by CARE Niger, TREE AID and the following local partners: AREN, MOREEBEN, and IDEES DUBARA, INRAN and AGRHYMET. The project is part of the programme *Building Resilience and Adaptation to Climate Extremes and Disasters* (BRACED), comprising 15 projects in the Sahel, and South- Southeast Asia. PRESENCES was implemented for 3 years, from January 2015 to December 2017 and covered 12 rural communes of the Tillabéry region. Its principal outcome was to increase adaptation, anticipation and absorption capacity of poor and vulnerable women and men against climate extremes and disasters, through three main outputs:

1. Improved relevance, access to and use of climate information services, planning and risk management for climate change adaptation and disaster risk reduction.
2. Poor and vulnerable women and men are benefitting from sustainable and climate-resilient livelihood options.
3. Governance systems and structures at local, national and regional levels support equitable, sustainable and climate-resilient management of natural resources.

The objectives of the final evaluation, conducted from January to February 2018, were to assess the results from the learning packages "credit systems for resilience" and "climate information systems for resilient decision taking"; to review and validate the Theory of Change in the aspect of Value for Money, and to identify evidence of sustainable change. The evaluation team relied on data collected through mixed method in collecting qualitative and quantitative data. It specifically relied on the use of monitoring data and key informants to identify the main trends, while employing participatory approaches and considering the CARE approaches for resilience, gender and DFID's definition for Value for Money. The present evaluation complements the wealth of learning products developed during the project, such as reporting documents, case studies, capitalisation documents, and aims to support the information pool of BRACED Knowledge Manager to inform better decisions on future phases.

The key themes of findings for this evaluation show as follow:

1. **Coping strategy Index**: An overall improved food security and reduced insecurity of assets is observed over the course of the project, with some level of PRESENCES contribution to be safely assumed

2. **The various components of KPI4 indicator to measure resilience** have shown a mix of upwards and downwards trends, which may be affected by seasonality and the evolution of institutional and contextual forces. The evidence clearly indicates that assets, savings systems and livelihood practices, new livelihood practices for food security, governance structures and access to natural resources improved considerably while climate information and use of improved seeds showed less change than expected and the management of conflict linked to natural resources worsened (possibly due to the deterioration of security in several intervention areas).

3. **Climate Information Learning package:** People are more likely to follow climate information in 2017 than 2015. The pertinence of climate information also increased, and a relatively greater percentage perceived it as very relevant. Most of the information was used to choose the adequate type of crop, which also informed additional livelihood strategies meant to secure productive goods. The project mainly focused on the link between SCAP/RU within communities and OSV at the Commune level, which strengthened thanks to revitalised flow of information from communities to Communes particularly by introducing IT-enabled solutions. Radio channels were found to be the most used source of information, followed by community groups and meetings; albeit the sustainability of the information sharing modalities is not ensured due to lack of funding of sustaining radio emissions.

4. **Credit Systems Learning package:** VSLAs, Warrantage and Cereal Banks are the main credit systems supported by PRESENCES. Where these were reinforced by the project, target communities were more eager to borrow and re-invest in increased production. At the household level an increase of 60% of savings amounts was observed in targeted areas, and it is likely that credit systems provided an avenue to accelerate this growth of income. The effect of credit systems also showed a positive correlation with food security trends, under the form of the number of months that a household can secure food-stock. PRESENCES mitigated the risk of unreliable credit mechanisms by supporting the governance structures of cereal banks and warrantage committees. Their better functioning resulted to greater access from selected communities and to greater financial returns and propensity to invest or borrow, as well as greater ability to assert their personal interest when responding to chronic stressors (affirmed by the increase of some key resilience indicators). Lastly, PHASE cash-for-work presented a positive correlation with general trends of credit amounts reported in selected areas but given its short-term nature it did not sustain significant livelihood transformation.

5. **Value for Money**: Based on spending till Q3 in 2017, an assessment through the '4Es' (Economy, Efficiency, Effectiveness and Equity) was conducted. The ratio of direct versus indirect costs is 3.08:1 (for every £3 spent on direct implementation, 1£ is spent on indirect costs). The value is moderately high but is justified by the geographic spread of the intervention, which required additional resources to ensure intensive outreach in area of difficult access and with limited transportation facilities. The average cost of the project is £48.81 per reached individual. Based on numerical metrics and results evidence, the effectiveness of the project and its social return can be interpreted in many ways, but overall it shows remarkable positive change in savings, food security and coping strategies. In terms of equity, the project achieved a balance between men and women in terms of outreach figures, although gaps remain in terms of other forms or vulnerabilities.

Based on direct interface with several project's stakeholders along with secondary and primary sources of information, the following recommendations were formed:

Project Design

To make sure the project ToC reflects the scale of activities, the key learnings in this area are to:

1) Invest adequate resources and time to review the theory of change over the implementation cycle
2) Budget costing for exclusive monitoring staff, to ensure separation between implementation and monitoring activities.
3) Link the theory of change to a problem tree when adjusting the geographical boundaries of an intervention.
    a. In-depth context analysis to identify the root causes of a measurable problem or set of problems can be a useful source of evidence to track all project-related assumptions about external contextual forces.
4) Ensure the recruitment of human resources from an international pool for the PMU in-country to procure sufficient skill sets required to manage complex reporting requirements.

Project Implementation

The set of recommendations to scale up the intervention model should rely on the following actions:

1) Measure the sustainability of PRESENCES through an ex-post impact study to verify the sustainability of trends in savings and food security, outside of seasonality factors.
2) Structure a governance protocol that provides direct implementing partner support in adjusting financial and MEAL systems to align with agreed quality standards.
3) Formalise review points of monitoring evidence with the support of cost-recovered data analytics and information management specialists in-country.
4) Redefine an advocacy pathway that can link Communes to regional and national level platforms to secure enough exposure on resilient livelihood models to be facilitated through policy changes and budgetary decisions.

5) Engage in closer coordination with other stakeholders that implemented resilience-focused projects by sharing evidence on changes in adaptation, absorption and anticipation of climate shocks.

Monitoring, Evaluation, Learning and Accountability

The following recommendations should be considered the next time a MEAL framework is designed for similar projects:

6) Cost for time staff only meant for monitoring instead of including the monitoring function into the role of implementation.
7) Ensure all monitoring respondents are uniquely identified to best calculate how longitudinal the dataset is.
8) Improve the time management of monitoring data collection to increase its consistency

1. INTRODUCTION

1.1. Overview of BRACED-PRESENCES project

The "Projet de Résilience face aux Chocs Environnementaux et Sociaux au Niger" (PRESENCES) is a DFID funded project in Niger, as part of the wider programme "Building Resilience and Adaptation to Climate Extremes and Disasters" (BRACED). The programme covers a 3-year period; PRESENCES started in January 2015 and ended in December 2017 and was implemented in 12 rural communes of the Tillabéry region.[1]

The project's main outcome and respective outputs areas as per the Logframe are as follows:

- **Outcome**: Poor and vulnerable women and men in targeted communes are better able to adapt, anticipate and absorb the consequences of climate extremes and disasters.
- **Output 1**: Improved relevance, access to and use of climate information services, planning and risk management for climate change adaptation and disaster risk reduction.
- **Output 2**: Poor and vulnerable women and men are benefitting from sustainable and climate-resilient livelihood options.
- **Output 3**: Governance systems and structures at local, national and regional levels support equitable, sustainable and climate-resilient management of natural resources.

The outcome is built on the **contextual assumptions** that:

1. There is a low likelihood of 2 successive years of serious draught in the area or flood that require regional-scale humanitarian intervention and neutralizes community efforts to build resilience and
2. The transfer of skills and resources to municipalities will be completed in accordance to the terms of the regulatory framework for decentralization.

PRESENCES was managed by CARE International UK and implemented by CARE Niger, TREE AID and the following NGOs: AREN, MOREEBEN,[2] and IDEES DUBARA, as well as INRAN and AGRHYMET. The project worked in close collaboration with governmental bodies such as the Direction National de la Météorologie (National Meteorology Department), specifically for the sharing climate information (see Learning Package 1).

1.2. Definition of resilience in BRACED and CARE

For CARE, increasing resilience is central to the organisation's work (statement in 2016 "Increasing Resilience Guidance Note"). CARE understands resilience in terms of managing risk and dealing with shocks, stresses and uncertainties that influence people's abilities to improve their livelihoods and carry out their rights. CARE's resilience approach is underpinned by:

- A forward-looking analysis that looks at the risks and uncertainties to inform decision-making and planning.
- Enabling flexible responses, following the drastically changing environment and risks faced by communities.
- Encouraging innovation through learning, adapting to new risks and using new knowledge.

Increasing resilience is an ongoing process; it can be achieved through increased capacities and assets to deal with various shocks, stresses and uncertainty, as well as reduced drivers of risks and enabling environments.

[1] The communes are: Anzourou, Ayerou, Dargol, Dessa, Goroual, Gothèye, Hamdallaye, Inates, Makalondi, Mehana, Ouro Gueledjo and Torodi. In some of the communities, implementation faced challenges due to insecurity, particular in the areas closer to the border with Mali and Burkina Faso.

[2] La Fédération des Unions des Groupements Paysans du Niger (The Niger Federation of Farmers' Unions).

Increased capacities are specifically aiming to help people to better *Anticipate risks*, *absorb shocks*, *adapt to evolving conditions* and *transform* through systemic change. The first three capacities, are also known as anticipatory, absorptive and adaptive, or the '3As' for resilience and are also the supporting pillars for the BRACED framework of resilience. Within BRACED, resilience is understood as the 'ability to anticipate, avoid, plan for, cope with, recover from and adapt to (climate related shocks and stresses (DFID, 2014, Methodology for reporting against the KPI4)[3]. As concept, resilience can apply to individuals, households, communities, systems, but specifically in the BRACED context and results measurement (through the KPI4 indicator), change is measured for individuals. In other words, BRACED outcome.

1.3. PRESENCES Theory of Change

It is critical to consider PRESENCES Theory of Change to better address the key evaluation questions and their expected relationships with evidence from the final evaluation. To begin with, the problem to be addressed lies on the following issue: "The livelihoods of women and men in Niger are vulnerable to climate variability and extremes, through three causes: 1) high exposure; 2) high sensitivity of their livelihoods and asset base, and 3) low adaptive capacity at the individual and institutional level.

To achieve scale, the priorities across all levels were set through processes such as the Climate Vulnerability and Capacity Analysis (CVCA), Participatory Scenario Planning (PSP), and Community Adaptation Action Plan (CAAP), and through linkages with Commune level officials, technical and private sector actors and other governance structures. The combined approach included the consideration of the following expectations:

- Equitable community-based interventions to build resilience within households and communities by empowering women and marginalised groups through knowledge for decision-making, and increasing buffers against shocks;
- Capacity of informal and formal institutions to support communities through forward-looking decision-making, and equitable and inclusive solutions;
- Reinforcing policy environment and multi-level political implication to enable climate change adaptation for women and men and to build resilience at all levels.

This approach was described as a *knowledge-practice-behaviour* continuum, and PRESENCES theory design is based on this sequence of changes.

Knowledge

It relates to how PRESENCES contributed to women and men accessing knowledge, capacity, and stronger institutions to enable better livelihood systems in spite of climate risks, through three output areas:

- Output 1: Relevance, access to, and use of climate information services, planning and risk management for Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR);
- Output 2: Benefits from sustainable and climate-resilient livelihoods options;
- Output 3: Governance systems and structures at local, national, and regional levels support equitable, sustainable, and climate-resilient management of natural resources.

Practice

The key assumption to explain how these outputs can translate into intermediary outcomes can be investigated by tracking how PRESENCES participants acted on the knowledge over a period of time. By all actors adopting resilience-building strategies these sequences of changes were expected to be achieved and measured. Indicators to track these changes generated data to assess if individuals met/exceeded basic needs and if a community resulted being able to mitigate its losses from unavoidable shocks and stressors now and in the future. The final evaluation provides some evidence about a growing trend of resilient rural practices internalised and acted by communities.

[3] http://www.garama.co.uk/wp-content/uploads/2017/06/ICF-KPI4-methodology-Oct2014.pdf

Behaviour

The greater combined effect of knowledge and acquired practices was projected to result in constant livelihood improvements over-time and adaptations to reduce sensitivity of livelihood and systemic exposures to the extremes of climate change. The project's intended impact is composed by a reduction of 1) the magnitude of livelihood losses, and 2) the frequency of asset bases disruption by climate shocks and stressors. This was envisioned to be a consequence of improved coping strategies, community-level actions, governance mechanisms and support to capacity of local and national stakeholders through trainings and engagements with communities.

2. OBJECTIVES OF THE FINAL EVALUATION

2.1. Key objectives

The objectives agreed with CARE and BRACED Knowledge Manager for this evaluation are to:

1. **Address the priority learning packages "credit systems for resilience" and "climate information systems for resilient decision taking":** These areas cover PSPs, CVCAs, CAAPs, VSLAs, Warrantage and Cereal Banks. The list relates to activities forming packages for credit and information system strengthening during chronic climate shocks.
2. **Review and validate the theory of change from a value for money perspective:** The final evaluation considered PRESENCES theory of change when explaining results, including Value for Money indicators. The evaluation assessed and presented any significant trend of change in knowledge, practices and behaviours from the available sources of monitoring and evaluation evidence.
3. **Identify evidence of sustainable change:** The study also identified along the theory of change and resilience continuums, which strands of evidence indicated some early signs of sustained trends derived from a consolidation of climate-resilience practices.

2.1.1. Learning areas

The learning areas proposed for this evaluation are in line with the expectations of BRACED Knowledge Manager to focus on packages of activities to learn about how results happened through adequate triangulation of different sets of evidence collected over-time. The evaluation team adopted such approach to further investigate the following areas and cross-cutting themes,

Table 1: Learning Areas

Area 1: Credit systems for resilience
a. What types of credit systems were employed in PRESENCES? b. Did people see the PHASE cash-for-work intervention as a form of credit system? c. What leads to credit system functioning and how do they support the most marginalised beyond the intervention in terms of income generation? d. What are the user investment decisions taken considering market trends and climate shocks? e. Are people more resilient because they are accessing credit to diversify their livelihood options or to remain more food-secured? f. What risks were encountered that could reduce resilience-building through this system?
Area 2: Climate information systems for resilient decision taking
a. What kind of information users got in an understandable fashion and used it to take which livelihood-related decisions based on type of recipient? b. Did users receive information in time to take decisions? c. What user-focussed channels have been used to mainstreamed relevant information by the government and what is the potential for can the EWG/SCAP-RU system to be further strengthened? d. Were certain communication channels more important than others and did they change over the course of the project?

e. What limitations were encountered in the climate information systems that could reduce the impact on resilience?
Cross-cutting themes: Gender, Inclusive Governance and Resilience

2.2. Process-related objectives

Along with the learning questions, this evaluation provides some tentative estimation for economy, efficiency, effectiveness and equity. The measurement of the 4Es approach looks both at the results achieved in the project and whether VfM-friendly systems and processes are in place at the management and organisational level. BRACED had demanding reporting requirements which ensured a constant financial and narrative tracking.

By intersecting this information with monitoring and evaluation evidence, the evaluation team generated some initial benchmarks in the analysis section based on:

1. Financial expenditures and their disaggregation per output area
2. Outreach figures along all the KPI1 indicator
3. Significance of outcome change in KPI4 and CSI (impact indicator)

The quantitative estimates of the 4Es (Economy, Efficiency, Effectiveness and Equity) indicators are indicative rather than conclusive, unless further triangulation confirms a certain trend of evidence. The series of activities that can be traced to a trend of change is the focus to understand process-objectives, which attempt to measure to what extent we can attribute a statistically measurable change of knowledge, practice and behaviours with activities implemented in Niger. The analysis section provides global estimates for selected indicators that can be used as benchmark across other resilience projects in Niger and similar contexts.

3. CONTEXT AND SYSTEM ANALYSIS

3.1. Contextual forces identified at baseline and their trends

One of the aspects that the evaluation is intended to examine relates to contextual developments since PRESENCES began. The information is not directly sought through the evaluation tools, but it is expected to emerge through the analysis of secondary and primary qualitative data. In brief, there is no significant contextual variance; the main context-related issues areas are broken down in the following table for ease of reference:

Table 2: PRESENCES Context Development

Issue	Baseline	End of project
Improved seeds	From the baseline study, the availability of improved seed[s] was considered as a bottleneck in the project intervention area	Some reported issues from key informants remain in terms of consistency in providing improved seeds on time to the communes
Climate conditions	• **Rainfall/precipitation** in the Tillabéri region: precipitation is characterised by high variability from one year to the next. Since 2010, there has been a shortening of the rainy season's duration with a tendency for the season to start late. • **Drought**: 'Drought periods (more than 10 days) have not been recorded in most communes in the Tillabéri region in the past	Erratic precipitation has still been an issue, as well as challenges to predict the start of the rainy season. In line with the project's main assumptions and findings from the midterm evaluation, there have not been two consecutive

	decade (2003-2012), and there have not been two successive years of serious deficits in the area since the 1980s.' • **Floods**: 'The Tillabéri region is one of the regions in Niger most affected by floods.' Risk is more critical for the communes that are close to the river banks.	years of drought in the project intervention area (but a drought in project intervention area in 2015). (sources: KIIs; Mid-Term Evaluation report)
Government/ administrative/ political environment	In the 1990s Niger went through a move of decentralisation of government powers which was followed by a decentralisation law and a process to transfer resources and skills to communes. According to the baseline report, the transfer of skills was not followed by the equal transfer of financial and therefore human resources.	No major change in the decentralisation policy but capacity levels and human resources differ across communes (source: KIIs in Torodi, Hamdallaye, Gueladio)
Political situation: elections and enabling/ disabling environment	Development stakeholders should have the assurance of continuity through the execution of commune development plans, PDC which are not linked to the candidate, but represent continuity.	No major threat of political instability during project duration even despite the elections which took place in 2016.
Planning Processes	Community Development Plans (PDC) are developed through a participatory process and consider gender and the need to support vulnerable groups. The guide for the development of the PDCs has been revised to include inter-communality and to take climate change into account.	BRACED has supported the integration of PACA in the PDC (source: KIIs, PRESENCES Mid-Term Evaluation).
Dissemination of seasonal forecasts	Forecast information broadcasts are not public but appear in newspapers and newsletters of the National Network of the Chambers of Agriculture of Niger (RECA) and the West Africa Seasonal Forecast Initiative (PRESAO). The most accessible broadcasts to the largest number of people cover rainfall records, through radio channels. There is always a lack of sharing by government agencies (meteorology) through the information channels and climate predictions are increasingly given at population level through programmes responsible for change issues and climate variability	The process of diffusing forecast information from regional and national level to commune level is still not straightforward: the seasonal forecast information is first known by PRESASS and National Meteorology Service (DMN), and before the relevant meetings and permissions by Ministers council to publish are in place, the information does not reach the Communes. (source: *PRESENCES innovations Case study*;[4] KIIs).
Security situation	Excluding any changes in the modus operandi of Boko Haram or other jihadist groupings, the security situation is under control and will	The security situation has worsened since the project started, and it affected project implementation in areas such as

[4] Hama H.H. et Issoufou O.K: "Les services météo s'allient aux agro-pasteurs pour le partage des prévisions saisonnières et conseils agricoles au Niger".

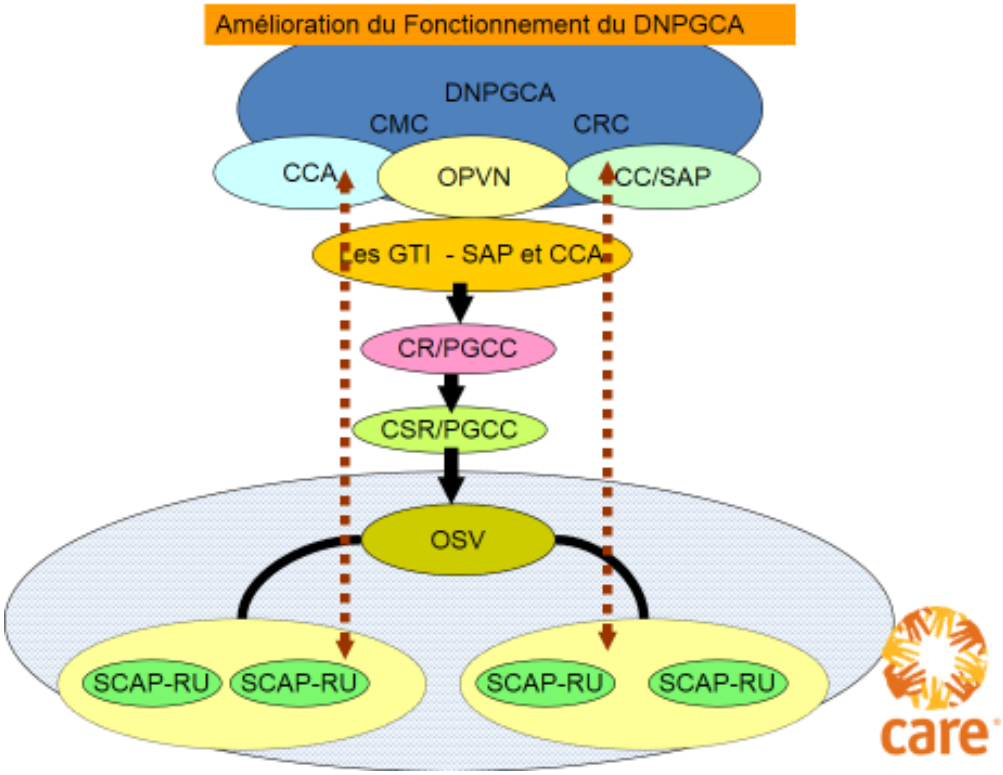
	probably have little or no impact on the implementation of the PRESENCES project.	Inates, Gorouol, Ayorou, Dessa, where less activities took place. The final evaluation itself could not conduct any data collection to these project areas.

3.2. Climate information systems: SCAP/RU

Since 2012, the coordination of disaster prevention and management in Niger falls under the National Direction of Prevention and Management of Food Crises/ Dispositif National de Prévention et de Gestion des Crises Alimentaires (DNPGCA). However, the main functions of the DNPGCA do not reach the communcal level. To re-align the provision of services, the regulatory framework of Niger has created a decentralised communication channel through which the climate information and responses to climate shocks are provided, namely the Systèmes Communautaires d'Alerte Précoce et de Réponses en situation d'Urgence (SCAP/RU).

The SCAP/RU consist of 12-member committees at the community level that collect and transmit data to the Observatoire de Suivi de la Vulnérabilité (OSV) in relation to indicators across 5 vulnerability sectors: climate, food and feed, health and nutrition, social relations, environment and Resources. The OSV is chaired by the Mayor and is composed by key Municipal Technical Services (agriculture, livestock, environment), municipal councillors, local civil society and traditional authorities.

Map 1: SCAP/RU graphical representation of information flow



The OSV is a framework and a system of sharing and managing information that aims to contribute to improving information on the causes of vulnerability in nutrition and food security, improving systems of local disaster management, and to increasing local accountability amongst community actors, NGO and government. It is formed on a participatory and consensual basis and therefore depends significantly on the representation and collaboration of different communal actors.

The information sharing can work downwards as much as upwards, meaning from the communities to higher governance levels of early warning systems. Radio broadcasting is a principal means of providing and getting up-to-date information which can then help agro-pastoralists decide the most appropriate seed variety and the right timing to plant in order to reduce harvest losses.

PRESENCES focused especially on the link between SCAP-RU and OSV by building capacities of Technical Services to track a set of vulnerability indicators along with digitising the data collection. The higher levels of governance of climate information were not targeted as much, especially given the limited mandate and authority to influence and strengthen the overall information flow.

3.3. Financial inclusion and resilience in PRESENCES

A. Cereal Banks / Banques Céréalières (BC)

Cereal Banks are a kind of village-level granary in which goods are reserved; the creation of cereal and seed stock increases its availability and accessibility in reasonable prices even in periods of shortage. Cereal banks play a crucial role in reducing food insecurity as long as the stock is renewed and maintained in order to accommodate the needs of vulnerable groups affected by climate change. BRACED-PRESENCES, following the CVCA processes in which the need was expressed, took on the reinforcement of the Cereal Banks that pre-existed in the intervention areas.

B. Warrantage

The Warrantage is a produce saving and credit approach used and implemented by CARE in Niger since the late 90's (inspired by WFP) and it consists of offering credit to farmers when handing in a part of their produce, which is saved in a designated storehouse. This usually leads to minimising complete sell-off of the harvest and investing the money lent on Income Generating Activities (IGAs). The Warrantage is used on an individual or household level (rather than community) and allows building a safety capital through saving seeds instead of consuming them and at the same time redirecting the harvest to the market at times when it is most profitable. In cases where surplus of harvest and seeds is not available due to a 'bad' year, the Warrantage is also possible with Non-Timber Forest Products (NTFP) such as baobab leaves, 'doum' palm fruits, etc. which allows even more vulnerable groups to access this service.

C. Village Savings and Loans Associations (VSLAs)

VSLAs are also a system implemented by CARE International in Niger since 1991. In the context of BRACED-PRESENCES, it was implemented by the project partner IDEES Dubara under the approach of "Mata Masu Dubara" (MMD/ Women on The Move).[5] It is an approach that aims to improve the financial security of rural women who participate as volunteers in village groups and jointly develop and manage savings. The primary purpose of VSLAs is to provide simple savings and loan services to those who do not have access to formal financial services and institutions (Pettengell, 2016).

Normally the groups comprise 15-30 members, who meet weekly or regularly and deposit a pre-decided amount of savings by purchasing shares. VSLAs generally operate with simple methods of accounting and establish guiding principles around loan terms, interest rates, the maximum number of shares and frequency of meetings, which may vary slightly from group to group. PRESENCES has reignited the functions of the groups in the intervention area by providing trainings and supporting the groups to operate optimally and did so by using a light form of the MMD guiding principles, with an average time of process set up of 6-8 months (BRACED capitalisation document, 2017).

[5] Details available at: https://www.microfinancegateway.org/sites/default/files/mfg-en-toolkit-mata-masu-dubara-womens-savings-and-credit-groups-training-guide-1998_0.pdf

4. LINK BETWEEN FINAL EVALUATION AND MONITORING

4.1. Monitoring Framework

The monitoring framework underpinning the PRESENCES project offers a great wealth of qualitative and quantitative data across various indicators. Therefore, the evaluation team leveraged extensively on monitoring information to explain the link between packages of activities and trends of results across Communes in Niger.

Monitoring evidence was of sufficient quality as adapted from patterns of open-ended responses. The initial qualitative nature of the surveys evolved into a more structured and quantifiable one that permitted the evaluation team to generalise trends and observe patterns. Most analysis was derived from over 5000 household interviews over the span of 3 years, more details on the sample structure reflecting the target population distribution is in Table 1 of Annex 1.

4.2. Impact-level change

Given accessible evidence on the Coping Strategy Index, PRESENCES impact indicator, this evaluation also offers further data analysis on its trend. The sample structure seemed to be longitudinal enough to infer tentative claims of contribution of PRESENCES towards its expected impact.

Table 3: Baseline and Endline Sample for Coping Strategy Index (CSI)

Respondents per Commune			Baseline Total			Endline Total	Grand Total
CSI Index	M	F		M	F		
Anzourou	7	26	33	9	24	33	66
Ayorou	15	15	30				30
Dargol	79	44	123	39	27	66	189
Dessa	40	50	90	40	20	60	150
Gotheye	72	29	101	48	29	77	178
Gueladio	27	3	30	22	9	31	61
Hamdallaye	59	3	62	46	7	53	115
Inates	23	13	36				36
Makalondi	40	19	59	27	26	53	112
Mehenna	21	10	31	5	5	10	41
Torodi	117	34	151	90	55	145	296
Grand Total	**500**	**246**	**746**	**326**	**202**	**550**	**1296**

5. FINAL EVALUATION METHODOLOGY

5.1. Methodology

To offer a more triangulated analysis of how change happened in the project, a large set of types of evidence was selected. The following approaches were adopted:

- **Mixed methods:** to collect data and respond to the questions in the evaluation matrix. Emphasis was given on the integration of monitoring evidence with baseline and final evaluation data to track the evolution of coping strategies and resilience.
- **Participatory:** to validate and qualify the key findings or trends with community leaders and/or key informants through a variety of participatory exercises. The additional data collection in the field reinforced or offered new themes emerging out of monitoring data.
- **Multi-stakeholder:** to make sure all key actors (international and local implementing partners, KM/FM reps, institutions) in the project cycle got a chance to share information and to react to the

evaluation findings. A validation workshop with all implementing partners and additional round of interviews with government officials and key staff were also conducted in January 2018.

- **CARE approach:** to consider key analytical hues and conceptual frameworks linked to gender, resilience and Value for Money. The Value for Money approach is intended as per DFID definition: economy, efficiency, effectiveness and equity.
- **Visually oriented:** to render data accessible and to explain trends of single or multiple variables. Given the limitations of evidence, a descriptive approach in statistical analysis seemed to be more appropriate. A few inferential models are also provided in visual form to capture initial elements of causality between variables.

5.2. Sources and use of information

Thanks to a large variety of sources of information, some of the trends are proven from a wide array of datasets and reports. The ones considered for this evaluation were:

- **Monitoring evidence**: BRACED-PRESENCES offered an extensive set of digitally-collected monitoring evidence, project trackers and reports to outline key trends of change. The 4 monitoring tools were:
  1. Individual household monitoring
  2. Community monitoring
  3. Institutional monitoring
  4. VSLA longitudinal monitoring
- **Validation workshop**: Gathering information from all implementing partners for this evaluation was necessary to validate the direction of change and its segmentation across different needs linked to the learning packages: credit and climate information systems
- **Coping Strategy Index**: The impact indicator represented by the Coping Strategy Index (CSI) was collected both at baseline and close to the end of project's implementation. Since seasonality created a bias in its comparability, this study also includes qualitative triangulation through 36 focus group discussions to better explain the attribution of CSI rate of change.
- **Key informants' interviews**: The inclusion of resilience activities into institutional actions was appraised by analysing monitoring evidence from government stakeholders in target areas and additional ones. Semi-structured interviews were conducted with 16 participants (7 PRESENCES/CARE staff and 9 local authority or technical services representatives). The full list of interviewees can be found in Annex 4.

5.3. Analytical approach

The combination of descriptive, trend and inferential analysis is used to build a comprehensive picture of how PRESENCES is affecting the lives of project recipients. Figures and graphs are used to support and strengthen our understanding of the effect PRESENCES is having on short- and medium-term coping. A summary of the figures and graphs used to support this analysis is provided below.

Type of Visual	Types of Analysis Conducted
Bar Graphs/ Histograms	Shows the number of times that an event occurs, either as a raw number (frequency count) or as a percentage. The horizontal (x) axis represents the variable being measured, and the vertical (y) axis shows the number or percentage of occurrences for each value in the x axis.
Trends analysis	Shows the trend over time of a variable. Trends can be plotted as lines or as box-plots as well and they either follow a quarterly or yearly frequency.
Box Plots	Shows the spread of data for a variable. The line in the colourful box represents the median (or midpoint) of the data. The bottom and top of the coloured box represent the interquartile range (the 25 and 75 percentiles respectively). The lines at either side of the coloured box end at the lowest and highest values for that variable. Outliers (values which are viewed as unusual) are represented by dots.

Word Processing	The proposed visualisation of qualitative data provides a global view of the topics (and how they differ from each other), while at the same time allowing for a deep inspection of the terms most highly associated with each individual topic.
Regression Table	The variable being explored (response or dependent variable) is displayed in the top line as the 'Dep. Variable'. The other variables in the model (explanatory or independent variables) are listed on the bottom left of the table. The column titled 'P>[z]' displays the *p* value, which indicates whether or not the relationship between the explanatory and response variable is significant. A p value of less than 0.05 is said to be statistically significant. Finally, the column titled 'coef' indicates whether there is a positive or negative relationship between the explanatory and response variable. When introducing each sub-section for each line of inquiry, each explanatory variable with a statistically significant relationship with the response variable is labelled with two asterisks '**'.

5.4. Limitations

The data was collected with limited consistency in some areas because of security reasons. The Communes bordering with Burkina Faso and Mali became increasingly inaccessible also by government stakeholders. In addition to the inability to access representative data at the community level because of heightened risk, there are other important biases to consider:

- Trend data is not fully longitudinal, only 43% are repeated observations from the same respondent in the KPI4 monitoring dataset, therefore its causal representativeness is limited. In other words, the amount of evidence collected might represent some Communes more than others by observing data distribution across Tillabéri.
- Seasonality skews trends since respondents are more likely to report distress during the lean season. Baseline and endline CSI collections were done in different seasons (dry and harvest) and it is likely that the reported drop is also explained by a season factor, which PRESENCES accelerated.
- Inferential models are partially effective as the sample is not always consistent with target distribution (KPI1 indicator) across different Communes. For this reason, the direction of a relationship between two variables might be also explained by external factors not in control of PRESENCES.
- Interviews with Key Informants were also limited in number therefore the analysis provided cannot be conclusive but rather informs 'soft' aspects of programming and validates (or illustrates some variance in perspectives) the quantitative and secondary source analysis.

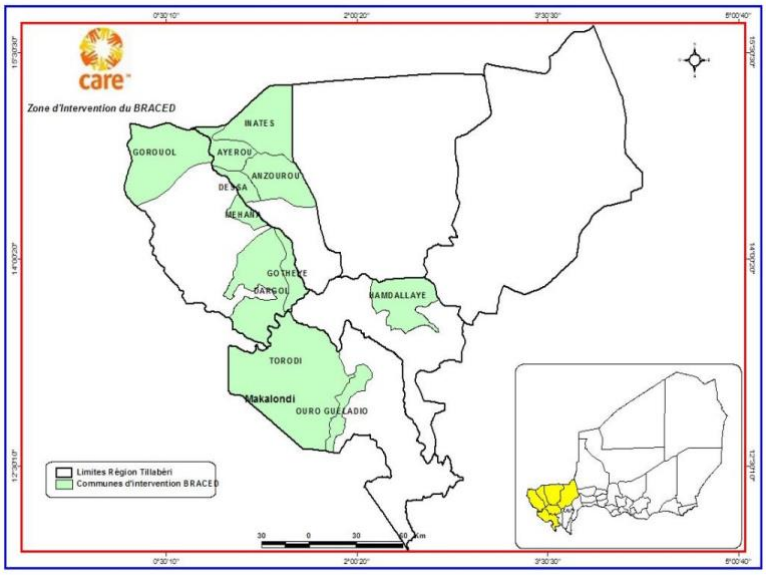
The project adopted mitigation measures to improve the quality of data collection through four rounds of tools review with the implementing partners. This exchange increased ownership over the data collection process and refined the quality of evidence used for this analysis. Yet, the underlying problem of poor consistency in ensuring adequate sample structure is exemplified in the Annex Tables showing number of respondents per Commune. There is a clear concentration of responses in limited areas, which might also represent a proxy of implementation since most of the monitoring was executed by field staff in charge of implementing activities.

6. FINAL EVALUATION RESULTS

6.1. Outline of PRESENCES outreach per learning area

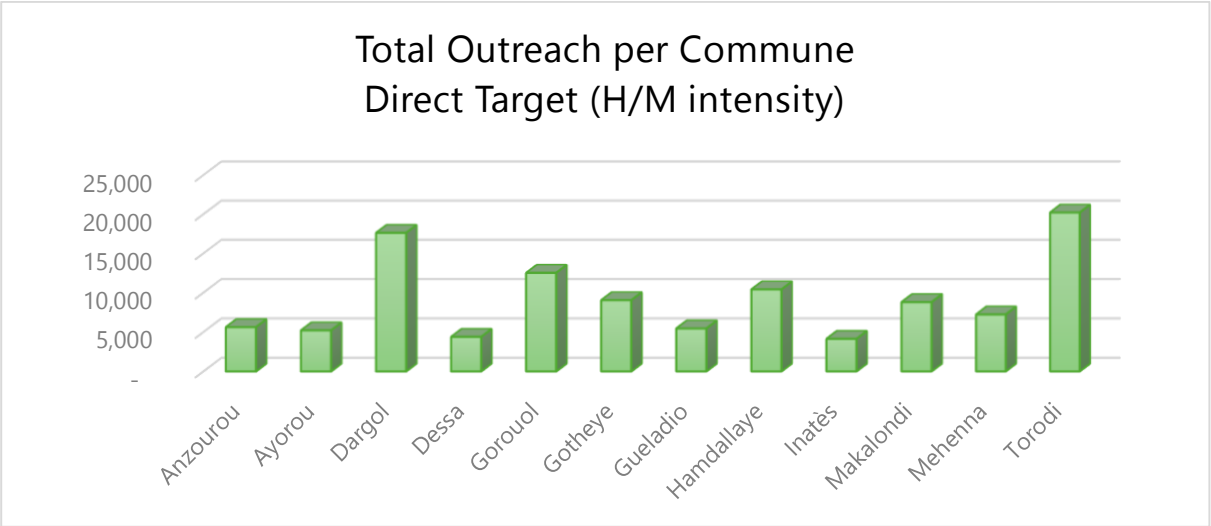
The outreach areas for PRESENCES are in Tillabéry region of Niger across 12 Communes. The map below shows in green where the target Communes are located. The overall population of the area targeted by the project was over 400,000 individuals. Yet, the evolution of certain security threats in border areas impeded the direct reach of individuals and communities to match what envisaged at inception.

Map 2: Niger PRESENCES Intervention Area



Generally, outreach equates to the number of successfully reached individuals within a geographical area. In the case of PRESENCES, it is the number of directly targeted individuals both from an activity or another member of the household. The graph below shows its distribution per Commune.

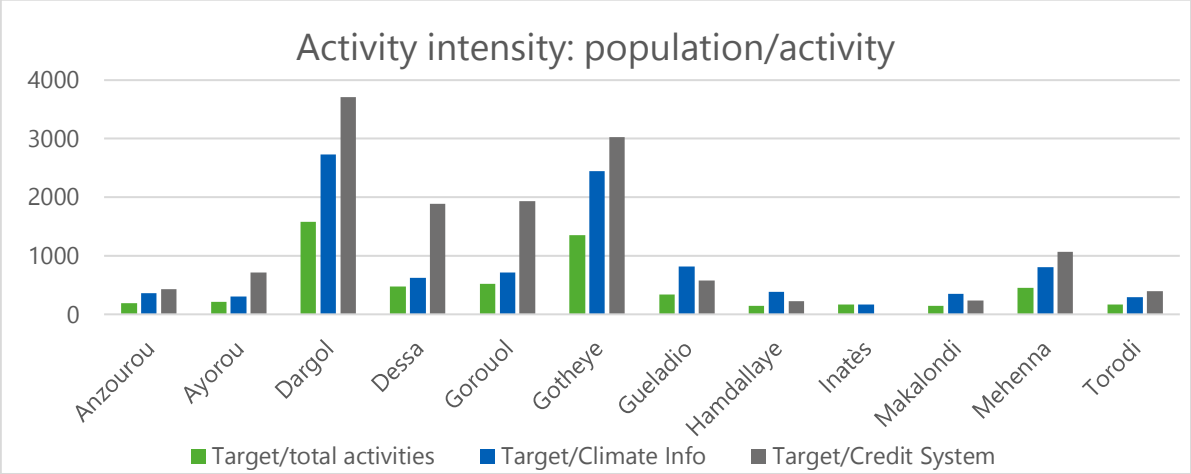
Graph 0: Outreach high and medium-targeted intensity per Commune



From the estimations shared by the team PRESENCES, the areas of Torodi, Dargol and Gorouol contain the greatest number of targeted high and medium intensity project participants. To provide more depth to this figure, another way to analyse outreach is by dividing the populations per type of activity that took place in selected communities for each Commune. The lower the ratio, the more frequently a certain

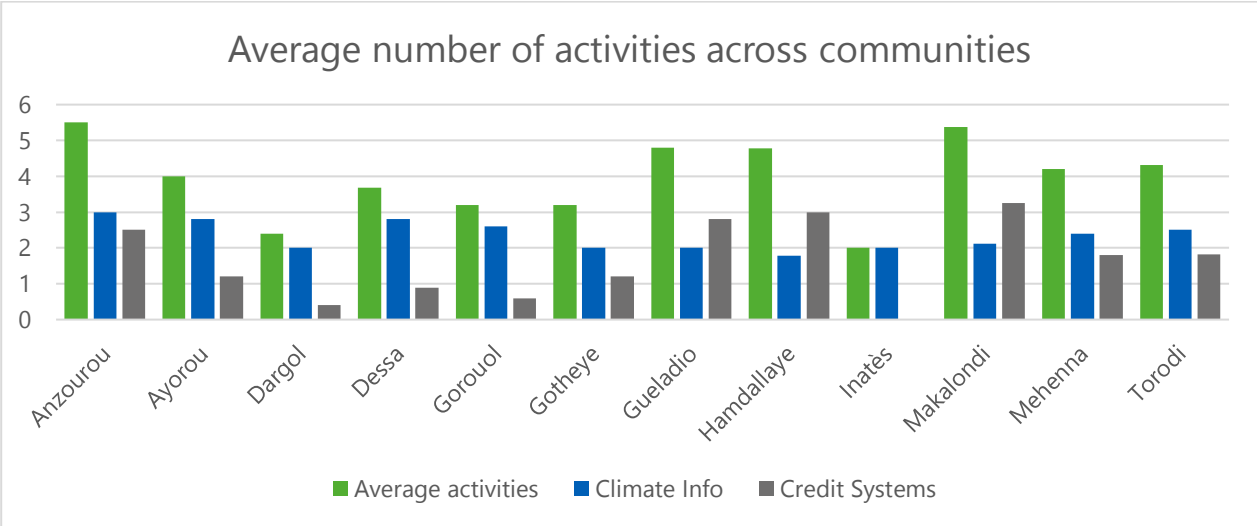
activity was conducted in a Commune. This information is useful if a correlation between results per Commune was to be derived based on how many inputs the project delivered across different locations.

Graph 1: Activities per capita



From the visual representation Dargol and Gotheye represent areas where project activities took place in more populated communities with respect to other Communes. A second way to investigate inputs dsitribution is to consider the average number of package-related activities related to climate information and credit carried out across target communities for each Commune.

Graph 2: Activities per area and total outreach figures

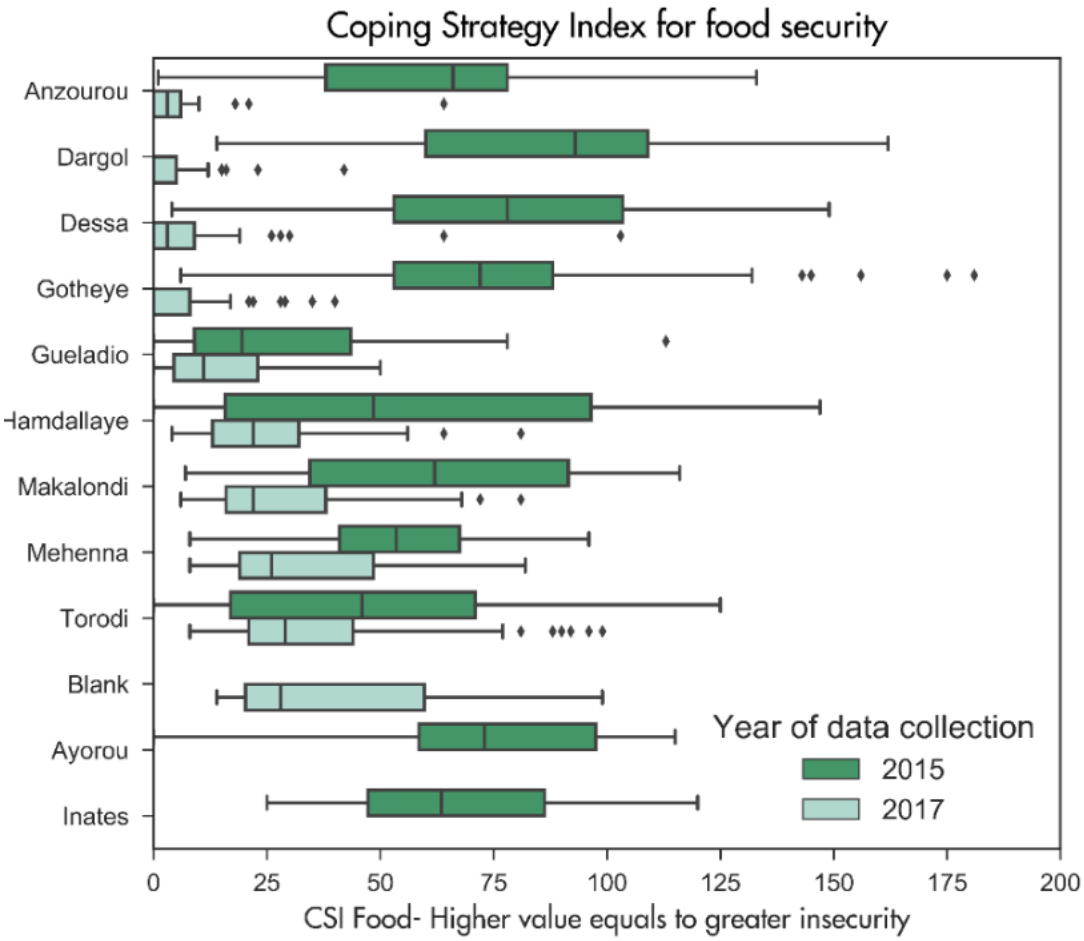


When considering the average number of activities per community, the communities with a greater value are the ones that received more programmatic focus in the learning areas under study: climate and credit information systems. From the graph these Communes would be: Anzourou, Hamdallaye, Gueladio and Makalondi, which have received most activities relatively to their total population.

6.2. Coping Strategy Index (CSI)

The CSI is a measure of weekly and monthly frequency of a set of negative strategies to face food needs and long-term poverty conditions. The tool is a standard one and provides a weighted value per strategy of how frequently respondents undertook selected actions and behaviours.

Graph 3: CSI Food per Commune

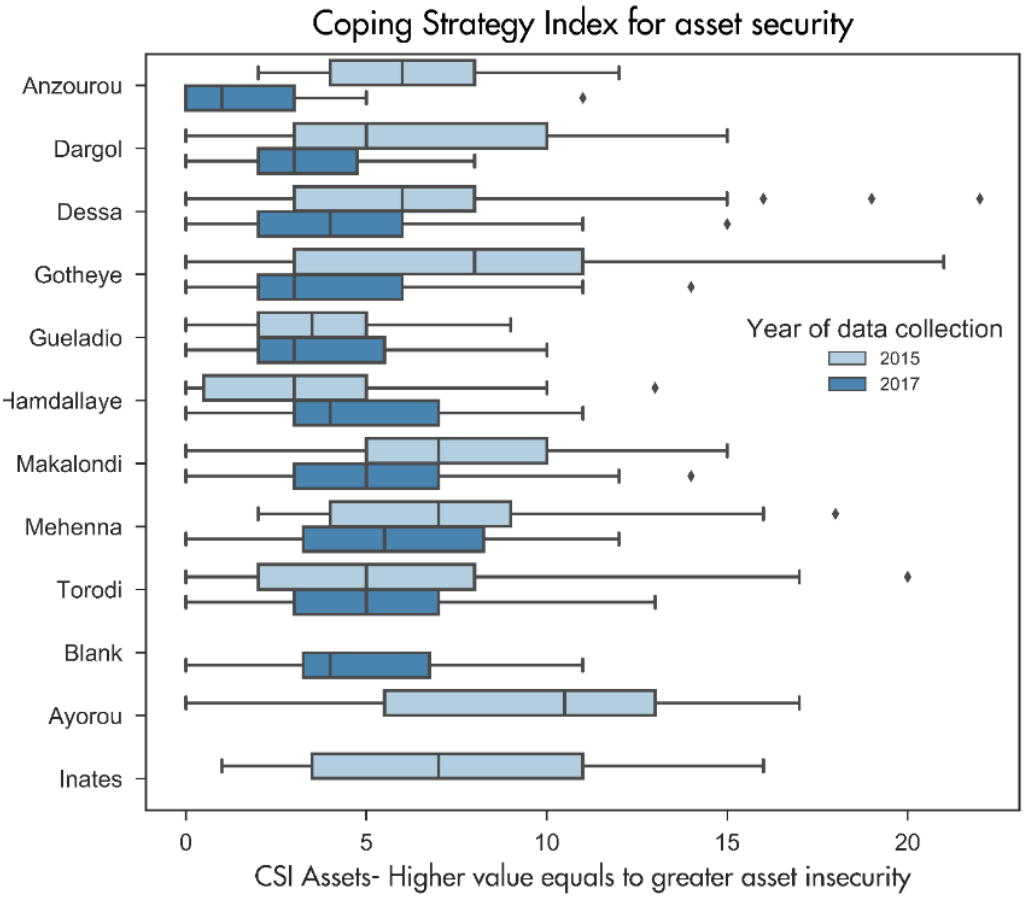


The impact indicator of the project is measured through the coping strategy index (see Annex 2: Tools), which is itself divided into 2 components: food security and asset security.

The food security dimension pertains to a range of negative coping strategies to address the most immediate needs, especially hunger related. The asset related questions aim at investigating coping strategies that are more strongly related to the use of productive resource to alleviate long-term poverty conditions. From the graphical representation of CSI data, there is strong evidence of a significant drop of negative coping strategies across all Communes, especially in Gotheye, Makalondi and Hamdallaye.

Such decisive decrease in food-related coping by 70% from baseline value might be explained by seasonality, data collected far from the rainy season at baseline is a major factor in explaining the difference with information collected during a more favourable season at endline. Even when factoring this explanation in, the difference is strong enough to suppose an important role of PRESENCES as well.

Graph 4: CSI Asset per Commune

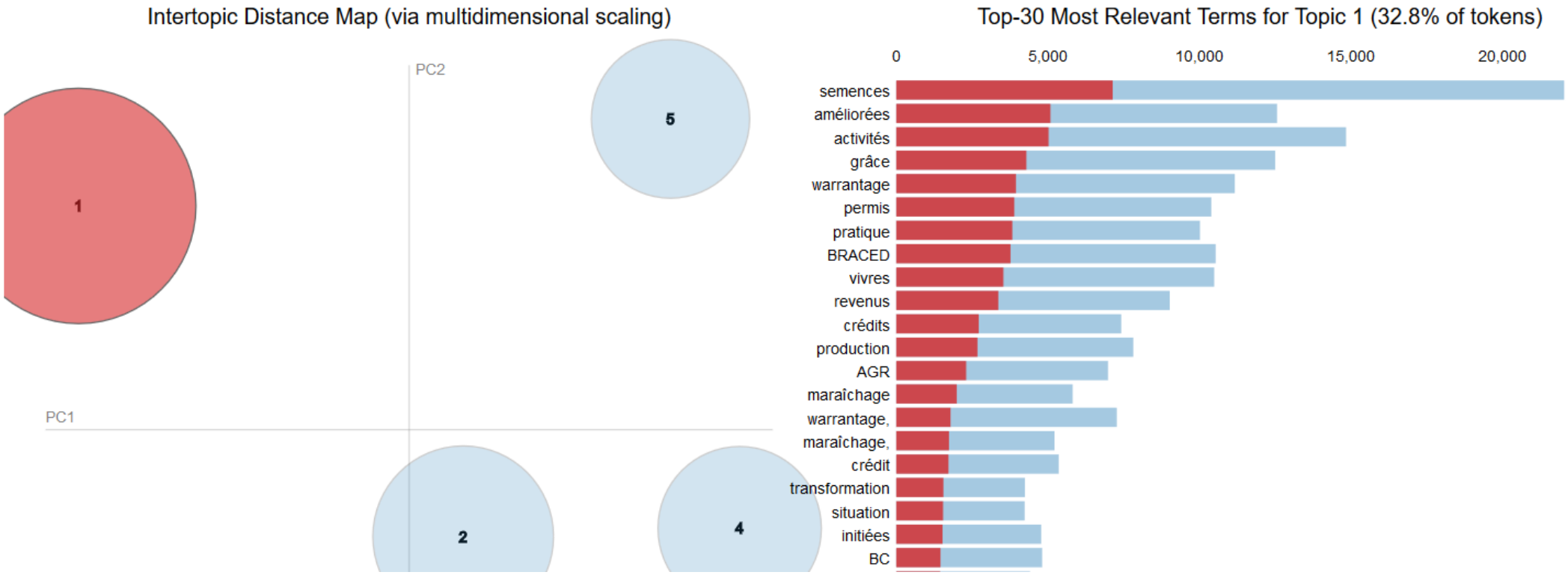


From as asset perspective, the Coping Strategy Index for asset insecurity also shows a similar downward trend, albeit less pronounced than the food security one. In Gotheye where activities were the least frequent considering the size of the population, evidence shows the largest drop, which it could possibly indicate a sign of cost effectiveness. The drop of assets' insecurity is about 30% from the baseline value; its value explains long-term poverty alleviation strategies and can be achieved with longer timelines.

One approach that can further optimise qualitative triangulation of the CSI is by processing word counts and modelling topics. Computational languages enabled the quick identification of the most recurrent thematic words that generate topics of answers to open-ended questions asked in the survey. The analysis of text is processed by the Latent Dirichlet Allocation algorithm[6], a probabilistic -based model on frequency of words, an effective mean to identify key patterns from large sample of respondents.

[6] http://scikit-learn.org/stable/modules/generated/sklearn.decomposition.LatentDirichletAllocation.html

Graph 5: Words analysis related to project attribution in reducing negative coping strategies



To validate and further describe the reduction of negative coping, over 30 focus groups were conducted at endline to find out how has the project intervention played a role in this change. The visual interpretation of emerging themes discussed highlights that there are multiple topics with different degrees of proximity. The word processor cleans the dataset and recognises combination of topics and produces multiple sequences of key words that describe them.

In this case, questions linked to how the group managed to reduce the severity of coping strategies collected at the endline from 36 focus groups converge to a theme that best explain attribution. Improved seeds through the warrantage system seems to be recognised as the most significant impact accelerator. Other layers of explanations are possible the visual depiction provides with a longer list of words ordered by relevance to further nuance the statement.

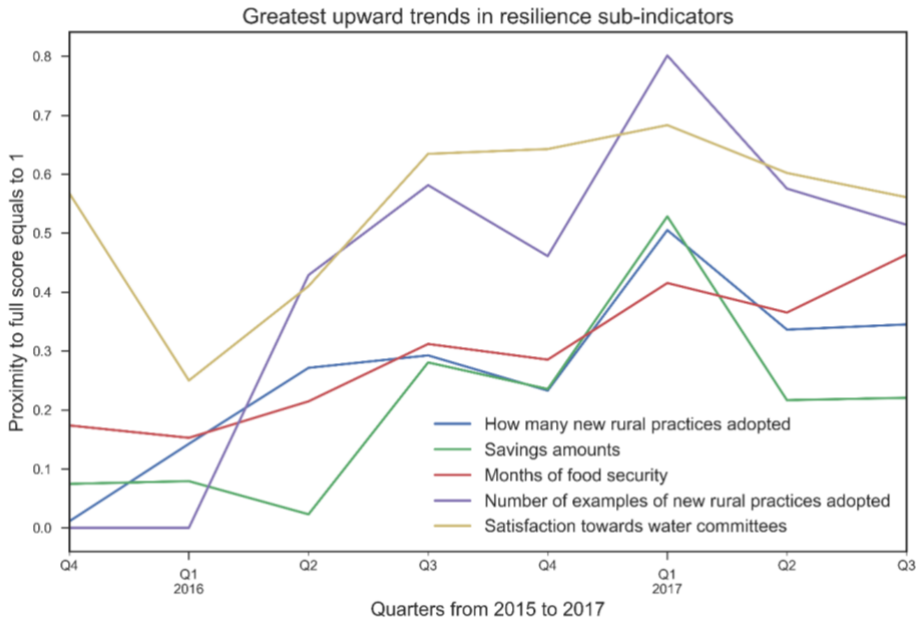
6.3. Outcome indicator KPI4 for Resilience

The KPI4 indicator represents the measurement of outcome change in terms of resilience that according to PRESENCES MEAL approach focuses on the following list of changes that the project prioritised:

1. **Integration of climate forecast information improves coping strategies**
    a) Better seed management (No. of seeds)
    b) The type of seeds to be used (local versus improved)
    c) Respect of sowing periods based on climate information
    d) Respect for climate information in herd management
2. **Improved seed utilization; participation in savings banks; use of NTFPs; access to warrantage, capital stock or savings growth (at the household level)**
    a) Number and type of livestock saved
    b) Savings in monetary form
    c) Value added from new integrated and disseminated farming practices
3. **New agricultural practices satisfy and exceed food needs**
    a) Number of months of food needs coverage based on own production
    b) Diversification of new resilient farming practices
4. **Local, national and regional systems and governance structures are equitable**
    a) Satisfaction with committees that manage access to water
5. **Equitable and inclusive access of natural resources for both farmers and pastoral groups**
    a) Knowledge of access rules to natural resources
6. **Impact of conflict on the productive resources of women and men in the last 12 months**
    a) Individual affected by conflicts related to natural resources
    b) Indemnity paid, and conflict solved by institutions in the last 12 months
7. **Confidence in local institutions to manage natural resources at the Commune level**
    a) Participation in the development of local conventions on natural resource management
    b) Use of the services of local conflict management institutions

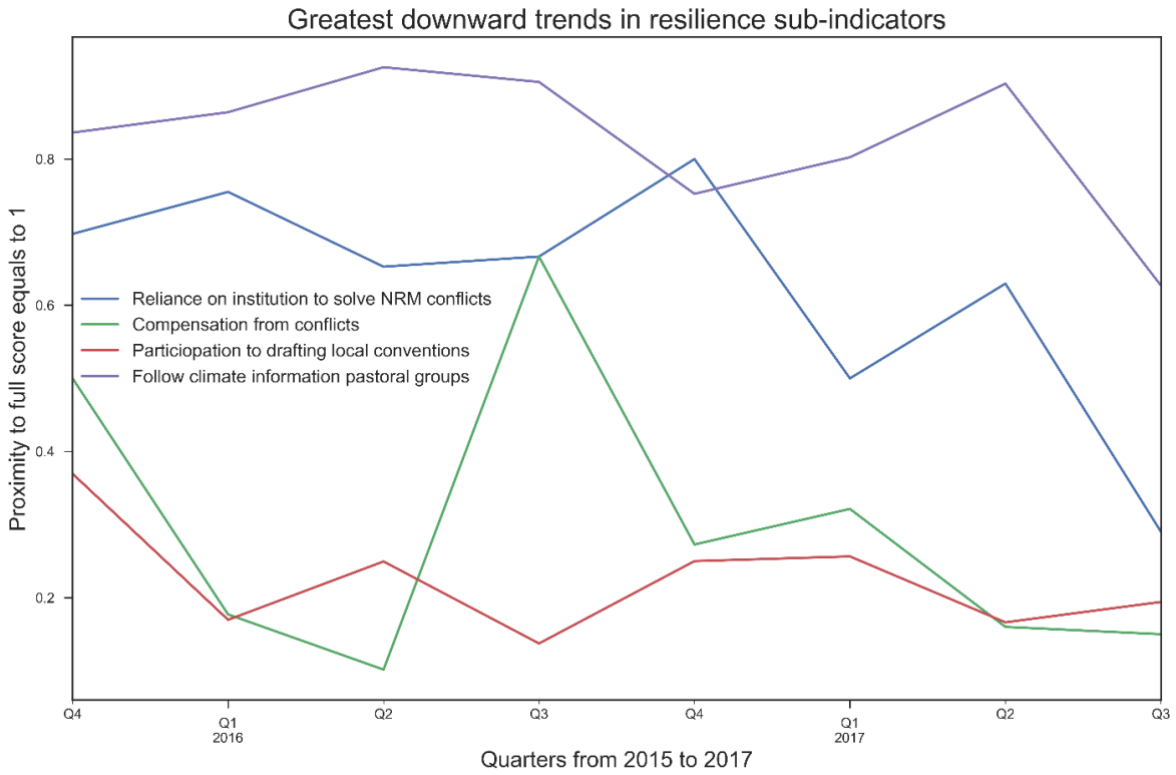
From the KPI4 list, each sub-indicator was quantified into a number from either a binary Yes/No or a numerical range. The graph below offers an effective way to understand the fastest dimensions of growth for resilience-related trends of change.

Graph 6: Resilience upward trends



The most consistent upward trends for resilience are presented in quarterly percentages since 2015, this is the best way to visualise the data given the gaps in consistency between months. The livelihood dimension greatly benefited from the project, the reported value of food security steadily increased despite seasonality along with the number of rural practices. Similarly, savings amounts more than doubled since the beginning of the project, though their drivers are heavily influenced by seasonality. From this graph, we can infer that livelihood has improved over time along with food security though there are contextual factors that can explain some variance, but the overall trend seems upwards.

Graph 7: Resilience downward trends



Some other sub-indicators related to institutional strength in managing natural resources have shown the opposite trends. The graph above points out that engaging formal institutional bodies in managing conflict pertaining to natural resource and regulating sanctions has weakened over time. Lack of participation of target groups in drafting local conventions also remains an issue. It is likely that security threats lowered the engagement of government stakeholders in providing participatory and consultative platforms where to solve conflicts and exchange with civil society members.

Aside from these trend lines, the other sub indicators did not show significant patterns. Hence, the evidence shows rural practices and access to greater monetary resources are the most suitable to describe change while institutional engagement for natural resource management remains the weakest link in PRESENCES multi-faceted definition of resilience. The evolution of the context in Niger is to be considered as the most likely explanation behind these trends and it seems PRESENCES did not reverse the structural issues related to institutional response in managing natural resources.

6.4. Learning package 1: Climate information

The learning package that underpins the climate information systems for resilience links to the following list of activities that were conducted by PRESENCES:

Activity One	•Conducted Climate Vulnerability and Capacity Analysis
Activity Two	•Facilitated Participatory Scenario Planning •Facilitated Community Adapatation Action Plan (CAAP)
Activity Three	•Supported Structures Communautaires d'Alerte Précoce et des Réponses aux Urgences (*SCAP-RU*)
Activity Four	•Carried out dissemination strategies of climate info by reinforcing community radio and informal channels

6.4.1. What kind of information users got in an understandable fashion and used it to take which livelihood-related decisions based on type of recipient?

Types of climate-related information and its use supported through the PRESENCES project

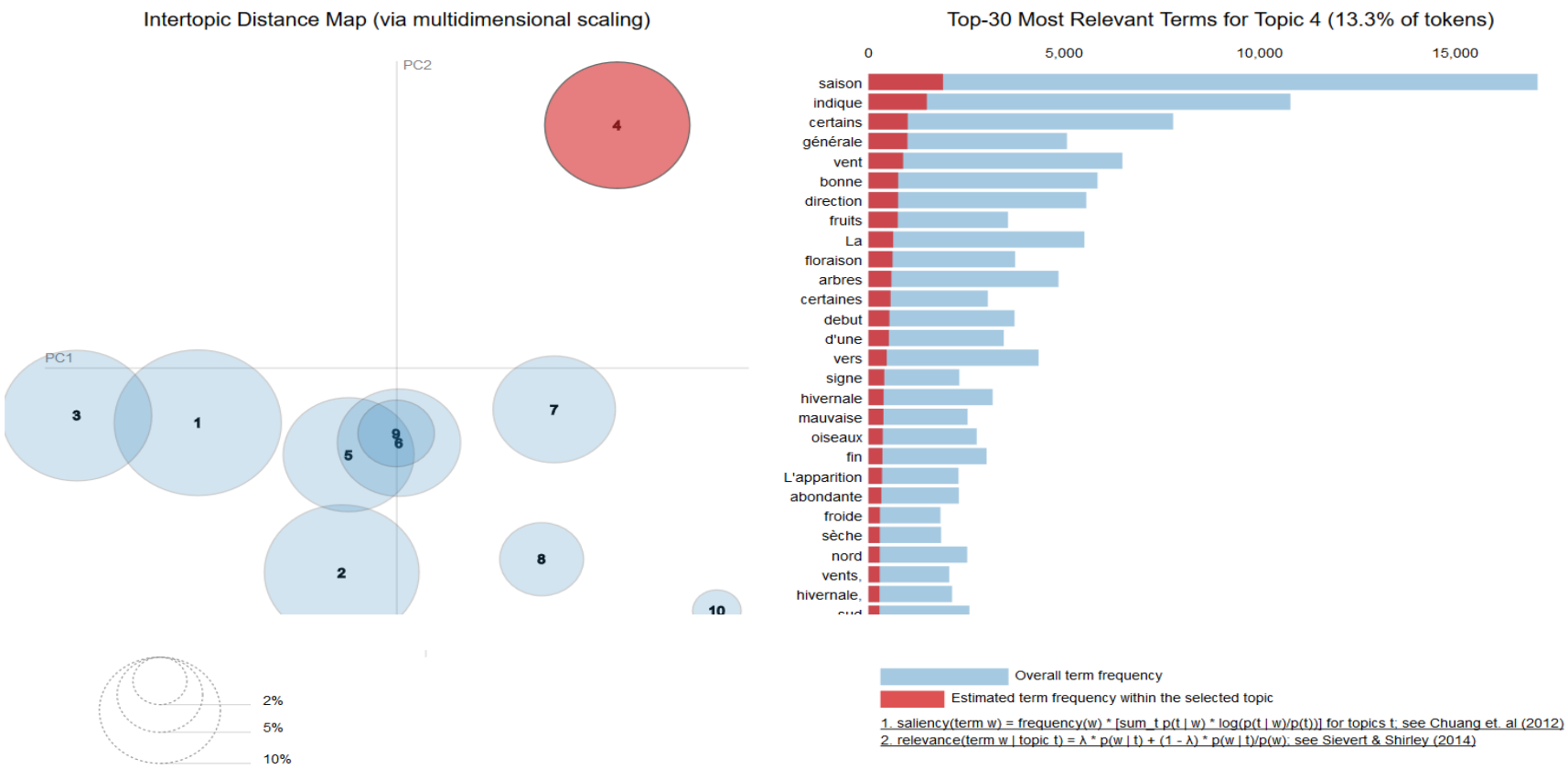
The types of climate information that were identified during the workshop are mostly related to rain patterns and crop selection. The implementing partners also mentioned how this type of information is used at the household, community and institutional levels.

Table 4: Uses of climate information

Type of climate Information:	Examples of how climate information was used
1. Date of the beginning of the rainy seasons by department 2. Date of the end of the rainy season by department 3. Periods of droughts during the rainy season 4. Cumulative rainfall 5. Distribution of crop failures 6. Epizooties data 7. Agro-climatic advice 8. Best pathways for transhumance	**Household-level** • Types of seeds adapted to the season • Choice of land where to crop • Kind of dietary supplements for livestock depending on the forecasted quality of the season • Complementary livelihood activities (irrigation, migration etc.) • Priority infrastructures and services at the commune level needed to address the implications of climate forecast **Community-level** • Vaccinations for livestock • Choice of dates, place and route of transhumance • Destocking options **Institutional-level** • Mobilization/financing of CES/DRS activities in the event of food crises; • Provision of providing infrastructure and service at the commune level to meet the needs of farmers and pastoralists • Information / awareness / support advice of farmers and breeders; • Adapt advice support according to climate information

One of the major intervention models used for the information to be operationalised is the Participatory Scenario Planning (PSP) organised across many communities, almost 90% of all target areas. The facilitation of designing strategies to internalize and use scientific climate information contributed to use of traditional and probability-based indicators in a much more integrated way. Various key informants during the final data collection claimed that communities eventually realised the superior accuracy of forecast information produced by the weather service and are now more likely to adopt it when planning their livelihood decisions that depend on climate changes, notably rainfall trends.

Graph 8: Topic patterns about type of information retained from PSPs



As shown in Graph 8, monitoring data offered further insights to understand that there were various emerging topics. Some were repeated more frequently from PSP sessions. By processing a few thousands answers over the course of 2 years, one of the key emerging patterns seems linked to the acquired ability of interpreting winds movement and how they correlate with the life cycle of selected crops. It is likely that traditional knowledge of reading the behaviour of wind movements was an effective entry point to explain the basis for introducing probability-based forecasting thanks to PRESENCES.

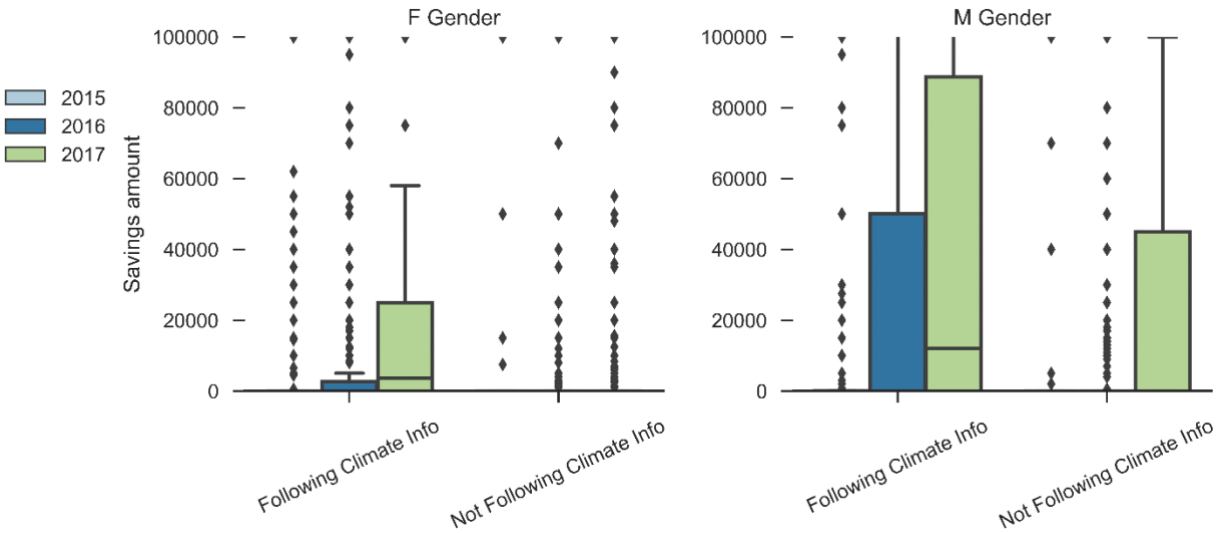
The relationship between climate information, livelihoods and savings through PRESENCES

From the final workshop held with all relevant stakeholders at the end of the project, the relationships identified between livelihoods and climate information were:

- Reduction of seed losses by avoiding early planting of fields
- Reduction of the sale of productive goods which were meant to finance migration
- Better safeguard of productive livestock by selling the aging animals while reinforcing the stock of cattle feed and avoiding conflicts between farmers and herders;
- Improved management and security of grain stocks (cereal bank, warrantage) and use of non-timber forest products to diversify livelihood strategies
- Diversification of adaptation activities at the announcement of bad season;
- Reinforcement of guarding / monitoring of the herd and avoidance of conflicts in the event of a bad season announcements;
- Take decisions on the use of agricultural stocks according to climate information

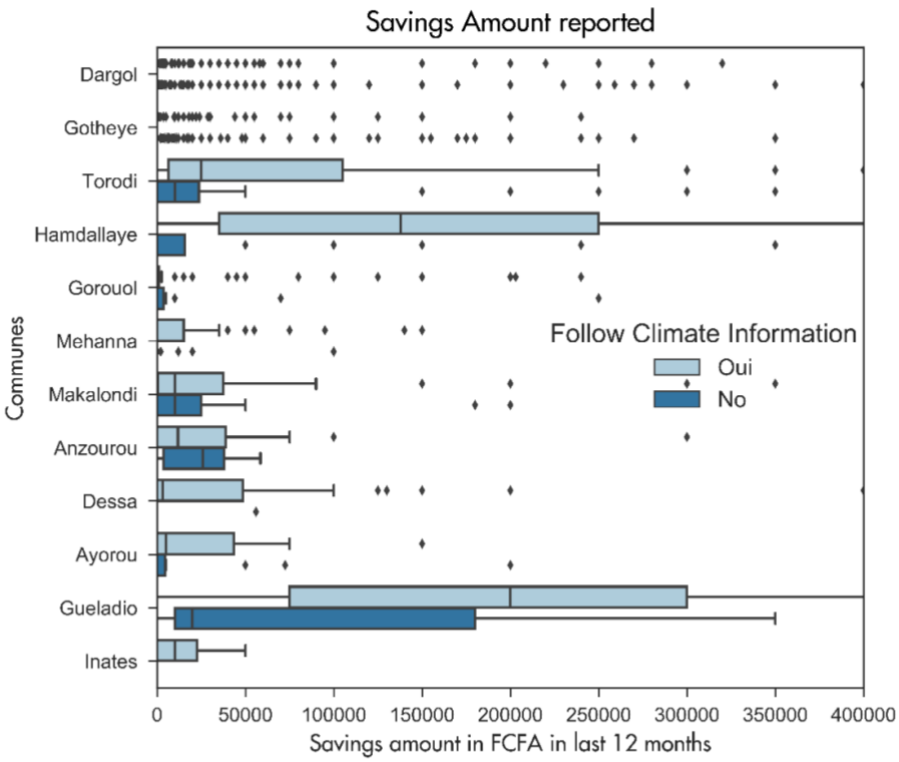
The way climate information brought livelihood changes can be further appraised from monitoring evidence related to reported savings. Therefore, to investigate if improved livelihood decisions produced an actual change in savings thanks to climate information, the following graph is proposed:

Graph 9: Savings and climate information



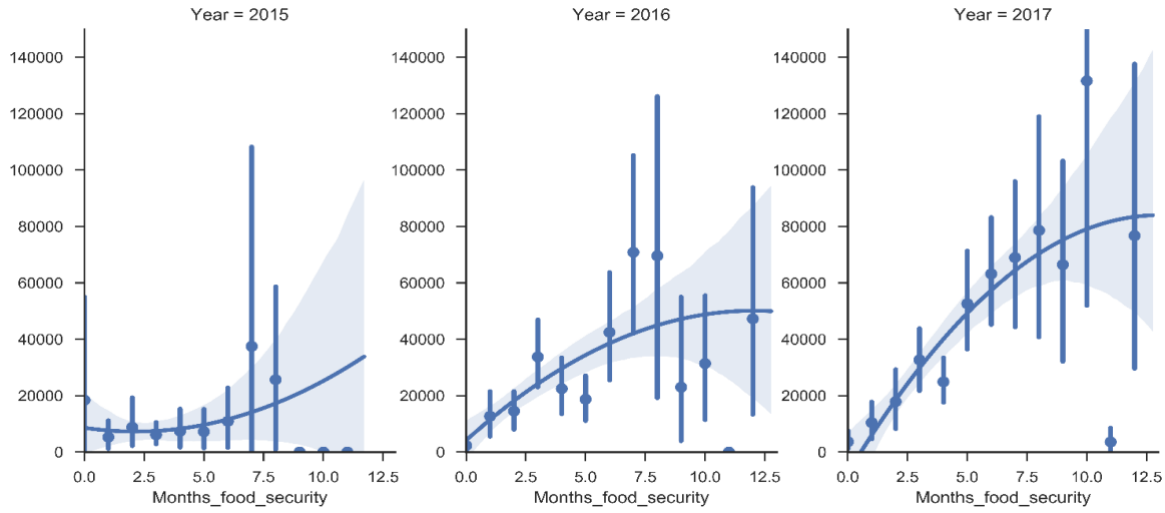
From the evidence presented, the amount of reported savings is significantly higher for respondents receiving and following climate information for both men and women. The proportional increase of savings amount for women is relatively greater over time but still less than a third of what men reported. The increase of saving amounts in monetary form seems to indicate an interdependence with climate information and credit systems.

Graph 10: Reported savings per Commune



A break-down of savings amount per Commune shows that in Hamdallaye, Gueladio and Torodi the increase was much more than all other targeted areas. The number of activities delivered in these Communes was relatively more elevated than in others, an indication of causation to be probed.
As further described by the trend lines in the graph below, the relationship between number of months with full food security and saving amounts accelerated over the course of PRESENCES implementation.

Graph 11: Resilience upward trends



There are various possible explanations to explain such a relevant increase in the steepness of savings when put in relationship with months of food security. The positive correlation that strengthened multiple times in less than three years indicates an intervention which triggered improvement in both food security and the application of climate information.

Link between Activities and Results

The reinforcement of climate information systems by PRESENCES rendered target communities more likely to choose adequate seeds, diversify means of livelihoods and sensitize others.

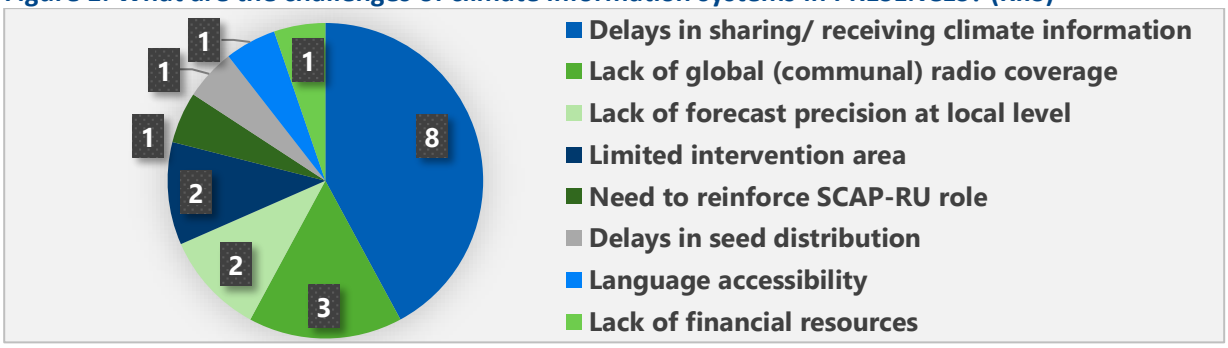
6.4.2. Did users receive information in time to take decisions?

Users were exposed to multiple channels to receive climate information owing to the implementation of PRESENCES. The project organised a series of Participatory Scenario Planning (PSP) workshops to share climate information generated by AGHRYMET at the national, regional and local level.
It organised annual *national seasonal forecast* events and *regional PSP workshops* to report climate information at the municipal and departmental level to technical services. The climate information reached the community level through interaction with relevant stakeholders (through local PSP) by assessing the forecasts based on local indicators and its convergence with scientific information. These workshops produced recommendations and advices for users to inform rural practices and natural resource management.

In addition to direct engagement at various levels, PRESENCES supported the dissemination of recommendations and opinions through radio stations. Their role was essential in broadcasting seasonal forecasts and in sensitising the local population on resilient technologies such as: warrantage, composting, bio-digesters, herd management, production of multi nutritional blocks for animals etc. To further improve the accessibility of climate information, the project developed visually-effective communication material (e.g. *pagivoltes,* which are image boxes demonstrating different scenarios in expected seasons and the relevant strategies to adopt) to further increase the reach of recommendations produced through local PSPs.

Key informant interviews, however, revealed that the climate information, specifically on the start of raining season, does not always 'arrive' on time. There is a critical moment at the beginning of the expected sowing period where farmers need to decide time and type of crop they will invest on. If the information has not been directed through the appropriate channels by the required time, it may be too late for the population that will not wait beyond this point. The situation is even more aggravated for transhumance populations who need to decide rapidly their movement across the different areas of Niger or neighbouring countries. In fact, delays in sharing information (usually from national/regional level to community level) was stated more frequently as a challenge of the climate information systems:

Figure 1: What are the challenges of climate information systems in PRESENCES? (KIIS)

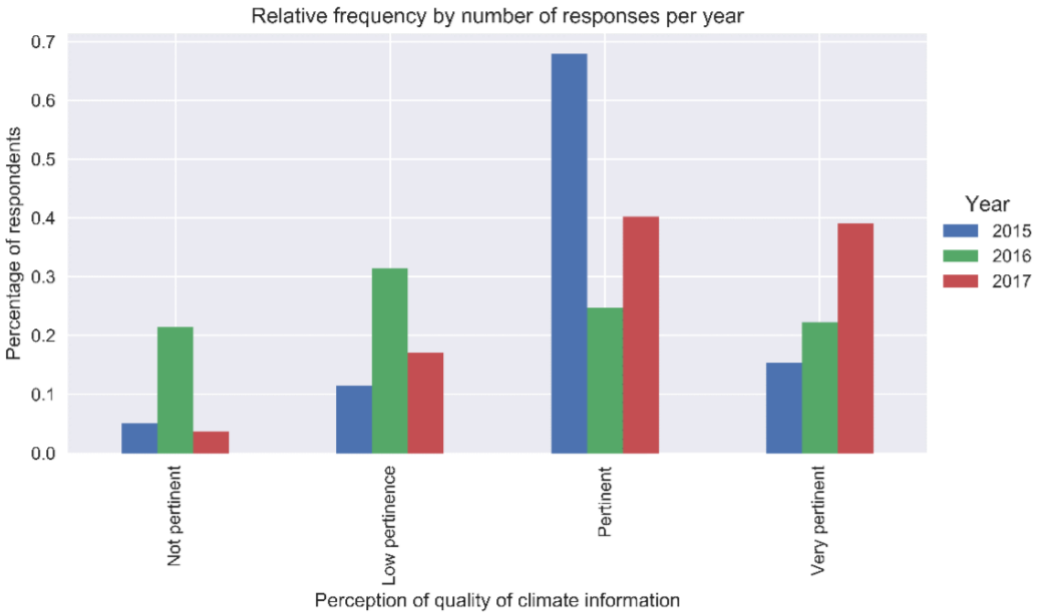


Analysis of Monitoring Data

The monitoring data produced throughout the implementation cycle revealed an embedded feedback mechanism about how pertinent respondents found the climate information to be. The two histograms

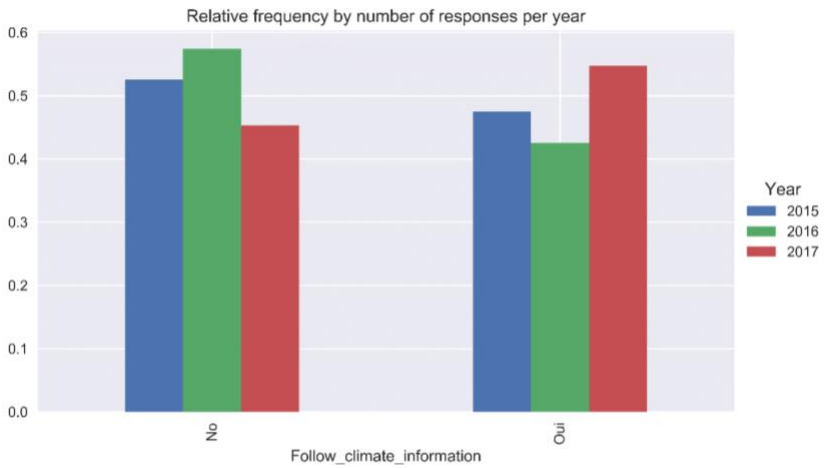
represent the distribution of feedbacks from 2015 to 2017 along a scale from non-pertinent to very pertinent information. The values per each category are shown relatively to total responses in one year.

Graph 12: Climate information pertinence



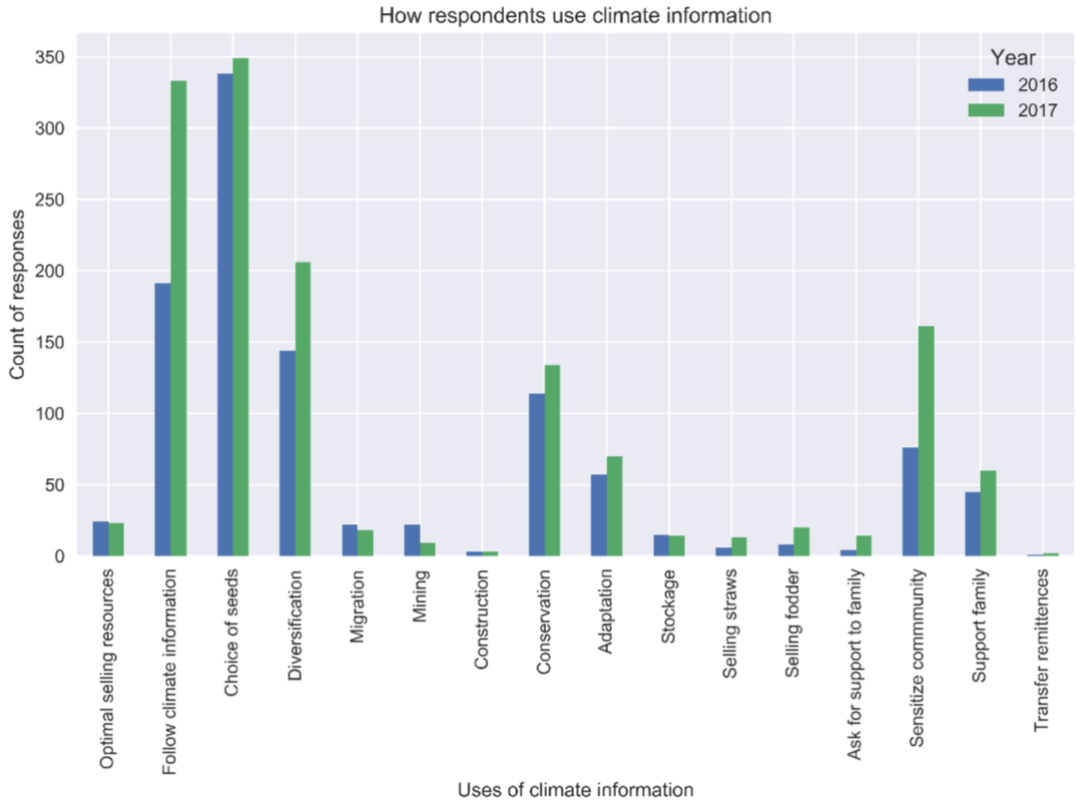
Most participants reverted back to positive feedbacks after a drop between 2015 and 2016. The climate information is generally deemed as pertinent but the intervention did not manage to mantain a constant upward trend, though the overall difference from baseline is a clear improvement. Access and use of climate information were also considered in the visual representations to investigate how information spread and translated into action.

Graph 13: Following climate information



Only in the last year more respondents reported to receive and follow climate information than who did not. The project has contributed to accelerate the dissemination of climate information to a critical mass. The reception and acceptance of climate information accelerated one of its main uses: to sensitize the community. The histogram below shows such increase for both livelihood and awareness-related actions.

Graph 14: Uses of climate information



The information from key informants also confirm that the communities are now increasingly using climate information and particularly for the following reasons: planning or preparation and adaptation of their agricultural or livestock practices, decision of when to sow, choosing the appropriate type of seeds or use of improved seeds. Testimonies from interview participants stress the change in the perception of agro-pastoral communities in terms of how useful (or accurate) the forecast information can be. The fact that local forecasting knowledge was not completely dismissed by the project but rather complements scientific information came out as a positive approach of the project.

'The climate information is not something just for engineers or experts… It is now understood in the fields, even the pastoralists want to know… they have their traditional knowledge, but they need the scientific information, they know that they can get informed by an institution, so it is a big change... before they would not care so much but now they pay attention [...]. They trust it and they know where to look for the information. This is one of the biggest changes I have seen... it's very clear.'

BRACED local partner staff

Link between Activities and Results

The diffusion of climate information has slightly increased over the years along with its relevance. More people than before are recognising its usefulness and are commencing to sensitize other community members.

6.4.3. What user-focussed channels have been used to mainstreamed relevant information by the government and what is the potential for can the EWG/SCAP-RU system to be further strengthened?

PRESENCES committed great focus to the capacity building of early warning structures through training on data collection and transmission of fact sheets at the Commune level. The efficiency of data flow greatly improved from complete lack of system to transmission of relevant climate information via the ODK application to the "Observatoires de Suivi de la Vulnérabilité" (OSV) and sub-regional committees for food crisis prevention and management. In practice, PRESENCES established adequate SCAP/RU within communities and OSV at the Commune level by training dedicated human resources and enabling the whole system to be digitised and accessible.

PRESENCES linked the whole inter-community framework for the exchange, validation and reporting of information on climate events, food security, health and nutrition, social relations and conflict management, environment and natural resource management with data transmission channels such as SMS and tablets in the transmission of early warnings up and down-ward.

In selected Communes, OSV are now equipped with skills and the required technology to download the vulnerability monitoring sheet and provide information on the household living conditions sector by sector. The collection and transmission of this type of information at Commune level is critical to enable the chain of the national system for prevention and management of food crises (DNPGCA) to be activated at the level of municipalities.

From the key informant interviews with the *Services Techniques* in Torodi, Guelladio and Hamdallaye, it became apparent that the roll-out of mobile phones and tablets has not advanced equally across the different communes; it also came later in the project's implementation which has a hindering effect as far as establishing ways of working and measuring progress is concerned. Nevertheless, the use of mobile phones and tablets, when successful, has made a tremendous improvement in the speed and cost-effectiveness aspect of transmitting climate and early warning information. If relying on physical paper forms and volunteers or technical staff travelling in order to submit the information, the system is dependent on a lot more time and transport means which render it low from a sustainability aspect.

Link between Activities and Results

By introducing technological means and reinforcing the function and capacity of SCAP-RU and OSV 'monitors', PRESENCES has demonstrated an approach likely to be sustained, as long as the Communes manage to take charge of the systems and functionality costs/ resources.

6.4.4. Were certain communication channels more important than others and did they change over the course of the project?

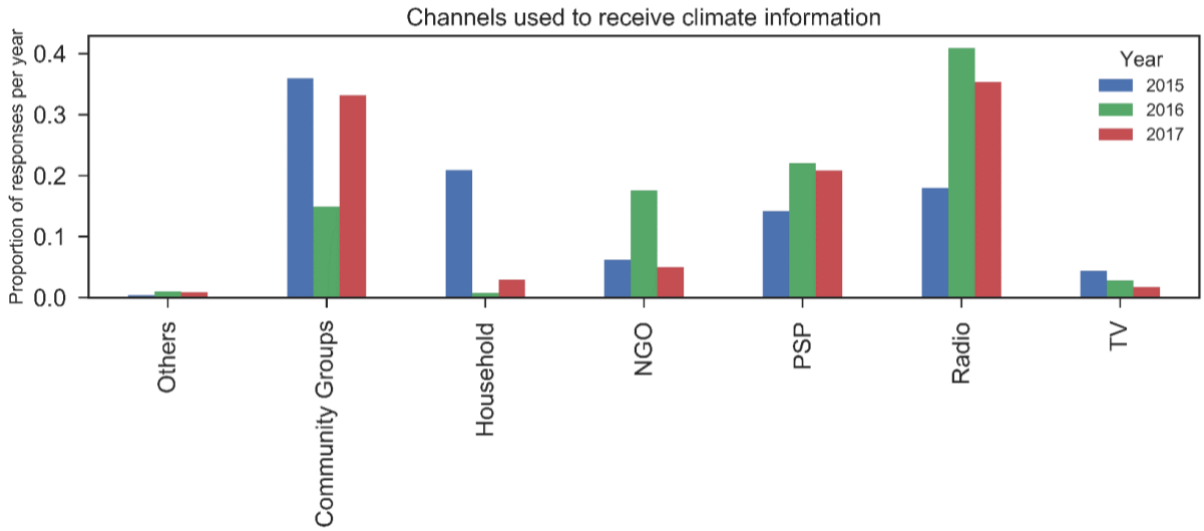
The key types of communication channels in the context of PRESENCES were institutional and at the community level. As explained in the sections above the SCAP/RU is the backbone of how climate and vulnerability information flows from the municipality to the Commune level. In addition to reinforcing this system, the project strengthened the climate information dissemination platforms by adopting a multi-actor approach. The diffusion of climate information leveraged on team of volunteers at the community-level and mobile technology. The three community-level interventions used in the context of PRESENCES were:

1. Engaging community radio: supported to broadcasts climate information and other BRACED activities. The information has been disseminated to farmers/breeders in local languages; usually in the evening, which is the most favourable time to reach the greatest audience. Community radios existed at the level of communes and communities. They were supported by the project; this has improved the dissemination of climate information in the area.

2. Distributing radio receivers: made available to men and women leaders of pastoral groups. Radio receivers can capture information broadcasted through community radios in pastoral settings where the signal is weaker, or the diffusion of radio is lower.
3. Dispensing cellular phone: made available to community monitors responsible to collect climate information. The phones have been used to communicate information such as the strength and distribution of rainfall, availability of grazing land and water sources.

By exploring monitoring data to identify the key channels people reported most often, the radio is the one that grew the most over the implementation cycle of the project. The use of community radios, followed by mobile phones is also the most frequently mentioned in key stakeholder interviews. This trend goes along the mobilisation of community groups, though the latter did not seem to remain constant.

Graph 15: Channels reception climate information



The leverage on radio stations significantly changed the way information was shared from the beginning of the period. If at the beginning of PRESENCES the most common channel to transmit climate information was community group, by the end of the project accessing information from radio is more frequent.

Link between Activities and Results

PRESENCES supported a predominant uptake of climate information from radio channels while maintaining a strong engagement at the community-level.

6.4.5. What limitations were encountered in the climate information systems that could reduce the impact on resilience?

During the final workshop organised with all implementing partners a series of challenges and mitigation strategies were identified in relation to climate information systems.

In relation to the acquisition of rain forecast for the season from national weather bodies and the organization of PSP workshops, delays in the sharing of results because of a difficult collaboration with the stakeholders in charge of producing weather reports produced barriers in accessing information.
The suggested solution is to work in greater synergy with other non-state actors to improve collaboration with the Directorate of National Meteorology of Niger.

In terms of dissemination of recommendations by radio stations, limited capacity of radio presenters to explain technical knowledge was addressed. The participation of specialists from governmental technical

services and NGOs in running radio programs was more than 60% of all targeted areas. Yet, insufficient survey techniques aimed at maximising the audience in need of climate information still requires improvements, especially in the polling approach to determine its profile and the type of information they find most effective. In this respect, a limitation that was not addressed in PRESENCES was to ensure gender equitable access to information via radios. Women's lack of exposure and financial resources could have been better tackled by organizing specific listening club that best aligned with their availability and needs.

Unclear sustainability of the dissemination of information by radio stations and other channels remains because of the lack of financial means at the Commune level to take over the initiative. PRESENCES did encourage municipalities to plan for the diffusion of PSP information in their Communal Development Plans and Annual Investment Plans but there is no evidence whether these plans did achieve the expected budgetary changes to allow the perpetuation of radio programmes linked to climate information. A less cost-intensive strategy could be the dissemination of illustrated flip charts (pagivoltes) across communities to share climate information beyond the project's duration. This approach proved to be really effective in the context of PRESENCES.

Key informants almost unanimously mentioned the lack of financial resources as a limitation, or in reverse, financial and resources support being the biggest contribution of PRESENCES in setting up and reviving the SCAP-RU/OSV and diffusion of climate information. In a stakeholder's word*:*

"The Service Technique have the information but BRACED facilitated (means of transport, per diem…), taking in charge all the activities. Also, it tried to reinforce the capacities at the state level, this does not happen consistently… BRACED did a workshop every year to build skills in terms of what to do with the data and climate information and provided capacity building...". As another project staff stated, "in some communities, there is going to be some volunteers/ monitors that will continue being engaged, but in some villages this will fade out…".

The scale of other initiatives was also cited as a limitation. For instance, the "Geographic Information Exchange Platform" among pastoral communities was critical to disseminate information about best pathways for transhumance. Also, in this case, this effective initiative was only adopted by targeted sites as the project did not manage to find the adequate leverages to extend its adoption across all pastoral areas.

Link between Activities and Results

Lack of funding strategy to support the sustainability of radio stations could slow down the rate of dissemination of climate information.

Learning package 2: Credit System for resilience

The learning package that underpins the credit systems for resilience relates to the following list of activities:

Activity One	•Established committees to manage cereal banks and warrantage
Activity Two	•Provided cash-for-work through PHASE emergency response
Activity Three	•Trained communities on market analysis •Trained village agents and created new VSLA groups

6.4.6. What types of credit systems were supported by PRESENCES and where?

PRESENCES supported various channels to incentivise local credit systems and financial mechanisms focused on building financial resources. Importantly, this type of support was clearly linked with a series of other activities meant to improve the ability of vulnerable households to generate more income and diversify livelihoods.

Table 5: Credit systems

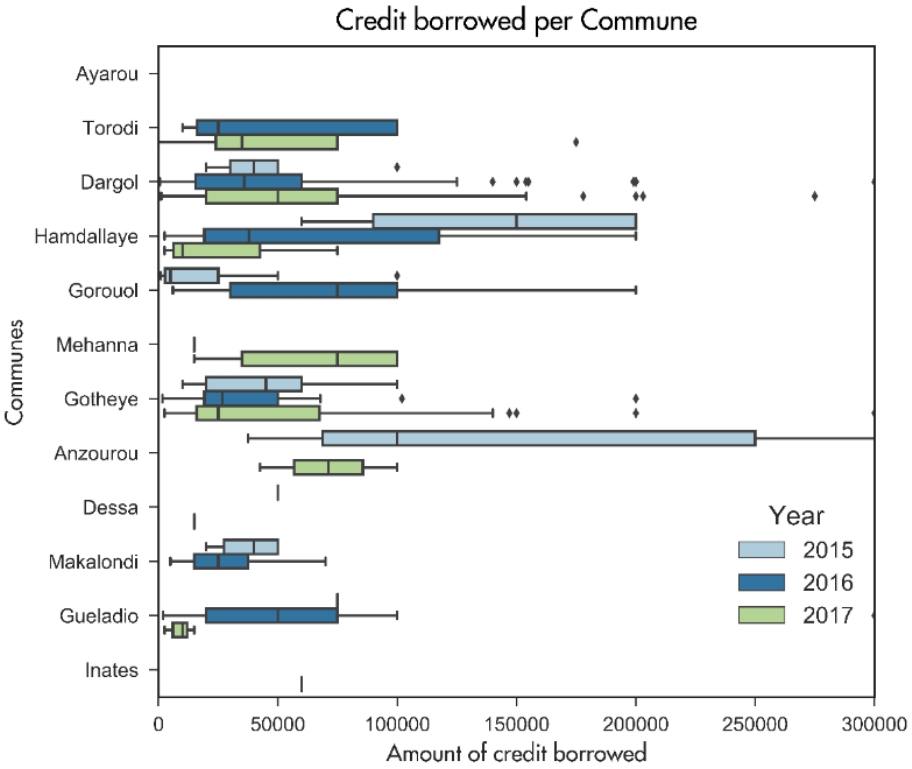
Channel Description	PRESENCES Support
AVEC/VSLA: These are savings and credit groups organised around periodic contributions to an internal fund. In general, group members carry out joint activities to generate income	• Created and sustained new and existing VSLA groups • Linked wholesalers with VSLA groups • Conducted a VSLA-resilience action research • Strengthened livelihood solutions by mainstreaming livelihood schemes in support of income generations strategies: habbanaye[7], vegetable gardens, non-timber and agricultural forest products • Increased financial capacity of women by providing processing machines for goods with limited market supply
Warrantage: This is a credit system where an individual producer gives his/her grain and non-timber forest products as collateral in order to receive a credit up to 70%-80% of the total value of the stock from a microfinance institution. During the lean season, the producer can re-sell its stock in the market for a higher price, so to repay the credit while generating extra income. Warrantage was enabled through PRESENCES's own funds administered by its local partner (Mooriben).	Formalised a contractual relationship between Mooriben and the MFI LINGU • Secured funds from the microfinance institution • Sensitised selected communities on the utilisation of the warrantage • Established a governance structure and a management committee for each warrantage facility • PRESENCES committed the released funds to the communities beyond the project's life cycle so that the activity can continue.
Cereal Banks: It is a food security system at the community level to ensure better management of grains during the lean season.	• Subsidised cereal banks by enhancing its supply capacity

[7] Habbanaye is the concept of loaning an adult cow, goat or other animal to a neighbour or family member in need. When the animal gives birth, the original is returned to its owner and the baby is raised for milk and meat. The cycle continues as more breeding occurs, spreading the wealth of livestock throughout the community.

The products generate income when sold in the market through a cooperative model. The purpose of various types of cereal banks[8] in Niger is to provide the community with a stock of cereals to cover its food needs for some months. To fulfil this function, the cereal bank includes a number of operations: collection, storage, storage and sale of cereals.	• Established and strengthened the capacities of the management committees through an improvement of their governance mechanisms and financial management practices • Shared climate information with cereal banks management committees to inform decision-making in regard to stock supply

The main channels underpinning the credit systems reinforced by PRESENCES linked to reported credit amounts, an information captured during implementation. The following box-plot provides a break-down of how any form of credit was distributed across Communes over the course of the last three years.

Graph 16: Credit distribution across Communes

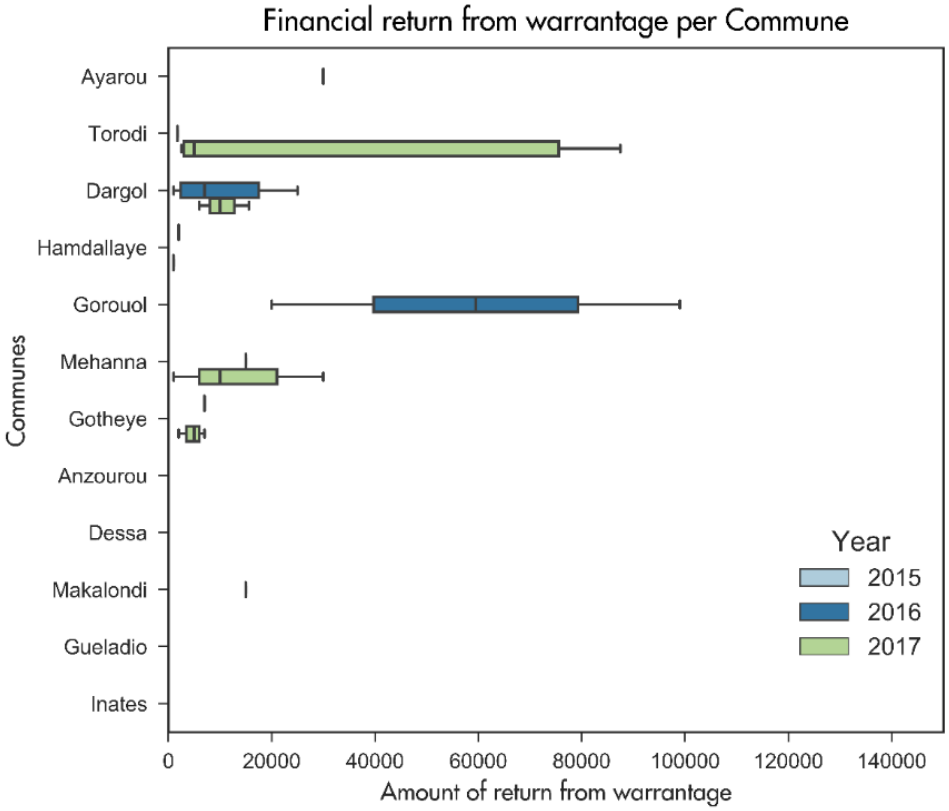


Reported credit increased in Torodi and Dargol while decreased in Gotheye and Hamdallaye. There is a wide range of possible explanations to these trends and it remains unclear whether credit increases correspond to indebtedness, to greater propensity to invest or just easier access to credit.

It is also a mixed picture since the distribution of project activities does not lead to any of the above-mentioned interpretation of the data. Yet, if we intersect the amounts of reported credit with evidence of financial returns from the Warrantage there might be a possible explanation that qualify credit intended use.

Graph 17: Financial returns from warrantage

[8] http://www.reca-niger.org/IMG/pdf/RECA_Banque_cerales_Note_1_typlogie.pdf



The box-plot leaves the impression that warrantage was implemented in very limited areas or that people under-reported financial figures. Where it was reported, the financial returns correspond with up-wards trends of credit amounts in the same locations notably Dargol and Torodi. It is reasonable to suppose that warrantage provided an incentive for community members to borrow more and to re-invest in a virtuous cycle. Evidence from key informants further validate that warrantage was instrumental in generating profits in the communities where it was implemented and that it induced positive change in economic security.

Link between Activities and Results

Where PRESENCES implemented a reinforcement of credit systems by better structuring their governance, target communities are more likely to borrow in a way to increase production to be reinvested through the warrantage, VSLA and similar mechanisms.

6.4.7. Did people see the PHASE cash-for-work intervention as a form of credit system?

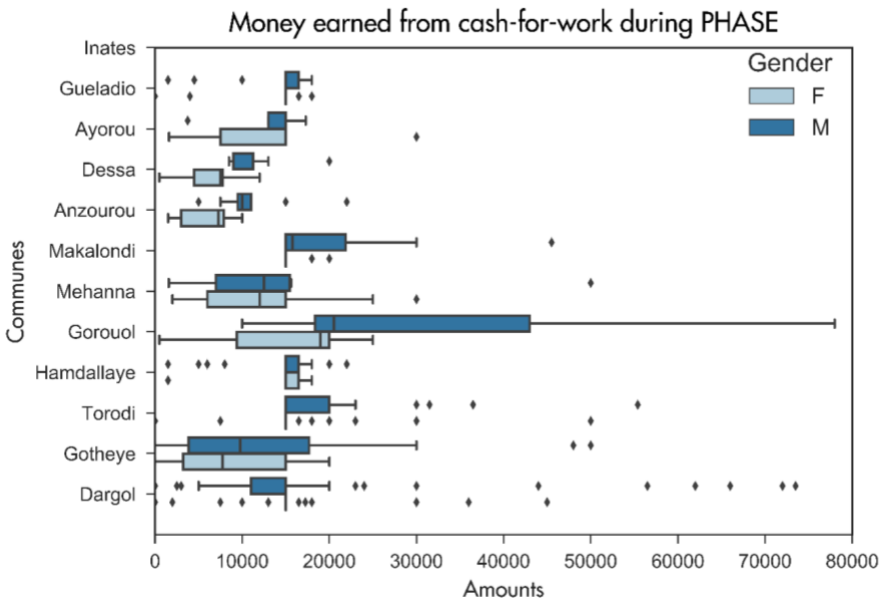
Even though there was not survey carried out to assess whether communities perceived PHASE as a form of credit, implementing partners indicated that cash received from PHASE was used as a saving strategy to meet several needs, in order of priority to:

1) Purchase food for the lean season
2) Improve livestock health
3) Buy small ruminants for fattening and restocking
4) Access health care for the family
5) Purchase school supplies for children
6) Slow down migration
7) Cover for social needs
8) Pay contributions in advance in saving groups

These strategies were highlighted as contributing factors to the ability of households exposed to climate shocks to reinforce their assets based. At the same time, the results from PHASE cannot be considered as similar to more permanent credit systems as its short duration made it more of a palliative intervention without lasting effects. In fact, PHASE did not provide funds for social protection such as climate insurance or specific targeting criteria for cash transfer meant to reach the most vulnerable groups, such as elderly and disabled populations. The lack of focus on permanent vulnerabilities and self-financing mechanisms rendered PHASE much closer to an emergency response than a credit mechanism that can generate longer-terms livelihood changes.

Despite the lack of sustainability, PHASE did produce the condition to boost the circulation of cash. As shown in the following box-plot, the amounts earned through PHASE intervention varies across Communes and is affected by inter-gender differences.

Graph 18: PHASE cash-for-work



Garoul and Mehanna reported a greater increase in cash-for-work than other Communes. Evidence from the same locations shows an increase in credit amounts reported by respondents. This relationship indicates that PHASE represented an investment opportunity for several recipients in the identified areas.

Link between Activities and Results

PHASE cash-for-work presented a positive correlation with general trends of credit reported in selected areas. The use of cash-for-work was reported to be focused on adaptive livelihoods and behaviours.

6.4.8. What leads to credit system functioning and how do they support the most marginalised beyond the intervention in terms of income generation?

Characteristics of clients who had access to credit in the context of PRESENCES?

From a livelihood perspective, the credit recipients in PRESENCES come from poor and vulnerable households and they mainly rely on subsistence farming and livestock. No credit system was developed for pastoral communities but only for individuals that belong to settled communities.

They were selected through a participatory process with other communities' members, which met in assembly to identify the credit recipients on the basis of specific criteria (vulnerability class, group regulation etc.). Most of the individuals accessing credit belong to households that are relatively more exposed to the declining fertility of the land and lack of means of production and fertilisers. For these households, agricultural production hardly reaches six months.

Most often, the profile of target groups accessing credit services in PRESENCES did not have prior access to inputs (small equipment, seeds, fertilizers, etc.). and cannot afford to buy them in case they exist in communities.

In terms of geographical distribution, PRESENCES developed different credit systems across various Communes in Tillabéri region. The warrantage system and cereal banks were setup based on the availability of agricultural production[9] or non-wood forest products[10]. VSLA groups were instead created and sustained across selected intervention communities in the Communes of Ayorou, Anzourou, Gotheye and Dargol. Security restrictions and losing the responsible implementing partner limited the potential outreach of this stream of activities.

Benefits from the use of credit for marginalized groups

The three types of benefits that were identified by the workshop participants in relation to access to credit systems were: 1) diversification of livelihoods, 2) purchase of livelihood assets and 3) food security.

Regarding livelihood diversification, project participants were able to buy seeds from warrantage credits or VSLA groups especially for millet, cowpea and sorghum. Farmers from communities of Firgnaré and Toko Binkani testified the ability to increase their purchasing power by 20% with 5 kg of improved seeds. VSLA credits also increased the ability of women to trade high-value rural products such as okra, sesame and peanut seeds and to initiate gardening initiatives in order to compensate for the food deficits at the household level. The sustainability of these interventions is closely linked to the long-term use of improved seeds through Warrantage and VSLA credits to improve agricultural services and stocks in cereal banks. Similarly, individual interviewees have validated the benefits of having access to credit systems, by stating the stabilisation of (or access to better) prices in the market, securing small ruminants and livestock increase, increased financial capital to respond to social and household needs (school and health related fees, family events) and general improvement of commercial activity in the communities.

Accessing credits contributed to the building of productive assets, mainly through the fattening of small ruminants. The profit from improved livestock led various households to develop new income generating activities for example: production and sale of juice, extraction of oil for soaps and ointment making, sewing and small trade. Implementing partners during the final evaluation workshop reported of individual cases profiting from credit systems to the extent of increasing their livestock base. This is a

[9] Millet, Cowpeas, Sorghum, Peanut, Sesame, etc.

[10] Baobab, Moringa, Casia Tora, Fakou, Warow

qualitative indication of the virtuous relationship between livestock and rural products, which underlines a longer-term return of investment across a wide range of livelihood sources.

Benefits on Income

To complement the findings from the workshop, monitoring data pertaining reported values for income and use of credit allows for an inferential model to study whether income growth can be explained by active engagement in a credit system. The explanatory variables presented in the regression table 1 are considering whether the respondent's gender, whether is a VSLA member, used warrantage, accessed financial services and credit. The results of this multi-variate regression model are described below:

Regression Table 1: Individual income explained by credit systems

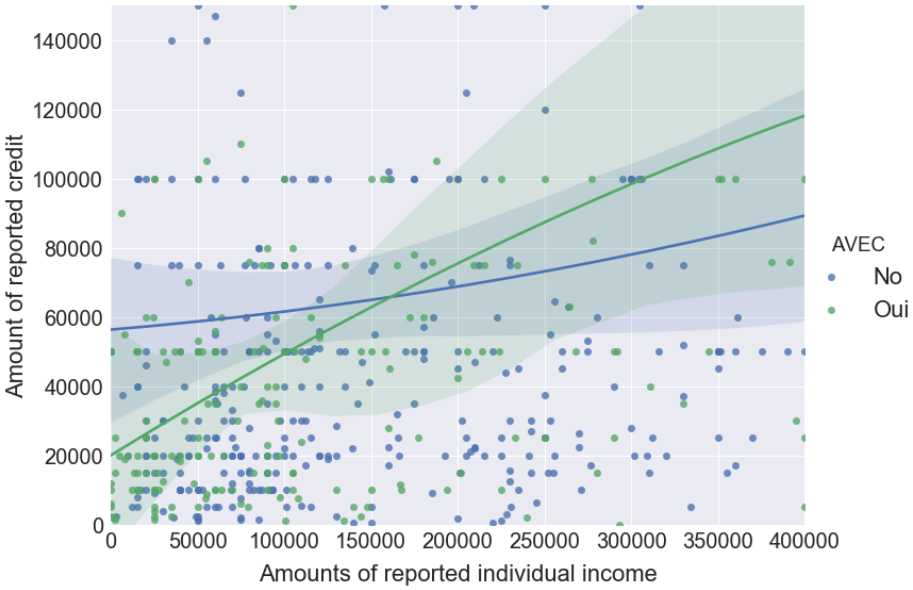
Dep. Variable:	Individual Income	No. Observations:	578
Model:	GEE	No. clusters:	3
Method:	Generalized Estimating Equations	Min. cluster size:	51
		Max. cluster size:	299
Family:	Gaussian	Mean cluster size:	192.7
Dependence structure:	Independence	Num. iterations:	5
Date:	Thu, 25 Jan 2018	Scale:	38625511537.531

	coef	std err	z	P>|z|	[0.025	0.975]
Intercept	9.067e+04	1.21e+04	7.466	0.000	6.69e+04	1.14e+05
Member of AVEC	-1.056e+04	1.02e+04	-1.031	0.302	-3.06e+04	9510.120
Accessed Financial Services	4.722e+04	1.72e+04	2.744	0.006	1.35e+04	8.09e+04
Using warrantage	1.142e+05	3.36e+04	3.395	0.001	4.83e+04	1.8e+05
Gender[T.M]	8.545e+04	6149.069	13.897	0.000	7.34e+04	9.75e+04
Amount Credit	0.4094	0.191	2.145	0.032	0.035	0.783

Skew:	3.7058	Kurtosis:	21.2729
Centered skew:	3.5188	Centered kurtosis:	20.1073

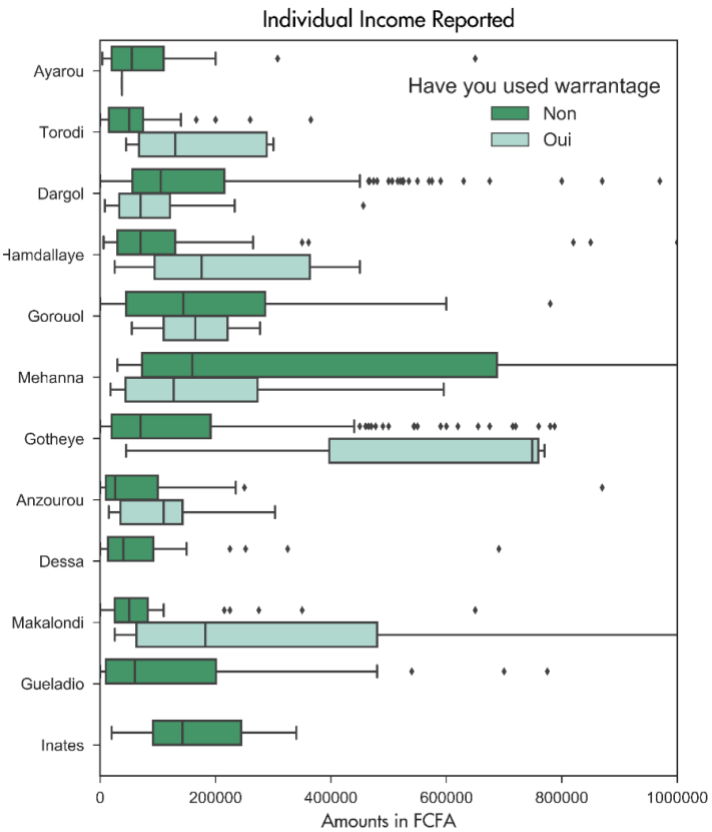
The result indicates that the coefficients of some variables are statistically significant at 95% confidence interval. Access to financial services, warrantage and credit are income accelerators. Gender also shows a significant relationship with income, male respondents reported greater values than women. The model responds to the expectations of the project, targeted communities experienced income growth were credit systems were reinforced. VSLA membership did not prove to be inferentially relevant for this estimation. Yet, if to analyse the magnitude of income and credit increase between VSLA members and non-members a strong correlation emerges like shown in Graph 19.

Graph 19: Correlation plotting for relationship between VSLA, credit and income



The relationship between reported income and reported credit amounts is positively correlated, the more people earn, the higher the credit amounts they borrow. When drawing a visual distinction between VSLA/AVEC and non-VSLA/AVEC members, the relationship seems to stronger for the former group. Even though VSLA members belong to lower income brackets, their likelihood of income acceleration is greater. To further understand the relationship between reported income and credit systems, Graph 20 shows income distribution across Communes by considering two sub-groups: respondents who used warrantage and non-users.

Graph 20: Relationship reported income and use of warrantage



The income difference between users and non-users is quite striking in some Communes, particularly in Gotheye and Makalondi. Among community members reporting use of warrantage, their income values tend to be higher, proving once again that credit systems supported by PRESENCES impacted income.

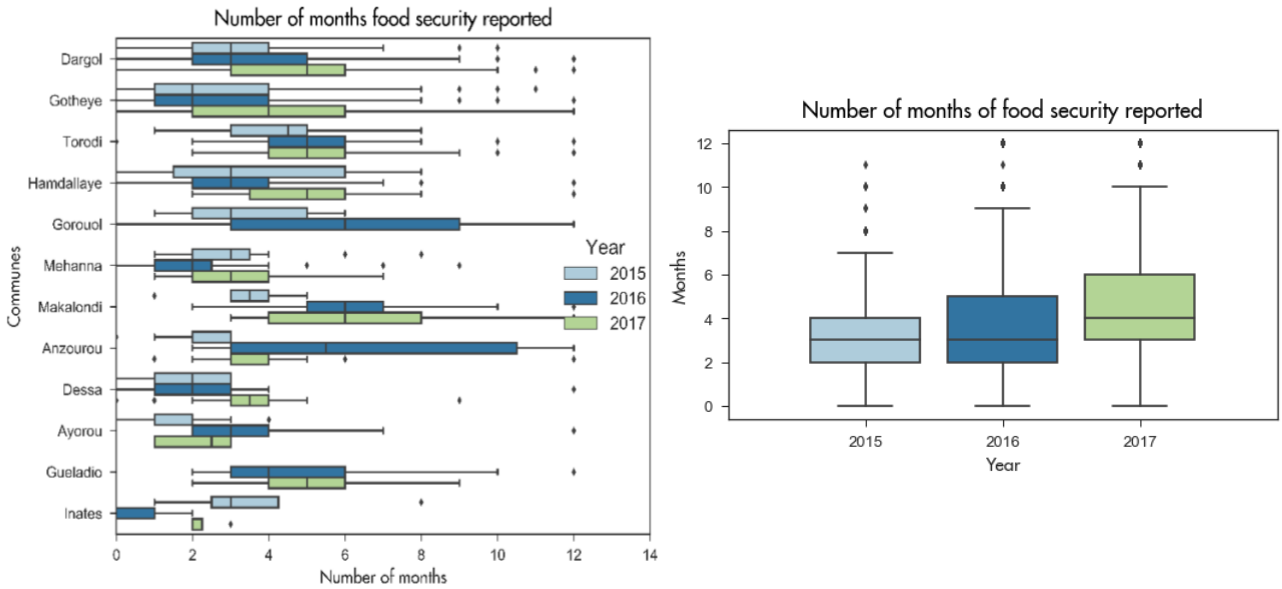
Benefits on food security

Access to credit systems through PRESENCES was critical to enhance food security and nutrition in Tillabéri region. Improved seeds distributed to poor and vulnerable households were both a source of food (millet, cowpeas, sesame) and money (selling sesame, cowpea and its by-products namely tops and oil). Implementing partners indicated that thanks to the warrantage, the communities are now managing to keep the surplus of their agricultural production for 4 to 5 months whereas before it was sold at a lower price. As a result, the claim that credit systems increase the availability of food and seeds during the lean season is based on the logic that warrantage facilities provide the means for communities to benefit from warranted goods to meet financial needs at the household level or to use as production inputs (seeds, food for field work etc.).

From a nutritional perspective, field observations from the implementing partners highlight how credit systems led to the diffusion of highly nutritious food types such as moringa and baobab leaves that are widely used in the preparation of meals, especially during the lean season. These green leaves are rich in vitamin A and iron and can be consumed fresh or dried. This practice is observed in communities for the recovery of malnourished children for the treatment of ulcers, hypertension and diabetes. It should be noted that before PRESENCES, implementing partners reported it was almost impossible to find this type of green leaves.

Along with evidence shared from the implementing partners, monitoring evidence on reported months of food security confirms the upward trend. The following graph provides a visual explanation on distribution on any intra-regional variance at the Commune level.

Graph 21: Food security across Commune



Across Communes, the general trend over the years is an increase of the number of months reported to cover food needs at the household level. Respondents in Makalondi and Gotheye experienced the greatest variation. In the same locations, warrantage users reported the most significant income values. The trend is confirmed in Graph 21 by deriving yearly estimates for each year of project's implementation.

The average number of months respondents reported food security increased from 3 in 2015 to 4 in 2017. This result can be correlated with access to credit systems, as they represent income accelerators and it is reasonable to assume that a greater ability to spend and trade are causal drivers for food security.

Link between Activities and Results

Credit systems targeted by PRESENCES represented income accelerators at the household level, and food security trends seem correlated to areas of the intervention with greater credit systems support.

6.4.9. What are the user investment decisions taken considering market trends and climate shocks?

The investment decisions that were observed in the target areas considering market trends and climate shocks are:

1) During a deficient year of production, communities prioritize the purchase of corn instead of relatively more expensive millet on the market
2) Fluctuating prices of non-timber forest products are guiding women to make different choices for the type of income generating strategy to adopt (e.g. purchase of baobab leaves before the first rains) and for the supply period
3) The prospect of high demand for sheep as Eid approaches guides the decision in sheep farming
4) For value addition of rural products, the choice of what to transform is based on the availability of raw materials and market demand
5) Cereal banks committees take decisions about what to stock based on goods' availability within communities and at local markets

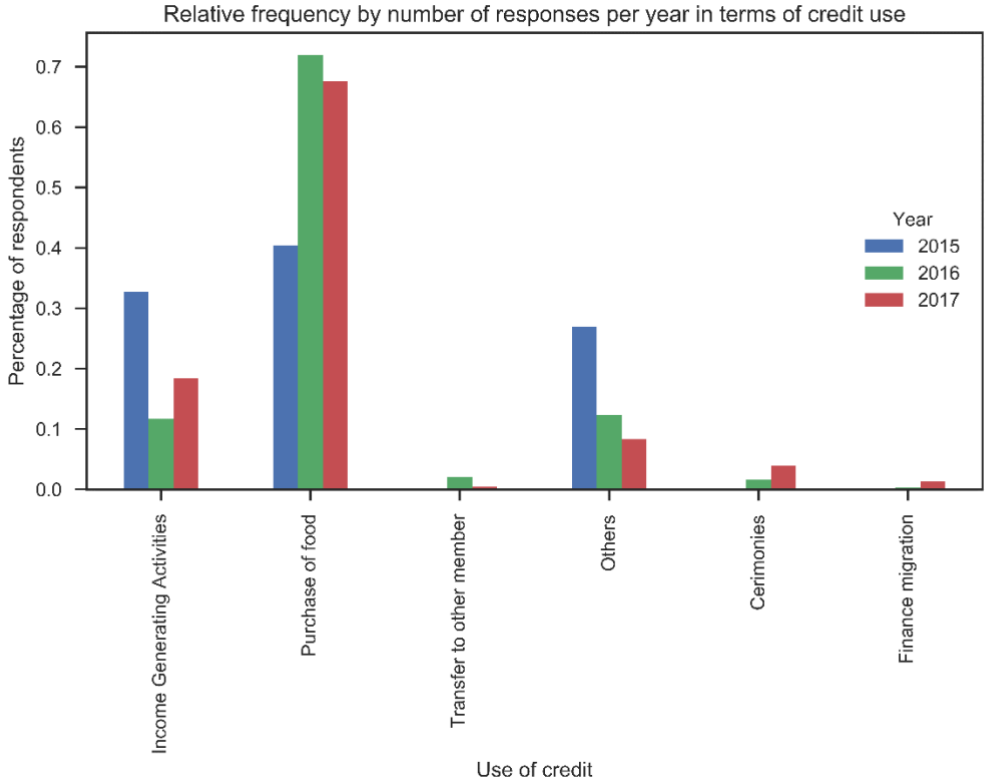
Accessing credit strengthened specific investment decisions that were observed to yield most returns in the Tillabéri region, specifically: marketing / processing of agrosilvopastoral[11] products; fattening of sheep and cattle, household gardens and braiding mats.
The uptake of agrosilvopastoral products was possible thanks to the availability of accessible resources and local skills, even among vulnerable groups. In addition, a combined approach in using the land is suitable to diversify activities in view of climate shocks.

In relation to vegetable gardening, the availability of water resources along the Niger's river needed for rainfed cultures and proximity to Niamey enabled this livelihood choice to be reinforced.
The existence of livestock adapted to the environmental context; availability of fodder and market demand were the major drivers behind an increased investment in reinforcing livestock.
The production of mats was another area of investment through credit systems thanks to the availability of local resources and skills, though the in-flow of plastic products represents a threat for this source of livelihood.

From the monitoring evidence perspective, as shown in Graph 22A, most people reported the use of credit for food needs and the same pattern was found every year. The second most reported answer was the use of credit amounts to strengthen income generating activities. Though, a relationship between credit amounts and income generation exists, it does not seem to be the primary purpose of credit use and it demonstrates how much food needs and consumption smoothing remain the most important priority for most respondents. Nonetheless, the graph does not explain all possible avenues to ensure greater food security and it seems from other evidence shown in this report that a significant amount of households adopted more diversified livelihood strategies over time thanks to climate information and other credit mechanisms other than individual borrowing from financial institutions.

[11] By definition, agrosilvopastoral systems (ASPS) is a collective name for land-use systems, implying the combination or deliberate association of a woody component (trees or shrubs) with cattle in the same site.

Graph 22A: Use of credit



In addition to what reported during the final validation workshop and monitoring evidence, data from the resilience diaries[12] was also analysed in a way to represent key topics and related terms emerging from qualitative evidence shared by respondents, who were tracked longitudinally for over one year. The word processing technique shown in Graph 22B enabled the identification of a sequence of key words that can lead to intuitively infer the content of a topic with the greatest number of relatable terms. What can be derived from the graph is VSLA members used improved seeds as a common vehicle to grant or obtain credit from the group. It also confirms that the use of credit amounts from VSLA members was mainly dedicated to address food needs and to some degree income generating activities.

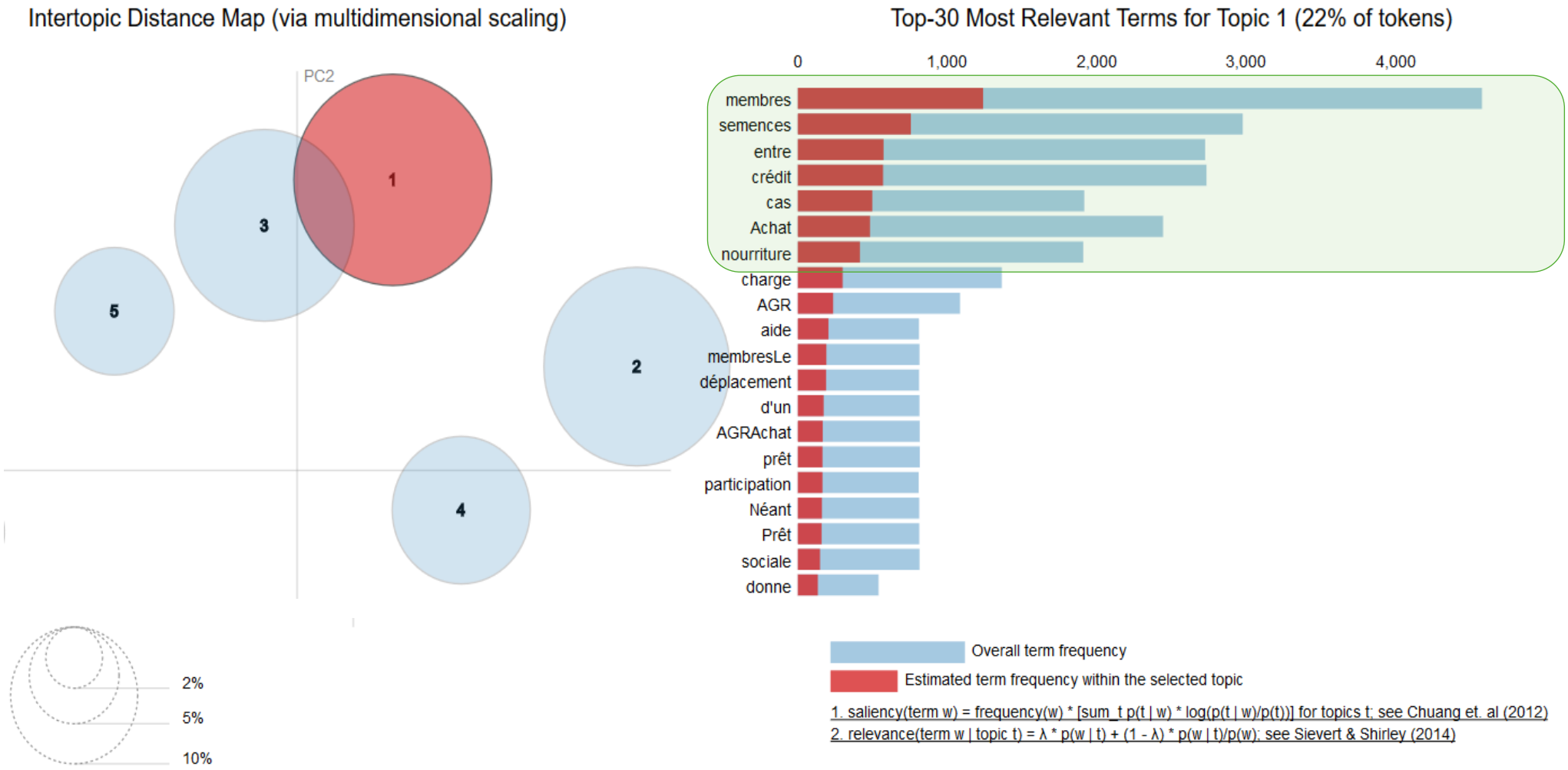
It is likely that accessing improved seeds and climate information influenced investment behaviours of VSLA members, though there are additional explanatory factors from PRESENCES contribution such as livelihood support. The qualitative evidence highlights how complex it becomes to structure a linear causation to explain use of credit since climate and market information have multiple applications beyond investment patterns, even though there are clear indications of its use in making financial decisions.

Link between Activities and Results

PRESENCES provided both climate and market information and there is qualitative evidence indicating VSLA as a platform to exchange both, especially in relation to draught-resistant seeds.

[12] https://www.weadapt.org/sites/weadapt.org/files/2017/september/11637_0.pdf

Graph 22B: How did you use your credit from VSLA groups?



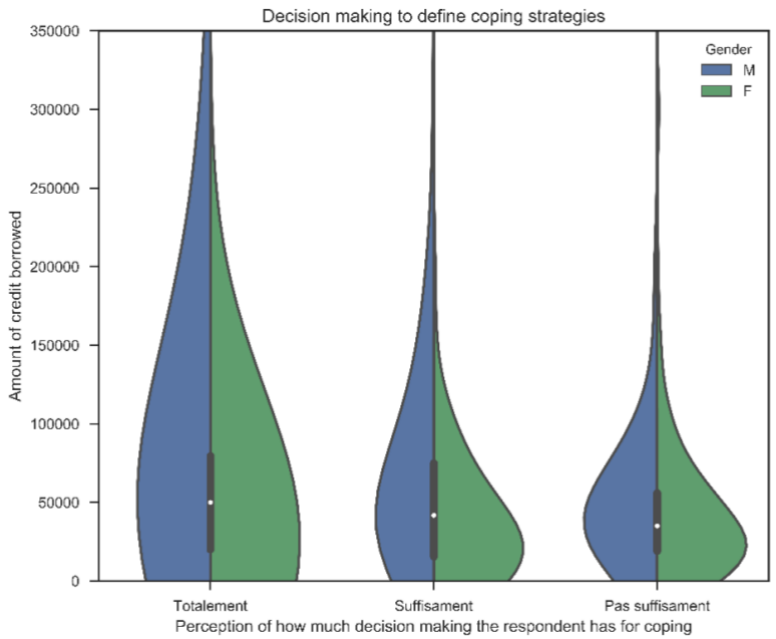
6.4.10. Are people more resilient because they are accessing credit to diversify their livelihood options or to remain more food-secured?

From the implementing partners perspective, access to credit links to food security and livelihood simultaneously. The relationships that explain how credit systems were linked through PRESENCES to food and livelihood enhancement are:

- The work of the SCAP / RU in monitoring cereal prices made possible to decide about when to stock and de-stock in cereal banks and warrantage facilities
- The equipment and training of groups in using processing machines raised women's income through the sale of transformed products
- The warrantage of non-timber forest products increased their value and enabled households to earn more consistent income to meet household expenses;
- The warrantage and fattening of animals led to more household income for VSLA activities;
- The rearing of small ruminants through habbanaye provided for organic manure used in vegetable gardens and bio-digesters;
- The use of manure from habbanaye enhanced agricultural production of improved seeds and greater stocks in cereal banks and warrantage
- The purchase of animals from the Habbanaye enabled farmers to have financial resources for the purchase of livestock feed and zootechnical products;
- The use of improved seeds led to an increase in production of dry fodder to feed livestock

This combination of these factors led target population to be more equipped and able to cope with chronic stressors. Monitoring evidence confirms this finding in Graph 23, where the perception of greater decision-making power clearly correlates with the amount of credit borrowed for both genders.

Graph 23 : Decision making correlation with access to credit



The distribution of reported values for credit is spread towards higher amounts when self-perception of coping decision making is stronger. Financial inclusion is a determinant of investment propensity and this finding shows that access to credit intensify the likelihood of individuals to better represent their personal interests in resilience strategies decided at the household and community levels.

Link between Activities and Results

By supporting credit systems, PRESENCES created a link between livelihood and food security, both dimensions are embedded when measuring resilience. The value of reported credit amounts positively correlates with people's ability to assert their personal interest when responding to chronic stressors.

6.4.11. What risks were encountered in the credit systems that could reduce resilience-building?

An adequate risk analysis on this subject was missing in this project. Therefore, during the last workshop for this evaluation, the implementing partners shared a series of mitigation measures taken to render cereal banks, VLSA and warrantage more effective and inclusive:

- By ensuring the availability and accessibility of cereals during deficient season
- By further improving the governance mechanisms of the cereal banks, especially concerning roles and accountability of members in the management committees
- By addressing the power structures underpinning control of resources and the perception of what kind of responsibility the village chief held in managing public goods
- By adequately protecting classes of high vulnerability due to their limited surplus of production to engage in warrantage in a sufficient manner
- By monitoring the fluctuation of grain prices in the market to determine the exact periods of recovery of stocks and peaks of sales
- By tracking the vulnerability of women in relation to their access and control of production and their presence in decision-making bodies of small rural businesses
- By triggering full participation of younger women in VSLA across other credit systems

PRESENCES leveraged on a set of these strategies to mitigate risks within credit systems, but structural issues remain for adequate monitoring of vulnerabilities and power structures at the institutional governance and implementing partner levels.

Available evidence points out at the existence of cereal banks at the community level before the project. They represented the entry point to deliver support to their governance structures more effectively. Similarly, the existence of VSLA groups affiliated with producers facilitated the linkage with warrantage activities. A needs-based approach was adopted since cereal banks were advised to sell stocks in small quantities thus facilitating access to vulnerable groups. In some other cases, the project facilitated the improvement of warrantage stores to increase their capacity for larger stock investment from individuals. Yet, there is no evidence the underlying issues about power structures in decision-making have significantly changed in favour of the most vulnerable groups.

Other challenges related to warrantage and cereal banks mentioned during the individual stakeholder discussions were related to the risk of securing and managing the funds collected, and the need to maintain adequate capacity at community level, in order to ensure proper functioning of the management committees, given the high levels of illiteracy in the population.

Link between Activities and Results

PRESENCES mitigated the risk of unreliable credit mechanisms by supporting the governance structures of cereal banks and warrantage committees. Their better functioning led to financial returns across targeted Communes and greater propensity to invest/borrow.

6.5. Cross-cutting themes

6.5.1. Gender

Women's empowerment and gender equality are cross-cutting issues that underpin strongly CARE's approach in programming. PRESENCES also committed to a distinctive gender-sensitive approach and focus on women, taking into account the particular context of Niger and the cultural and social norms in Tillabéry region.

In terms of contextual norms around gender, the baseline study identified that:

- Rural women have few opportunities in the implementation of development activities
- Strong migration of young people makes women to form the majority in certain villages; they carry out all households' tasks and in addition manage the village's development actions. Women leaders, and particularly elected women serve as an example to act on social stereotypes that keep women in the domestic sphere.
- Restrictions on women in terms of inheritance, combined with cultural and social norms and their high illiteracy rates limit women's ability to meet their needs and those of their families.
- Fewer women than men have access to weather forecasts, probably due to less access to sources of information.

A gender study[13] produced by CARE in the scope of BRACED-PRESENCES indicates that women are to a degree restricted in the decision-making of their labour and income generating activities, while this also depends on their age and the type of activity. For instance, in terms of agricultural production, women are dependent on their spouses even though they are fairly autonomous to select the variety of seeds they cultivate (as long as it socially acceptable). As an example, the cultivation of sesame, peanut, groundnut, okra is usually more likely to be 'owned' by women.

In regard to livestock breeding, women have the capacity and choice to breed animals, but they largely need to consult their husband while the reverse is not the case. The study claims that women members of village groups (such as VSLAs) have greater agricultural choice as their financial capacity and access to quality seeds (cowpea and sesame) are higher than non-members in the community. Also, the credit and savings group provide the opportunity to women to save and later invest on IGAs or the practice of *embouche*,[14] and generally places them in a better position in terms of being part of household decision making. According to the study, a social reality of the communities is that young newly-married women are not active in the space of IGAs as they need to be primarily in the 'service' of their spouse; IGAs are practiced by older women that have 4-5 children already. Overall, the participation of women in the credit and savings groups is seen to reinforce their economic capacity and their role in the community, since they gain responsibility, decision-making roles and autonomy in the management of Cereal Banks and VSLAs.

Evidence from interviews with key informants confirm that women's role and capacity building have been an important element of PRESENCES. Women are empowered through owning assets, VSLA trainings and participation in community planning. The project was therefore deemed gender-sensitive, particularly in regard to the credit systems package, which involves the Cereal Banks and VSLAs. The affirming statements range from a milder 'balanced gender approach' or 'a project that benefits all' to women's increased autonomy and empowerment. The visual representation below attempts to capture the range of views from the KIIs analysis:

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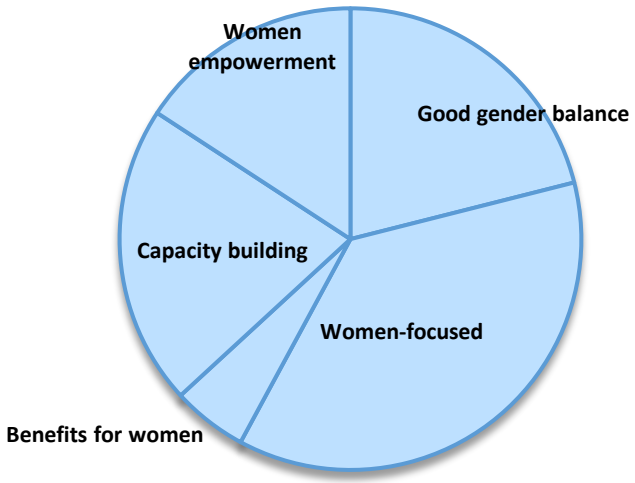
[13] Diarra M., 2016: "Participation équitable aux espaces de prises de décisions et renforcement de la résilience dans la zone de BRACED-PRESENCES, région de Tillabéry". The study targeted the communes of Hamdallaye, Gueladio, Makalondi, Ayorou.

[14] A practice of animal fattening.

Figure 2: Gender affirmation views on PRESENCES (source: KIIs)



[*Key informant quote on climate information systems*]
"In terms of engaging women… This was not of interest to the women in the beginning. Since we started, they now are concerned... An improvement in the participation of women when the climate information is shared as their domestic activities may be influenced (and also their husbands planning that depends on it)."

Yet, there is little or unclear focus on women's financial literacy and property rights as part of a programme strategy or national plan. The positive contribution of BRACED in increasing women's skills and livestock property cannot be generalised but should be acknowledged at least concerning early signs of change. According to stakeholders' testimonies women have diversified their sources of income and they have gained respect in the community as their participation in village groups and communal development plans was growing.

Another quote from a key informant:
"Women [gained] autonomy, [the project] gave them power in their household and in their community …BRACED has allowed this significant development of acknowledging women in their household and community; women are more attended, consulted and respected. The VSLA is a guarantee for the women, an aid that allows them to develop and to be empowered.**"**

The effects of climate information on women did not come out strongly but rather through individual statements. There is most likely a spill-over effect on the impact of climate information on women's involvement and decision making around agriculture and livestock activities, but there is yet no evidence to suggest direct links; therefore, a consideration for future programming in this or similar context.

Link between Activities and Results

A distinctive gender lens of the project is mostly evident in the functioning of credit and savings systems. Signs of women empowerment are apparent but women's involvement in climate information

systems could be strengthened, as well as considering and addressing cultural norms on literacy and property rights.

6.5.2. Institutional engagement

Institutional engagement was at the heart of the project in terms of reinforcing capacities in existing structures and building sustainable systems that would see lasting effects beyond the project duration. This was more relevant in the Climate Information learning package due to the involvement of Technical Services and national and local level actors (DMN, municipalities etc.).

The KIIs have resulted in the following 'trends' of information:

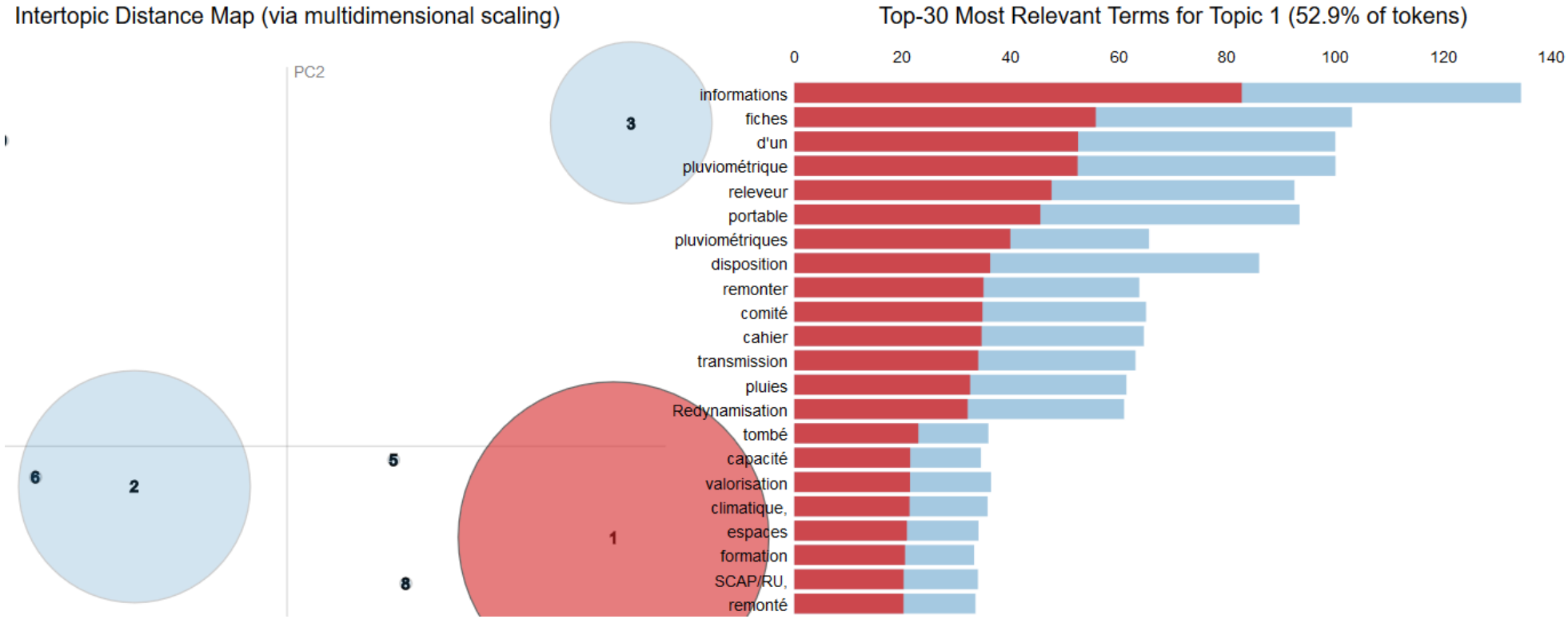
- The biggest contribution of BRACED-PRESENCES was on capacity building (trainings) and financial support (transport fees, per diem of staff) to enable systems to work.
- Individual cases of a person's increased engagement with the project activities had a significant impact on the effectiveness of the activities, the community engagement and the likelihood of sustainability (such as the example of Hamdallaye municipality).
- The project mobilised different actors and governmental roles at the local level.
- Despite the institutional engagement, some communes lack the means and willingness to take over.

Figure 3: A 'word cloud':[15] Description of PRESENCES processes and institutional engagement of climate information systems (source: KIIs).

[15] http://voyant-tools.org

Table 24: Provisions / actions taken by your institution under environmental protection laws and policies to regulate natural resource management

Monitoring information from 116 institutional stakeholders collected over the past 3 years indicate a strong pattern in favour of regulatory frameworks or



initiatives that bring climate information at the centre of institutional resilience-sensitive investments. A theme that links to mobile technology in measuring rainfall and other weather information and relate to how climate information is transmitted to other governance bodies, notably to OSV. Other terms emerging from the most relevant terms in Topic 1 of Table 24 relate to capacity building and trainings to strengthen the interface between communities and institutional representatives. This type of evidence explains qualitatively the importance of climate information transmission since donors and national authorities act upon SCAP/RU evidence of climate shocks.

6.6. Value for Money

The following sections provide a tentative estimation of Value for Money indicators since some indicators were mapped to costs. Yet, the analysis leverages on assumptions that have not been benchmarked to similar projects therefore its comparability might be limited. Nonetheless, the VfM analysis represents a series of suggestions on how to link financial with results data, which is along the same logic of linking activities information (what was done) with outcomes (what has been achieved). The importance of linking these types of data both in numerical and qualitative forms compels the evaluation team to propose some tentative cost-efficiency and cost-effectiveness estimations.

6.6.1. Economy

Economy was measured by considering macro-categories of costs and their relationships as outlined in the following table. The spending structure provides an initial insight of where PRESENCES team focused most efforts in financial terms.

Table 25: Cost analysis of last budget figures accessed

Agreed Budget Headings	Total Program Budget	Tot expenditure to Q3_17	% per category
Improved relevance, access to and use of climate information services, planning and risk management for climate change adaptation and disaster risk reduction	£251,883	£197,040	6.4%
Poor and vulnerable women and men are benefitting from sustainable and climate-resilient livelihood options.	£559,227	£436,546	14.2%
Governance systems and structures at local, national and regional levels support equitable, sustainable and climate-resilient management of natural resources	£132,974	£100,665	3.3%
Loan capital	£0	£0	0.0%
Personnel (Direct)	£1,113,110	£953,836	30.9%
Personnel support (Indirect)	£420,480	£350,834	11.4%
Monitoring & evaluation	£171,793	£111,882	3.6%
Knowledge management & lesson learning	£219,323	£184,758	6.0%
Training & capacity building	£31,102	£12,275	0.4%
Capital items (Indirect)	£144,850	£136,827	4.4%
Office rental & supplies (Indirect)	£41,360	£38,754	1.3%
Logistics & travel	£375,835	£331,214	10.7%
Administrative overhead (8%: Indirect)	£276,955	£227,732	7.4%
Direct Costs	£2,855,247	£2,328,217	75.5%
Indirect Costs	£883,644	£754,147	24.5%
Total Sums	£3,738,891	£3,082,364	100.0%

It seems that Output 2, comprising of all activities focused on building resilient livelihoods, was the area with most resulted spending, while output three was the one with least expenditures. In terms of categories, the project spent mainly on personnel both directly and indirectly.

Output-specific expenditures do not link to other categories, so we assume the personnel and other expenditures were spread evenly across the three output areas. The two key dimensions to further consider regarding economy are: the identification of key costs for each output area and the overall estimation of a direct vs. indirect cost ratio that can inform future programmes.

1. Identification of key costs

By considering current spending to date, the four most important cost items described in the following table correspond to particular activities traced to specific categories of costs. The proposed unit cost does not include a series of other personnel and indirect expenditures since the latter were not linked to specific output categories. Nonetheless, it is worth identifying the most relevant cost categories to further inform future financial benchmarks based on total number of activities delivered.

Table 24: Main individual costs traced to outputs

Top 5 budget items from output areas	Partner	Net Unit costs	Number of units	Unit	BUDGET (£)	Adjusted (£)
In output 2: VSLAs integrating various trainings and capacity building processes	CARE	£24.17	**1732**	Members	£41,859.72	£73,748.01
In output 2: Support to the sustainable development committees of water point	CARE	£87.19	**310**	Water committees	£27,030.06	£47,621.27
In output 3: Training of Commune Agents	Tree Aid	£146.69	**189**	Trainings	£27,725.33	£48,846.19
In output 1: Carry out CVCAs in all the project sites	CARE	£13.23	**1330**	Number of CVCAs	£17,596.70	£31,001.68

The most relevant activity costs linked to output areas pertain to the setup of VSLA groups, facilitation of CVCAs, reinforcement of water committees and training to Commune agents. The cost per CVCA carried across project areas is the lowest compared to other key costs, which indicates the potential scalability of this activity without incurring into significant budget increases. The adjusted value considers the incidence of other costs in the project but, because the estimation is not conclusive, the unit cost only considers expenditures that directly links to a specified output area.

2. Ratio of direct vs. indirect cots

The main estimate of economy for this study is considered as the ratio of direct vs. indirect costs, interpreted as a measure to explain how much financial inputs were directly involved in implementation

Ratio of direct versus indirect costs	**3.08:1** (1 £ of indirect for £3.08 of direct costs) The value is derived by dividing the percentages of direct and indirect costs.

For PRESENCES, indirect costs are an estimated 25.5% of the total budget. Put it differently, for every £3 spent on direct implementation, 1£ is spent on indirect cost categories. The value is moderately high yet, the geographic spread of the intervention required additional resources to ensure intensive outreach in area of difficult access and with limited transportation facilities.

6.6.2. Efficiency

Efficiency is appraised in relation to key activity costs based on number of activities conducted divided by total expenditure per output. For PRESENCES, the evaluation team identified in the following table the most relevant activities from a budgetary perspective by considering how much a certain input was delivered in relative terms to all other inputs for each output area. The link is partially defined in PRESENCES. To address this gap, the adjustment of costs for reported outreach mainly relies on the assumption indirect and non-specified costs were evenly distributed across the three output areas.

3. Key activity costs and output value

Activities most spent on	Output Area	How much delivered	As a % of tot activities per output	Est. output cost per activity	Adjusted cost per activity
CVCA/ PACA	Output 1	**1330**	36.7%	£ 160,255.3	£282,336.09

Local accords for natural resource management	Output 3	**217**	24.7%	£ 107,648.0	£189,653.11
Training VSLA agents	Output 2	**1321**	10.7%	£ 46,600.1	£82,099.56
Training natural resource conservation and regeneration	Output 2	**1222**	9.9%	£ 43,107.7	£75,946.69
Natural resource management trainings at institutional level	Output 3	**189**	21.5%	£ 42,318.9	£74,556.99

From the proposed table, the key activities that represented the largest proportion of expenditures per output are: CVCA/PACA for output 1, VSLA and natural resources conservation trainings for output 2 and natural resource management at the institutional level for output 3. These activities are the ones to consider as the most relevant to explain output results, more specifically the KPI1 indicator which focused on outreach across the 3 output areas.

4. Cost-efficiency ratio

With information on main costs and outreach distribution (KPI1), it is possible to extract estimates for cost-efficiency. The three-metrics considered are disaggregation of KPI1 by gender, total spent/the type of target individual and a disaggregation of cost-efficiency estimates per Commune.

Key Value for Money metrics	Results	
Understanding of outreach KPI 1 Final Measurement	• Targeted High Intensity Women: 14,368 • Targeted High Intensity Men: 15,371 • Targeted Medium Intensity Total: 86,016 • Considering diffusion of climate info by radio the total indirect outreach is estimated to be: 442,577	
Cost-efficiency ratio: (direct costs + indirect costs)/total number of KPI1	= Total Spent (£3,082,363)/KPI1 Direct High intensity=£103.64 = Total Spent (£3,082,363)/KPI1 Direct Medium intensity= £35.83 = Total Spent (£3,082,363)/KPI1 Indirect outreach= £6.96 **Average KPI1 outreach=£48.81 per unit of outreach**	
Cost-efficiency ratio per Commune- steps: • Average Spent per Commune= All spent/Number of Communes • Average Spent per Commune/Total targeted population per Commune The assumption that spent was distributed evenly across all Communes is to be validated.	Anzourou	£45.68
	Ayorou	£49.25
	Dargol	£14.58
	Dessa	£58.52
	Gorouol	£20.53
	Gotheye	£28.40
	Gueladio	£47.12
	Hamdallaye	£24.68
	Inatès	£62.09
	Makalondi	£29.20
	Mehenna	£35.53
	Torodi	£12.71

6.6.3. Effectiveness

Key Value for Money metrics	Results
Cost effectiveness ratio: a) A combination of recurrent data of changes	For **£48.81** per reached individual: • The incidence of individual severe hunger strategies reduced by **70%**

in benefit indicators with costs associated in achieving the main outcome; b) to place a monetary value to compare the total value of outcomes achieved against costs.	• The number of months of food self-sufficiency increased by 57.14% compared to baseline from **2.5 to 4.375 months** as median yearly value • The total **resilience score increased by 18.66%** from baseline according to the KPI4 indicator, this means individuals are more likely to adopt a resilient strategy to cope with shocks • Their savings base increased by 80%. One proxy to measure the return of investment for money invested in PRESENCES is the increase in reported savings times the size of total outreach. The baseline value was 8,451 FCFAs in 2015 while in 2017 it reached 43,090 FCFA. • The return value from this multiplication is therefore the difference between 2017 and 2015 averages of reported savings multiplied by the number of direct high target project participants 34,639CFA*29,164= **£1,368,140 (about £0.37 per pound spent)** It critical to underline that the causal validity of this last assumption remains unproven and even though the sample structure is large enough to infer numerical estimates, its representativeness is not confirmed.

Though these values remain indicative, they stem from the strongest evidence of trends for selected outcome indicators. The effectiveness of this programme and its social return of investment can be interpreted in multiple ways. In this case the three areas aligned with outcome indicators are: food security, coping strategies and retained savings. The improvement in savings, food security and coping strategies are the most remarkable expression of change for this programme.

6.6.4. Equity

Key Value for Money metrics	Results
Project participant selection criteria	Gender ratio: 51M:49F Community self-selection of recipients

The project achieved a balance between men and women in terms of outreach figures. Even though disaggregated KPI1 and KPI4 data shows that the equity criteria were fulfilled, there are programmatic gaps in terms of how other forms of vulnerabilities, for example disabled people. The targets are disaggregated per gender and between direct and indirect but not any additional criteria were taken into account in selecting and counting project participants. In fact, CARE endorsed a participatory approach of self-selection managed within communities. In this way, most of the vulnerability criteria were defined by the community themselves. This approach ensured buy-in from communities by leveraging on their internal and collective mechanisms of identification of direct recipients without much external steer.
Even though MEAL evidence was not sourced along a vulnerability scale it is a reasonable to assume that most of the target population and respondents belong to marginalised communities under chronic shocks.

7. CONCLUSIONS

7.1. Outcome and impact level changes

Coping Strategy Index	Key findings
Food Security	An overall improved food security is remarkable across all intervention areas. An improvement of almost 70% was measured in terms of frequency of negative coping strategies. Even though there might be seasonality factors explaining this change, the drop is significant and consistent across all areas
Asset Security	Like the food index, asset insecurity has also decreased significantly by almost 30%. The drop is quite consistent across areas and given the longer-term nature of asset security, it is reasonable to assume that the project contributed to a more structural change beyond meeting immediate food needs.
Resilience Indicator (KPI4)	**Key findings**
Climate information and use of improved seeds	Monitoring data shows limited changes in the way improved seeds and climate information have spread since the beginning of the project across the intervention areas. One of the reason could be the lack of sustained activities in reinforcing the diffusion and use of climate information in target Communes and other structural blockages in the supply chain for improved seeds. Key informants also underlined the latter issue.
Assets, savings systems and livelihood practices	The most remarkable changes in regard to assets relate to reported savings and the adoption of new rural practices. Both trends are strongly upwards, and they indicate how much PRESENCES reinforced livelihood systems by undertaking an integrated approach with climate information
New livelihood practices for food security	In line with assets, the diversification of livelihood activities and the number of months security also showed strong and consistent upward trends. This is a double confirmation that livelihood has experienced some degree of transformation on households' ability to reach more self-sufficiency.
Governance structures and access to natural resources (e.g. water committees)	The trends measuring the relationship between target communities and water committee have improved over time along with the general knowledge of individuals of rules underpinning the management of natural resources. Both indicators improved by over 20% and 10% respectively.
Management of conflict linked to natural resources	The greatest negative trend relates to conflict over natural resources and its management. Even though water committees have improved, the general ability of local communities to rely on local institutions to manage conflicts worsened, hence their active engagement in regulating them dropped significantly. One possible reason could be the overall deterioration of the security situation in intervention areas.

7.2. Synthesis of evidence each learning question

Climate Information	Key findings
a. What kind of information users got in an understandable fashion and used it to take	The climate information took different forms and shapes depending on whether it targeted communities, households or institutions. Most of the information was used to choose the

	which livelihood-related decisions based on type of recipient?	adequate type of crop, which also informed additional livelihood strategies meant to secure productive goods.
b.	*Did users receive information in time to take decisions?*	People are more likely to follow climate information in 2017 than 2015. Yet, the change is not very strong and about 10% more respondents would use climate information than the ones reported not using it. Importantly, the pertinence of climate information also increased and in 2017 most people than before perceived it as very relevant.
c.	*What user-focussed channels have been used to mainstreamed relevant information by the government and what is the potential for can the EWG/SCAP-RU system to be further strengthened?*	The project mainly focused on the link between SCAP/RU within communities and OSV at the Commune level. The potential to further strengthen how data flows from communities to Communes is significant, especially by introducing IT-enabled solutions. Key informants revealed how transformative PRESENCES was in this regard. The higher-level links between OSV and regional responses were not targeted as extensively, and limited evidence shows any change in that respect.
d.	*Were certain communication channels more important than others and did they change over the course of the project?*	Most respondents indicated radio channels as the most recurrent source of information. The estimated reach of radio programmes is over 300,000 people, albeit the sustainability of this information sharing modality is not ensured. Evidence also indicates that a strong engagement at the community-level remains and community groups remain the second most important channel to receive information.
e.	*What limitations were encountered in the climate information systems that could reduce the impact on resilience?*	Lack of funding strategy to support the sustainability of radio stations could slow down the rate of dissemination of climate information. If the radio channel is the most effective in terms of outreach, there should have been a better tailored exit strategy.
Credit System		**Key findings**
f.	*What types of credit systems were employed in PRESENCES and where?*	AVEC/VSLA, Warrantage and Cereal Banks are the main credit systems supported by PRESENCES. Where PRESENCES implemented a reinforcement of credit systems, target communities showed more keenness to borrow and re-invest in increased production.
g.	*Did people see the PHASE cash-for-work intervention as a form of credit system?*	PHASE cash-for-work presented a positive correlation with general trends of credit amounts reported in selected areas. The use of cash-for-work was reported to be focused on adaptive livelihoods and behaviours but given its short-term nature it did not sustain significant livelihood transformation.
h.	*What leads to credit system functioning and how do they support the most marginalised beyond the intervention in terms of income generation?*	Credit systems supported by PRESENCES were targeted to low-income households and are meant to address their livelihood needs. In the areas where PRESENCES did support credit systems, evidence shows how it enabled an income acceleration at the household level. For instance, savings amounts increased by over 60% in targeted areas and it is likely that credit system provided an avenue to speed this growth. The effect of credit systems also showed a positive correlation with food security trends, under the form of number of months a household can secure food-stock.

i. What are the user investment decisions taken considering market trends and climate shocks?	PRESENCES provided both climate and market information and there is qualitative evidence indicating VSLA as a platform to exchange both, especially in relation to drought-resistant seeds. In addition, key informants reported that a lot of livelihood decisions were influenced by new sets of climate information and market linkages facilitated by credit systems.
j. Are people more resilient because they are accessing credit to diversify their livelihood options or to remain more food-secured?	By supporting credit systems, PRESENCES created a link between livelihood and food security, both dimensions are embedded when measuring resilience and the key resilience sub-indicators (in KPI4) shows upward trends in both areas. In addition, the value of reported credit amounts positively correlates with people's ability to assert their personal interest when responding to chronic stressors. There might be a series of other explanatory factors to consider but it is reasonable to assume that financial independence corresponds to greater space in decision-making at both the household and community levels.
k. What risks were encountered that could reduce resilience-building through this system?	PRESENCES mitigated the risk of unreliable credit mechanisms by supporting the governance structures of cereal banks and warrantage committees. Their better functioning resulted to greater access from selected communities and to greater financial returns and propensity to invest/borrow. The relationship between these variables are confirmed from descriptive evidence, which size is sufficiently strong to claim PRESENCES contribution.

8. RECOMMENDATIONS

8.1. Design

The design process of this programme experienced some initial difficulties since its geographical scope was requested to be re-sized quickly. Therefore, the overall buy-in on the theory of change was limited to the initial multi-country design workshop. To the re-scaling of the overall programme intervention an adaptation of the theory of change did not follow. The project ambition was based on different expectations regarding financial resources and partners management capacities hence, even though the pathway to change remained the same, the actual intervention model only led to selected areas of change. With this premise, future actions that could improve similar programmes should leverage on:

1) Adequate resources to review the programme theory and to steer structural changes in the intervention model based on evidence
2) Greater costing for monitoring staff, to ensure separation between implementation and monitoring activities
3) Link the theory of change to a problem tree when adjusting the geographical boundaries of an intervention. An in-depth context analysis is meant to support the Programme Management Unit (PMU) to identify the root causes of a measurable problem, or set of problems, and its role is to provide a solid source of evidence to track all related assumptions about external forces.
4) Ensure the recruitment of human resources from an international pool for the PMU in-country to procure sufficient skill sets required to manage complex reporting requirements.

8.2. Implementation

PRESENCES was implemented over the course of three years and spending accelerated during the second half of the project. Based on accessed financial evidence, the project spent was over 80% of the total expected amount therefore, while results data were updated to project completion. As described in

previous sections, results seemed particularly strong regarding a relationship between livelihood diversification, food security and PRESENCES implemented activities. Yet, some of the advocacy outcomes were not reached successfully at the scale envisioned at design. In fact, most of the project's focus went to the livelihood and climate information dimensions of PRESENCES causal pathway. The intervention model did not reach the same results in terms of advocacy outcomes and influence at regional and national level given its tilt in favour of strengthening local capacities and the primary links of information diffusion between communities and Communes.

The community-intensive model produced results in the short-term coping strategy index but there remain some limitations in the sustainability of the overall model without direct buy-in from a critical mass of regional/national authorities in terms of budgetary commitments in resilience-specific activities. For this reason, monitoring evidence can only indicate a trend of change from baseline to endline but not beyond it. In more details, the set of recommendations to scale up the intervention model should rely on the following actions:

1) Measure the sustainability of PRESENCES through an ex-post impact study to verify the sustainability of trends in savings and food security, outside of seasonality factors.
2) Structure a governance protocol that provides direct implementing partner support in adjusting financial and MEAL systems to align with agreed quality standards.
3) Formalise review points of monitoring evidence with the support of cost-recovered data analytics and information management specialists in-country.
4) Redefine an advocacy pathway that can link Communes to regional and national level platforms to secure enough exposure on resilient livelihood models to be facilitated through policy changes and budgetary decisions.
5) Engage in closer coordination with other stakeholders that implemented resilience-focused projects by sharing evidence on changes in adaptation, absorption and anticipation of climate shocks.

8.3. MEAL

The MEAL system in PRESENCES produced sufficient amount of information to outline trends of change of significant scale across various areas of change. Data was collected from individuals, community groups and institutions. The diversity of monitoring evidence was also supplemented by research projects like the one exploring the relationship between VSLA membership and resilience. Though the amount of data collection produced enough trends to infer the most recurrent themes of change, the data has some inherent limitations given the restriction in accessing every Commune and lack of sufficient longitudinal data. The following recommendations should be considered the next time a MEAL framework is designed for similar projects:

1) Cost for time staff only meant for monitoring instead of including the monitoring function into the role of implementation. Monitoring should be an independent activity that recurs with a certain regularity separate from implementing activities.
2) Ensure all monitoring respondents are uniquely identified to best calculate how longitudinal the dataset is. In the current sets, less than 50% of respondents were tracked more than once, thus reducing the strength of PRESENCES contribution claims.
3) Improve the time management of monitoring data collection. Given the important role of seasonality, it is critical to distribute data collection evenly across all months in a way to represent as closely as possible the distribution of output targets.

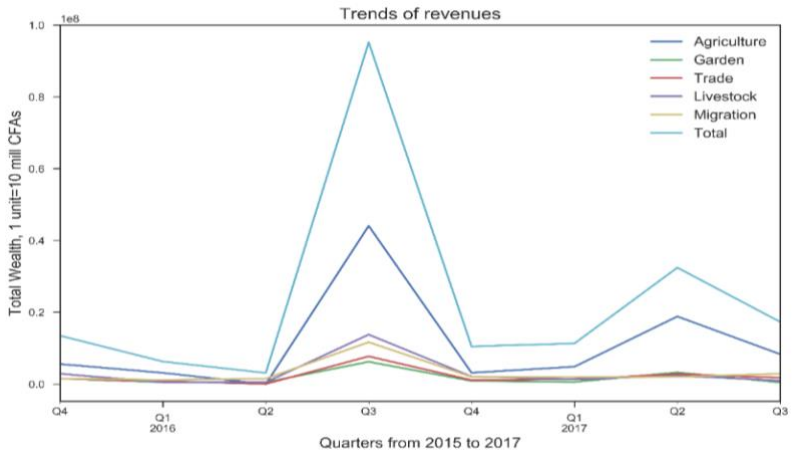
ANNEX 1: **Additional tables**

Table 1: Number of respondents in additional monitoring datasets

Count of Commune **Individual monitoring**	**2015**	**2016**	**2017**	**Grand Total**
Anzourou	14	19	13	46
Ayarou	11	14	1	26
Dargol	9	368	307	684
Dessa	23	13	16	52
Gorouol	43	32	1	76
Gotheye	86	112	155	353
Gueladio	1	71	16	88
Hamdallaye	6	37	8	51
Inates	4		2	6
Makalondi	9	35		44
Mehanna		6	33	39
Torodi		47	26	73
Grand Total (47% F, 53% M)	**206**	**754**	**578**	**1538**

Count of Commune **KPI4**	**2015**	**2016**	**2017**	**Grand Total**
Anzourou	12	12	36	60
Ayorou	11	19	14	44
Dargol	224	880	535	1639
Dessa	27	21	38	86
Gorouol	51	30		81
Gotheye	189	534	225	948
Gueladio		53	61	114
Hamdallaye	11	88	43	142
Inates	4	3	4	11
Makalondi	8	47	33	88
Mehanna	27	55	32	114
Torodi	26	88	81	195
Grand Total (50% F, 50% M)	**590**	**1830**	**1102**	**3522**

Graph 1: Trends of revenues



ANNEX 2: **Key Informant Interviews guide**

Name informant	
Position and organisation	
Date	

INFORMATION CLIMATIQUE	
1. **Utilisation** information climatique	
• (**Institutions/ Gvnt):** Quels types d'informations climatiques avez-vous utilisé grâce au projet PRESENCES ? • (**personnel**) : Avec quels systèmes d'informations climatiques étiez-vous engagés dans projet PRESENCES ?	
• Quels sont les canaux de communication des informations climatiques le plus utilisées par votre organisation ? • (Pendant combien de temps?)	
• Quels sont les défis d'utilisation ?	
• Décrire cinq exemples sur comment les informations climatiques étaient utilisées par votre organisation ?	
2. **Réception** des informations climatiques	
• Lister et décrire les canaux principaux que votre organisation a utilisés pour intégrer l'information climatique	
• Expliquer comment vous avez réagi aux Structures Communautaires d'Alerte Précoce et des Réponses aux Urgences (SCAP-RU) ?	
3. **Système** d'information climatique et **gouvernement**	
• **(staff/partenaires)** : Que conseillez-vous au gouvernement pour renforcer le système d'information climatique ? (i.e. exemples spécifiques de plaidoyer)	
• (**Institutions/ Gvnt/personnel PRESENCES**) : Quels sont les accords institutionnels réalisés au niveau de renforcer les systèmes d'informations climatiques ?	
4. **Limites** dans l'utilisation des informations climatiques	
• Quelles limites restent dans votre organisation par rapport à l'utilisation de l'information climatique	
• Comment PRESENCES vous a appuyé dans la résolution des limites que votre organisation a confronté pendant l'utilisation des information climatiques ?	
5. **Effets / impact**	
• Quels sont les changements principaux en termes de l'utilisation des informations climatiques grâce aux activités de PRESENCES ? (changements prévus / non anticipés)	
CREDIT	
6. **Utilisation** de crédit	
• Avez-vous **utilisé** ou **géré** un système de crédit provisionné à travers PRESENCES (Merci de spécifier / donner des exemples)	
7. **Fonctionnement** du système de crédit	
• Quels sont les défis les plus importants par rapport au fonctionnement du système de crédit que vous avez utilisé ou géré	

8. **Bénéfices générés** par les systèmes de crédit	
• Quels sont les caractéristiques des participants qui ont eu accès au crédit par votre organisation ?	
• Quels types des bénéfices les plus importantes avez-vous concrétisés à travers le crédit dans la population	
9. Crédit **et moyens de subsistance**	
Selon vous, comment la diversification de moyen de subsistance ensuite le crédit a augmenté la sécurité des populations ciblées par rapport à :	
▪ La sécurité alimentaire	
▪ La sécurité économique	
▪ La sécurité des biens productifs	
10. Crédit et **marchés**	
• Quels sont les types des décisions d'investissement que vous croyez soient les plus importantes dans les marchées locales (par rapport aux contextes et aux conditions réelles	
• Identifier les trois (3) activités commerciales les plus favorables et les trois (3) moins favorables dans la région de Tillabéry pour utiliser le crédit en forme productive	
11. **Effets / impact**	
• Quels sont les changements principaux en termes d'utilisation du crédit à cause des activités de PRESENCES ? (changements prévus / non anticipés)	
12. Genre	
• Comment les activités du projet se sont focalisées sur les enjeux du genre? Avez-vous constaté des exemples spécifiques?	
13. Apprentissage	
• (staff) : Qu'avez-vous appris sur la résilience grâce à la mise en place d'une infrastructure sur l'inclusion financière et l'information climatique, telle que spécifiée dans la théorie du changement?	

ANNEX 3: **Focus Group Discussions tool (CSI adapted)**

Question ID	Question	Answer
1	Informations générales	
	Nom de la Communauté où l'entrevue a eu lieu	
	Nom de la Commune	
2	Participation	
	Combien de participants à la discussion (hommes)	
	Combien de participants à la discussion (femmes)	
3	Quelle fréquence pendant la dernière semaine (de 0 à 7) Consommer des aliments moins préférés	0 1 2 3 4 5 6 7
4	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Consommer des aliments moins préférés"	
5	Quelle fréquence pendant la dernière semaine (de 0 à 7) Emprunter des vivres chez des parents, des voisins ou des amis	0 1 2 3 4 5 6 7
6	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Emprunter des vivres chez des parents, des voisins ou des amis"	
7	Quelle fréquence pendant la dernière semaine (de 0 à 7) Acheter des vivres à crédit	0 1 2 3 4 5 6 7
8	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Acheter des vivres à crédit"	
9	Quelle fréquence pendant la dernière semaine (de 0 à 7) Renoncer au paiement de dettes contractées pour acheter des vivres ?	0 1 2 3 4 5 6 7
10	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Renoncer au paiement de dettes contractées pour acheter des vivres"	
11	Quelle fréquence pendant la dernière semaine (de 0 à 7) Recours inhabituel à la consommation d'aliments de pénurie (Anza, Jigga, Agua, Guera, etc.)	0 1 2 3

		4 5 6 7
12	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Recours inhabituel à la consommation d'aliments de pénurie (Anza, Jigga, Agua, Guera, etc.)"	
13	Quelle fréquence pendant la dernière semaine (de 0 à 7) Consommer des semences pour des raisons d'insécurité alimentaire	0 1 2 3 4 5 6 7
14	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Consommer des semences pour des raisons d'insécurité alimentaire"	
15	Quelle fréquence pendant la dernière semaine (de 0 à 7) Demander à d'autres ménages de la nourriture pour les enfants	0 1 2 3 4 5 6 7
16	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Demander à d'autres ménages de la nourriture pour les enfants"	
17	Quelle fréquence pendant la dernière semaine (de 0 à 7) Que au moins un membre de votre ménage a eu recours à la mendicité (à cause de l'insécurité alimentaire)	0 1 2 3 4 5 6 7
18	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Que au moins un membre de votre ménage a eu recours à la mendicité (à cause de l'insécurité alimentaire)"	
19	Quelle fréquence pendant la dernière semaine (de 0 à 7) Diminuer la ration journalière	0 1 2 3 4 5 6 7
20	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Diminuer la ration journalière"	
21	Quelle fréquence pendant la dernière semaine (de 0 à 7) Diminuer la ration journalière pour les adultes au profit des enfants	0 1 2 3 4 5

		6 7
22	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Diminuer la ration journalière pour les adultes au profit des enfants"	
23	Quelle fréquence pendant la dernière semaine (de 0 à 7) Acheter des repas pour des raisons d'économie	0 1 2 3 4 5 6 7
24	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Acheter des repas pour des raisons d'économie"	
25	Quelle fréquence pendant la dernière semaine (de 0 à 7) Passer toute une journée sans manger	0 1 2 3 4 5 6 7
26	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Passer toute une journée sans manger"	
27	Quelle fréquence pendant la dernière semaine (de 0 à 7) Que vous-même ou un membre de votre ménage est allé au lit en ayant faim parce qu'il n'y avait pas assez de nourriture	0 1 2 3 4 5 6 7
28	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la reduction de "Que vous-même ou un membre de votre ménage est allé au lit en ayant faim parce qu'il n'y avait pas assez de nourriture"	
29	Stratégies utilisation des biens	
30	Avez-vous dans votre communauté utilisé une des stratégies suivantes ?	
	Enregistrer des départs d'actifs plus que d'habitude	*Oui* *Non*
	Vendre sa force de travail pour acheter la nourriture	*Oui* *Non*
	Vendre des animaux reproducteurs pour des besoins alimentaires	*Oui* *Non*
	Vendre des biens non productifs (bijoux, objets de valeur, le grenier, maison, outil de travail, etc.) pour des besoins alimentaires	*Oui* *Non*
	Vendre des biens productifs (bœufs de trait, charrue, charrette) pour des raisons d'insécurité alimentaire	*Oui* *Non*
	Vendre des terres pour des raisons d'insécurité alimentaire	*Oui* *Non*

	Confier vos enfants aux marabouts pour diminuer les bouches à nourrir	*Oui* *Non*
	Perdre vos biens suite aux jeux de hasard	*Oui* *Non*
	Recours à la vente de bois et de la paille	*Oui* *Non*
	Recours à la fouille des fourmilières	*Oui* *Non*
	Faire des choses interdites ou anormales pour avoir à manger	*Oui* *Non*
31	Donner de exemples concrètes sur comment le projet PRESENCES/CARE a contribué à la réduction des stratégies suivantes ?	
	Enregistrer des départs d'actifs plus que d'habitude	
	Vendre sa force de travail pour acheter la nourriture	
	Vendre des animaux reproducteurs pour des besoins alimentaires	
	Vendre des biens non productifs (bijoux, objets de valeur, le grenier, maison, outil de travail, etc.) pour des besoins alimentaires	
	Vendre des biens productifs (bœufs de trait, charrue, charrette) pour des raisons d'insécurité alimentaire	
	Vendre des terres pour des raisons d'insécurité alimentaire	
	Confier vos enfants aux marabouts pour diminuer les bouches à nourrir	
	Perdre vos biens suite aux jeux de hasard	
	Recours à la vente de bois et de la paille	
	Recours à la fouille des fourmilières	
	Faire des choses interdites ou anormales pour avoir à manger	
32	Credit et information climatique	
	Combien des participants a la discussion ont utilisé les informations climatiques ?	
	Combien des participants ont empruntées de l'argent ?	
	Combien des participants ont utilisé les banques céréalières ou le warrantage ?	
	Quel groupe dans la communauté a beneficié plus *a(du credit* *b(des informations climatiques*	

ANNEX 4: **List of Key Informants**

STAFF

- Aminatou Daouda Hainikoye, Plaidoyer et Communication, CARE Niger
- Oumakaltoum Issoufou, Gestionnaire des Connaissances et Apprentissage, CARE Niger
- Harouna Hama HAMA, Specialiste Adaptation, Community and Livelihoods, Climate Resilience, CARE Niger
- Gadage Aboubacar, Chef d'Equipe et Specialiste Gouvernance des Ressources Naturelles & Jigo Moumouni spécialiste Produits Forestiers non Ligneux), Tree Aid
- Sanoussi Ababale, Coordonateur, Pi Goal SAN, CARE
- ManzoIssoufou, Conseiller en Pastoralisme, AREN
- Ali Badara, Conseiller technique, Mooriben

GOVERNMENT/ SERVICE TECHNIQUE

- Ali Koumou, Service Technique Agriculture, Torodi
- Mohamed Ibrahim, Directeur Environment, Torodi & Makalondi
- Ibrahim Ahibou (Maire) & Mon Mouihassan (SG), Torodi
- Sidou Moussa, Service Technique Elevage, Torodi
- Abdou Haman, Mayor, Hamdallaye
- Sumaila Hamani, SG de OSV, Hamdallaye
- Adamou Zabani, Chef Service Communautaire Elevage, Hamdallaye
- Mayor, Gueladio
- Brahim Abdoullah, Service Technique Elevage, Gueladio

ANNEX 5: **List of reviewed documents**[16]

Reporting & Project Documents

1. BRACED CARE Annual Report Year 1 & 2
2. BRACED-PRESENCES Baseline
3. Mid-term Evaluation (incl. KPI4)
4. PHASE Concept Note PRESENCES
5. Logframe PRESENCES_mise à jours 18122017
6. ToC Updated_FRA
7. PRESENCES - Intervention Data and Locations Jan2018
8. Activités par communauté
9. Rapport d'activités d'évaluation des PACA.
10. Monitoring Datasets (Monitoring tools, KPI4, CSI)

Learning Documents

1. Document de capitalisation de BRACED-PRESENCES vf
2. Increasing Resilience Guidance Note_Final Dec2016_CARE approach
3. Niger-Climate-Information-Services-Country-Report
4. Observatoire de suivi de vulnérabilité ML2 2017
5. PHASE evaluation approach
6. *Improving Resilience: Five-country study of CARE International's VSLA*, C. Pettengeli
7. *Integrating disaster risk reduction and adaptation to climate change: Community-based early warning systems in Dakoro, Niger: Practitioner Brief 2*, Otzelberger A.
8. *The 3As: Tracking Resilience Across BRACED*, Aditya et al., ODI
9. Rapport Etude Genre BRACED-PRESENCES Participation équitable
10. PRESENCES Innovations case study_v21082017
11. Etude de cas Hamdallaye_VF
12. Table Ronde BRACED-ALP-GARIC

[16] The list is mix of internal and external documents