CAPITALISATION TECHNICAL NOTE

MODHEM+

January 2024

GARBAL 777

Table of contents

LIST OF FIGURES

GLOSSARY

Impacts: Changes in behaviors, practices, activities, power dynamics, relationships and social norms of individuals, groups and organiations with whom the program directly collaboratesent. [1]

Cluster of incidences: In our opinion, set of incidences and causal links which start from a service, an innovation, an event or an action and contribute to a change or a result.

Adaptive management or agile management: Structured and iterative process of decision-making and adjustment in response to uncertainties. [2]

Results-based management: Objective-based project planning and management tool. It involves taking a direction based on pre-established initial objectives, then monitoring these objectives through the analysis of the gaps between the forecast and what is actually accomplished. The logical framework integrates this type of management by objective. [3]

Résilience: Resilience: AGIR defines resilience as "the capacity of vulnerable households, families and systems to cope with uncertainty and the risk of shocks, to withstand and respond effectively to these shocks, and to recover and adapt to them effectively. sustainable way. Here the emphasis is placed on mitigating risks, particularly linked to climate and transhumance as a factor of resilience. Likewise, access to opportunities (access to services, networking, market place, etc.) is also highlighted here..

---

[1] Source : https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/31525/IDL-31525.pdf?sequence=17&isAllowed=y

[2] Source : https://www.alnap.org/system/files/content/resource/files/main/Guide-Gestion-Agile_FINAL_FR.pdf

[3] Source : https://www.eval.fr/methodes-et-outils/gestion-axee-sur-les-resultats/

LIST OF ACRONYMS

AAER: Adopt, Adapt , Expand, Respond

ADPM: Dintal Pinal Maroobé Association

ANAM: National Meteorology Agency

AP: Andal and Pinal Association

BTL: Below the line (non-media marketing)

CILSS: Permanent Inter-State Committee for the Fight against Drought in the Sahel

DDC: Swiss Development Cooperation

DGEAP: General Directorate of Pastoral Areas and Developments

EGIS: Gender Equality and Social Inclusion

EKN: Embassy of the Netherlands

G4AW: Geodata for Agriculture and Water

HSS: Hoefsloot Spatial Solutions

IVR: Interactive Voice Response

MODHEM: Mobile Data for Moving Herds management & better Incomes Project

MSC: Most Significant Change

MARAH: Ministry of Agriculture, Animal and Fisheries Resources

NSO: Netherlands Space Office

OP: Professional organisation of Producers

PPP: Public – private partnership

PRSAN: Project to strengthen agricultural production services through digital technology

RSE: Corporate Social Responsibility

SCOOP: Cooperative Society

USSD: Unstructured Supplementary Service Data

SIM-B: Livestock Market Information System

SMS: Short Message Service

SONAGESS: National Society for Food Security Stock Management
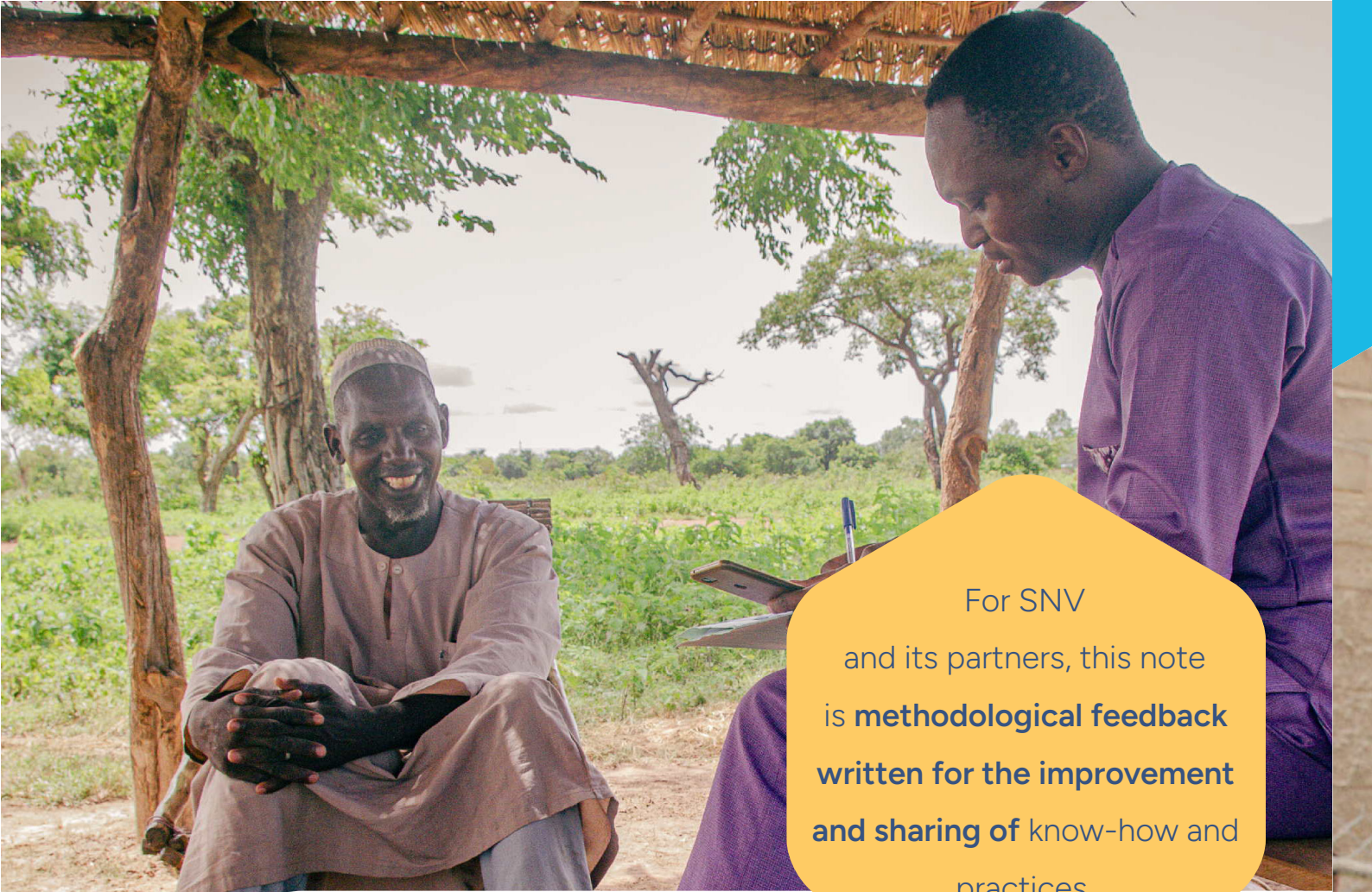
> For SNV and its partners, this note is **methodological feedback written for the improvement and sharing of** know-how and practices.

INTRODUCTION

This capitalisation comes in connection with the closure of the project ' Mobile Data for Moving herds Management and Better incomes in Burkina Faso ' abbreviated "MODHEM+ whose objectives were to strengthen the **resilience** of men and women breeders, pastoralists, agropastoralists and farmers, as well as improving their **food security** through the generation of economic **(income)** and **social benefits**, thanks to a better capacity **to adapt to changing climatic and market conditions** through the use of 'GARBAL' [4] **services**.

MODHEM+ was implemented by a consortium bringing together four[5] public and private structures and financed by the Embassy of the Kingdom of the Netherlands (EKN) in Burkina Faso in two phases from 2016 to 2019, then from 2020 to 2023.

The MODHEM+ project targeted the use of the service by 230,000 breeders, pastors and farmers (including 30% women) [6], making it possible to improve access to advice by 15% and income by 10%.

Although not clearly mentioned in the project objective, social stability is a key element. The resilience targeted by the project involves complex intertwined dynamics. The monitoring and evaluation system makes it possible to justify and document the effort implemented by the project, the results and the impact with regard to the pre-established planning and logical framework.

Intervening at the project closure stage, this capitalisation note does not define a strategy for the sustainability of the service or a new economic model even if it provides a solid basis for reflection. It offers a certain perspective in relation to external and internal evaluation processes without being an evaluation or review.

By exploring the changes that have taken place and dissecting them, capitalisation aims here to change the angle of view to analyse the evolution of the context, document the changes and appreciate their systemic nature which is directly linked to the notion of sustainability.

[4]'GARBAL' service consists of a call center, a dematerialized marketplace " 'GARBAL' YAAR" and a financial service. It is a common name for the servicesdeployed by SNV in Mali since 2017 (STAMP+ project) and more recently in Niger (IDAN project launched in 2022)

[5]SNV, ORANGE Burkina Faso , Hoefsloot Spatial Solutions (HSS) and the Ministry of Animal Resources

Project history: A service deployed in fits and starts in a fragile context

This section will provide the history of the project, highlight the discontinuous deployment of the service in an unstable environment and examine the relevance of the service in relation to the context and the increase in risks..

Relevance of the service offered in relation to the context and the increase in risks

Agriculture and livestock farming constitute the backbone of livelihoods in the Sahel. MODHEM+ bases its intervention logic on the fact that access to "reliable, localized and up-to-date" information makes it possible to inform decisions and thus improve productivity by limiting the risks inherent in production activities.

However, the evolution of the context goes in the direction of an increase in the risks linked to climate change and the deterioration of the security context which leads to inaccessibility in certain areas, an abandonment of the already structurally limited technical supervision and an amplification of displacement populations.

This situation, in addition to creating new pressures on the natural resources surrounding the displaced persons camps, creates new humanitarian needs which partly redirect the resources of the State and international organisations and in certain cases complicate reaching target groups.

On the operational level, security conditions and the destruction of telecommunications infrastructure considerably limit mobilisation actions and the operation of the service in certain areas.

Remote access, instantaneous forecasts or the digitalization of information, advice and financial services are very important issues in relation to the management of growing risks in the sub-regional context and confirm the relevance and adaptation from the project to the context and its evolution as well as the important role it plays in securing income and mitigating new climate risks.

However, to be sustainable, the service must be dynamic and keep pace with the rapid evolution of the economic, political, social, institutional and cultural system that surrounds it.

While taking care not to disseminate sensitive information, the project had to adapt to these developments in order to be able to deploy the service despite the difficulties.

Chronology of a slowed-down project with untapped potential:

The project was carried out in two main phases ranging from 2015 to 2019 for the experimental phase (phase 1) and from 2019 to 2024 for the deployment and consolidation phase (phase 2). The economic model provided for the autonomy of the service in 2024.
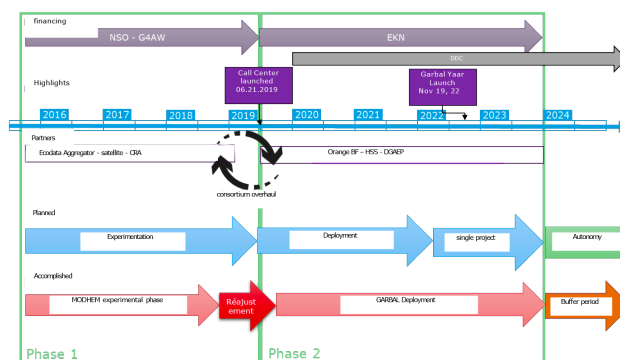
Figure 2: Overall timeline showing project components (donors, partners) over time

MODHEM 2016-2019 experimental phase, launch of the service despite an unsuccessful partnership

The first phase of the project was financed mainly by Netheland Space Office (NSO)[7] as part of the Geodata for Agriculture and Water (G4AW) initiative.

A readjustment was made at the end of the phase with the termination of the Ecodata contract. At the same time, Satelligence was replaced by Hoefsloot Spatial Solutions (HSS) and the Dutch Embassy in Burkina Faso (EKN) took over from NSO as funder.

At the end of a relatively difficult but successful experimental phase, the call center was launched on June 21 2019. The readjustments at the end of the phase and the partnership signed with Orange Burkina Faso and HSS made it possible to build a viable pilot despite the initial difficulties. The name 'GARBAL' was then chosen in reference to the equivalent service launched in Mali in 2018 by SNV's STAMP+ project (EKN funding) with a view to regionalizing the service in the medium term.

---

[7]NSO 70 % and 30% by Satelligence , Orange Burkina Faso (ORANGE BURKINA FASO), the Ministry of Animal and Fisheries Resources (MRAH) as well as the Permanent Inter-State Committee for the Fight against Drought in the Sahel (CILSS)

With the overhaul of the consortium
and the launch of the new service at the end
of 2019, the initial phasing
**« Experiment 2015-2020
↓
Deployment 2020-2022
↓
Single Mali-Niger-Burkina Project 2022-2023»**
was already significantly behind schedule.
Despite this, the responsiveness and effectiveness of
the readjustment carried out allowed the final evaluation
of the pilot phase to conclude that
« the partnership achieved the predetermined
objectives of the project ».

The development of the 'GARBAL+' service: Challenges and blockages

At the start of this second phase, all project stakeholders (EKN, Orange Burkina Faso, the State and partners) made considerable efforts.

Unfortunately, this phase will experience several periods of slowdown caused by covid 19 (in 2020), the coups of January 2022 and September 2022 which gave rise to institutional and organisational instability in general and in the livestock ministries and agriculture in particular.

Despite external circumstances, the deployment was able to take place for 'GARBAL +' on the basis of which the project acquired additional funding from the Swiss Development Cooperation (SDC) in 2020. The 'GARBAL Yaar ' service was developed until 'to be launched in November 2021.

Difficulties will arise due to EKN on April 25, 2022 and will significantly impact the project, particularly the development of the economic model of the service.

In addition, the late release of funds in 2023 will hamper the smooth running of project activities which will be partially implemented through accelerated planning and pre-financing from SNV.

Closure of the project and entry into transition period

Despite the challenges encountered at the end of the phase, the partners prepared to ensure the continuity of the service with their own funds while awaiting a relaunch which would make it possible to further sustain the investment made and to develop the unexploited potential of the service. (Innovation and development of financial services in particular). Under the leadership of SNV, the members of the consortium continued their actions in seeking additional funding and supporting the service's current complementary actions.

MODHEM+ data 2020-2023

Service name: 'GARBAL' +

7 basic regions + Center North from 2019 and in July 2023 Center East, Center South and South West.

Budget: 4 million euros by EKN and valued contributions in particular from Orange Burkina Faso.

Bailleur: EKN

Partners: PPP/consortium SNV-HSS-MARAH-ORANGE BURKINA FASO and 18 grassroots organisations (promotion of the service and data collection) including 7 women's organisations.

Cost of connection: 30 FCFA then 100 FCFA/min

1,100,000 people mobilized, 259,000 users, 1,906,000 calls to 777 " 'GARBAL' service ", 800 SMS requests (operationalized 03 months before the end of the project)

Figure 3: Phase 2 project timeline showing internal and external factors and their impact on project phasing

Exploring the mechanics of the project

This section dives into the mechanics of the project, exploring the key elements that shaped how it worked

From production to translation: HSS and public services as information managers

Production of different types of information and institutional anchoring

The 'GARBAL' information system is mainly based on the online publication of information generated by various partners or extracted directly from satellite data. HSS benefits from privileged access to this satellite data and gathers the necessary information transmitted by the State technical services. This data is then analysed using specific algorithms, arranged, stored, and made available to the call center via a dedicated platform. This procedure guarantees rapid and effective accessibility to crucial agricultural and pastoral information for users of the 'GARBAL' service.

Currently, there is no information collection system per se. The 'GARBAL' service is therefore integrated into public data collection systems and works in perfect synergy with State technical services in order to facilitate the dissemination of their products to a wide audience, such as ANAM for weather forecasts and **agro-meteorological information, SONAGESS and MARAH for prices of agricultural, animal and dairy products and DGEAP for data on infrastructure and pastoral services.**

The information service also includes an **advisory support component** in agriculture and livestock based on sheets prepared by technical agents of the ministry in charge of rural development.

The participation of the Burkinabè government in the MODHEM+ project consortium and the use of Viamo 's 3-2-1 service, offered by Orange Burkina Faso, are an integral part of its strategy in the field of agricultural extension.

It is crucial to emphasize that the dematerialization of public services requires collaboration with the private sector, in particular telephone operators, and to qualify the notion of the lucrative nature of the service, because a significant part of the cost is borne by the telephone operator Orange Burkina Faso whose interest lies more in its corporate social responsibility (CSR) and customer loyalty for its other commercial products than in the simple dissemination of public information facilitated by 'GARBAL'.

Translation of information: a pillar of service that has not been neglected

The translation of knowledge and data into information relevant to agriculture, livestock and transhumance is of crucial importance to provide useful advice and inform decisions in these areas.

Therefore, the translation of knowledge must be closely linked to the training of telephone advisors, thus ensuring adequate use of the information available to them and optimal transmission to callers and guaranteeing the provision of quality services adapted to local realities.

Thanks to MARAH and HSS, the technical standards for agropastoral advice have been made accessible to the target groups (terminology, concepts).

People at the heart of the system: the call center, the voice of information

Operation of the call center

The 'GARBAL' information service offers instant access via SMS (USSD menu) and calls (to 777) in French and in four local languages, delivering reliable information and advice on production at a cost of 30 FCFA for connection then 100FCFA/minute. The call center is made up of a team of telephone advisors and two supervisors, operational from 6 a.m. to 9 p.m. The telephone advisors each speak two local languages in addition to French and are trained in livestock or agriculture.

The option for a voice solution via the call center fits with the local culture, promoting a better understanding of the information provided and facilitating interaction with users.

Major role of the call center in service adoption

The testimonies highlight the successful integration of the 'GARBAL' information service into user habits. 'GARBAL' is described as a tool in its own right.
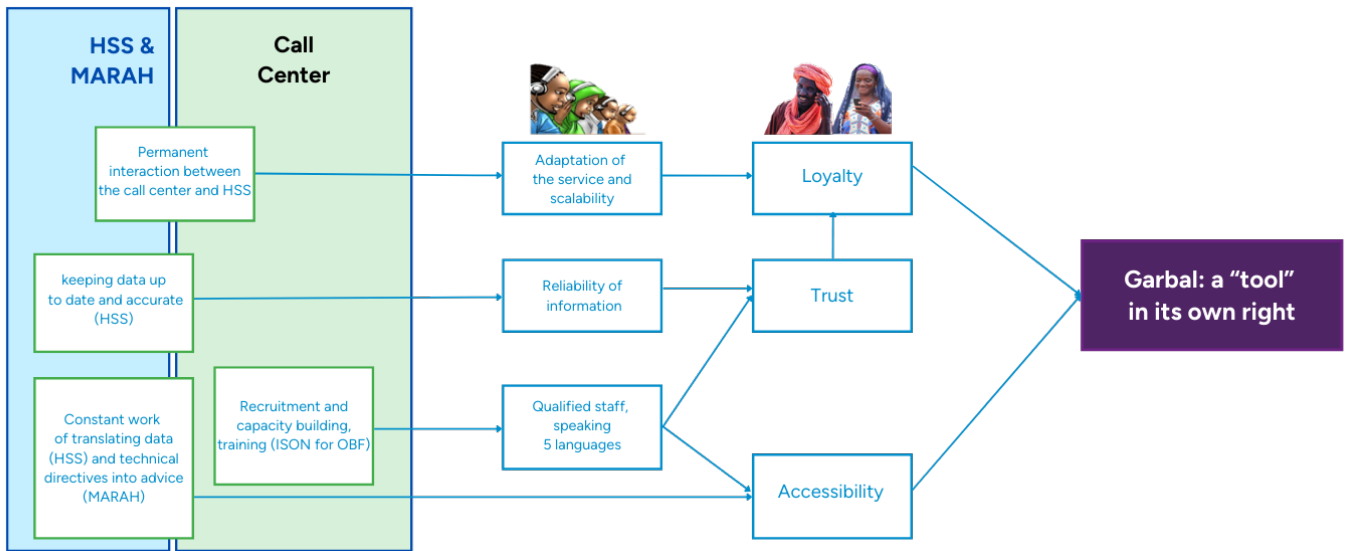
Figure 4: Humans as a major component of the adoption of the 'GARBAL' service

In the Burkinabe context, using a call center as an information communication solution has various advantages:

☑ **Accessibility for a diverse population**

☑ **Taking oral communication habits into account**

☑ **Building trust through human interaction**

☑ **Local languages**

☑ **Adaptive management facilitated by feedback between the center and HSS.**

Challenges and solutions: congestion as the main obstacle

The disadvantages of the call center mainly concern **congestion, operational limitations** (network infrastructure and quality of voice communication) as well as the relatively high associated **costs**.

In order to **reduce congestion and optimize** calls to the 'GARBAL' service, the implementation of an **Interactive Voice Response (IVR)** is underway by Orange Burkina Faso for all of its services which mobilize call centers call[8] to handle a higher volume of calls.

In order to avoid congestion, an increase in the center's capacities depending on the evolution and seasonality of demand is also to be expected (permanent and seasonal recruitment).
The costs linked to the management of the call center, including human resources and fixed costs, must be carefully evaluated in relation to the issues of sustainability through profitability and self-financing of the service.

---

[8] According to project activity reports, the IVR solution was to be financed by resources generated with the launch of financial products, an activity suspended by EKN. .

	2020	2021	2022	2023
🟦	363 704	592 008	326 232	624 531
🟧	74 276	117 858	75 734	150 028
⬜	55 074	77 313	51 021	112 831

Figure 5: Number of calls made per year including the number of calls resulting in a connection, including the number of calls successful and actually processed.

Induced changes and sustainability of the service

Update on impact indicators and project results framework

The approach of this capitalisation note is based on a qualitative assessment of the changes and their significance based on the stories of the actors involved. It is important to emphasize that the evaluation of the results recorded in the project monitoring framework constitutes a distinct approach, focused on the results measured by the contractual indicators.

According to the final evaluation, however, we can note the following elements:

✓ **40%** of agropastoral households using the 'GARBAL' service have improved their food security

✓ **41 %** of agropastoral households using the 'GARBAL' service improved their income

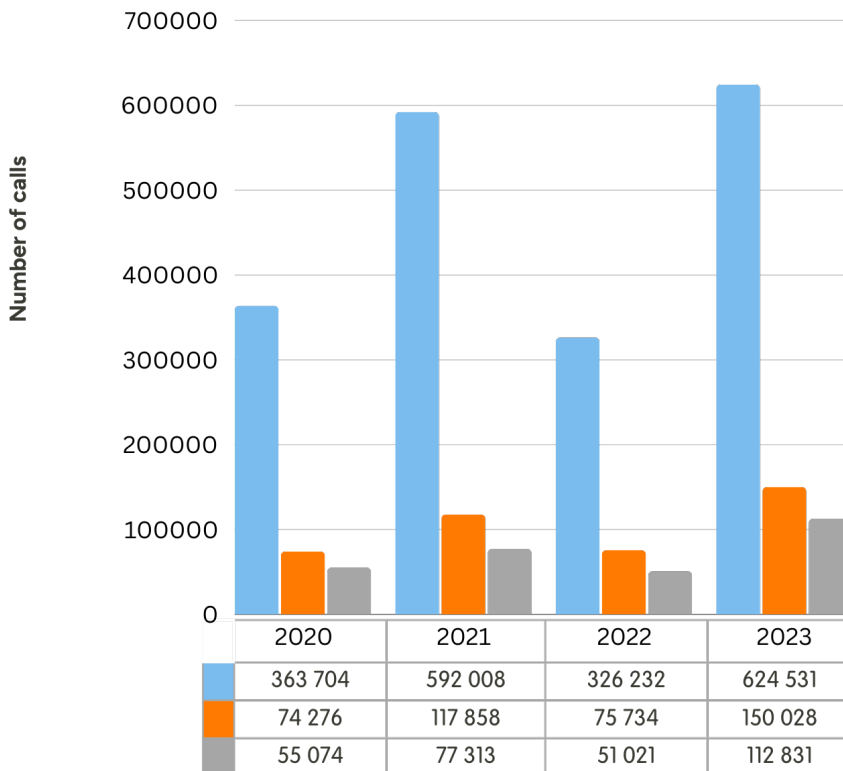✓ **92%** of agropastoral households using the 'GARBAL' service have improved their animal and agricultural productivity

✓ **The prevalence of conflict in the project area saw a significant decrease of 18%,** from 39% to 32%, then to 21% at the end of the project..

Mobilisation and issues associates

The mobilisation effort:

In order to stimulate the use of the service, three main channels are used:

• Basic organisations:
This is the main way of mobilisation involving more than 1,100,000 people mobilized since the start of the project. Through collaboration agreements concluded with 18 grassroots organisations, including 7 women, to facilitate the mobilisation and the use of the service in the field. In 2023, 128 people (facilitators, focal points), including 35 women facilitators, have been trained for this purpose.

• Decentralized State services:
This secondary mobilisation way made it possible to directly reach more than 128,100 people through exchange frameworks organized by technical agents for this purpose.

• Orange Burkina Faso communication and marketing services:
This way of mobilisation is difficult to quantify given that in terms of content it is much weaker while being very broad in terms of audience.
SMS pushes continued with an average of around 500,000 – 700,000 SMS per day over the period, provided by Orange Burkina Faso.

In total, **1,105,000 people**, men and women (pastors, breeders, agropastoralists, farmers), were mobilized to use the service, including **46% women** and **54% young people (m/f)**, for a target initial of **750,000 people**. Mobilisation mainly increased from 2022 (80%).

Mobilisation, expansion of the user base and sustainability of the service:

The mobilisation around the 'GARBAL' service aims, firstly, to extend the reach of the service by informing and raising awareness among a wider audience to increase the profitability of the service.
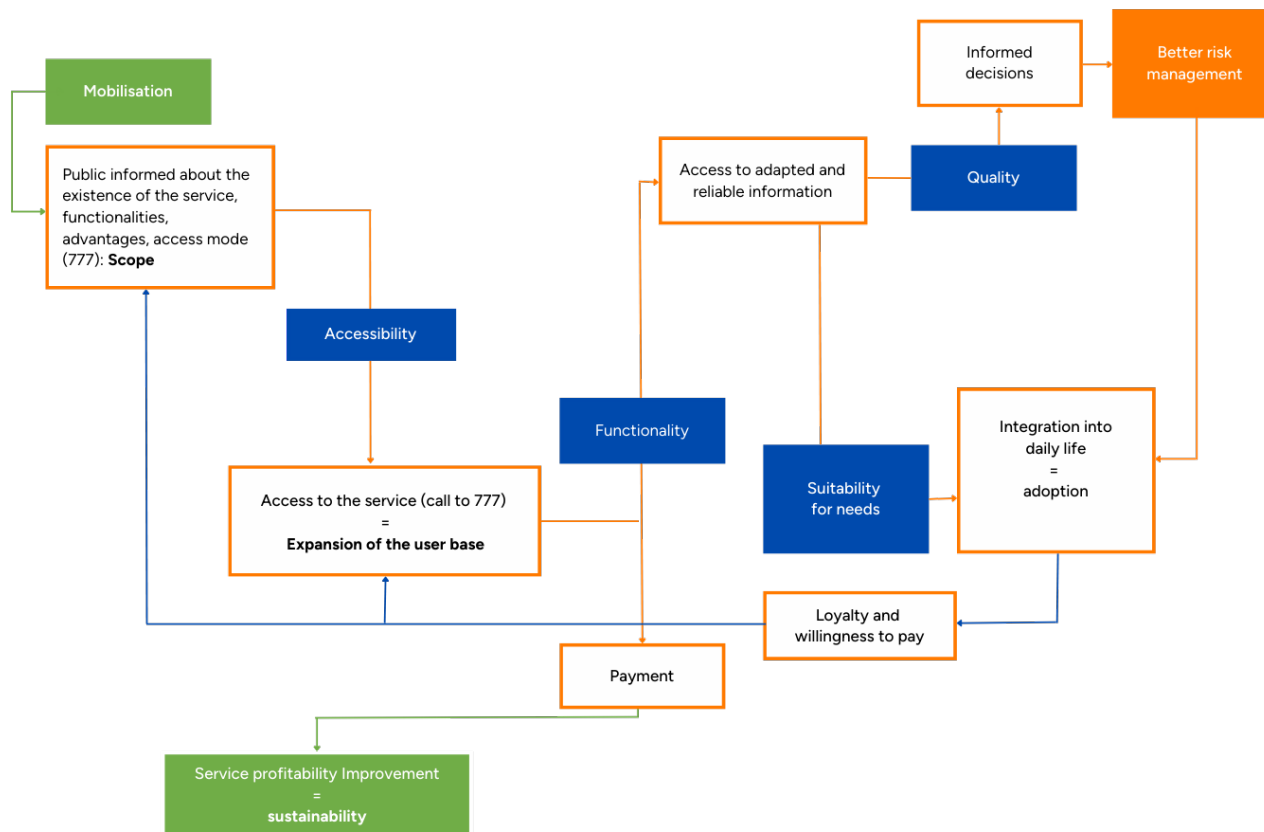
Figure 6: Link between mobilisation and sustainability of the service

In order to ensure the effectiveness of mobilisation, it is essential to associate this effort with initiatives aimed at improving the accessibility and functionality of the service, as well as the quality and relevance of the information to meet the needs of users.

Mobilisation and inclusion:

At the same time, the objective is to guarantee equitable access to information adapted to each target group identified by the project, thus promoting the inclusion of all potential users. This method of mobilisation seems particularly effective since the regions where these umbrella organisations are well established record the highest female participation.

Collaboration with groups has also been intensified to mobilize users.

agricultural, livestock, transhumance, processing and marketing through 'GARBAL YAAR', to unravel the concrete impacts of the service on various aspects of agricultural activities.

What was planned: the results chain

Results chain hypothesis: A better access to information and more informed decision-making are considered to contribute to increasing productivity and generating additional income. This improvement in the resilience of the livelihoods of the target population is seen as promoting the adaptation of the latter to "short, medium and long-term variations in weather and market conditions".

Clusters of incidences: Exploration of the links between access to information and expected transformations

This section dives into exploring the impact clusters, highlighting the links between access to information and the transformations at work by examining the intended results chain and focusing on output
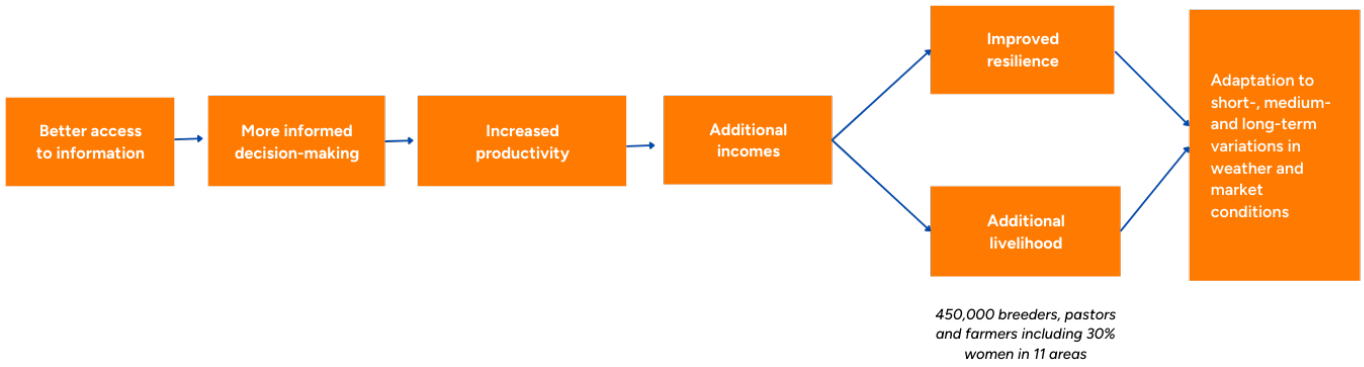
Figure 7: Project results chain

What the testimonies say about the changes

In relation to the service:

The service is described by users as "reliable and available at all times". It allows you to obtain accurate information in real time: **Sawadogo Abibata, a farmer, says "their advice is always right"**. *The users we met think that the service has "changed their way of farming and raising thanks to information, promoting better planning and organisation of their activities and informed decision-making:* **"before we worked to the blind woman declares this soumbala producer [9] »**, **"the change is palpable in our lives" affirms this farmer**.

It is important to emphasize that **90.4% of users expressed satisfaction with the information received compared to 64% recorded** during the mid-term evaluation and proves the increasing effectiveness of the service in responding to user needs. However, the data was not disaggregated and possible disparities could not be analysed.

---

[9]Soumbala is a condiment used in West Africa and produced from the seeds of the néré tree. After hulling, the seeds undergo a whole process of cleaning, cooking and fermentation and drying which requires taking into account the weather conditions to successfully complete the activity..

Indicators	Basic study	Mid-term evaluation	Final evaluation	Global Target
Adoption rate of the use of the GARBAL service by breeders/pastoralists in agropastoral practice in the project intervention areas	68%	25,4%	54%	**70%**
Adoption rate of the use of the GARBAL service by farmers/in agropastoral practice in the project intervention areas	65,5%	77,7%	78,2%	**78%**
Percentage of satisfaction of pastors and agro-pastoralists (men, women, young people) using the GARBAL service	60%	64%	90,4%	**80%**

Source: SNV-Akvo field survey data; December 2021 - January 2022 and November 2023 - December 2023

Figure 8: Results of adoption indicators from the final evaluation of MODHEM+

Agricultural production

Farmers use the 'GARBAL' service to plan the agricultural calendar according to rainfall, whether for sowing, applying fertilizer efficiently or for the spraying stage of phytosanitary products. The advisory services provided by experienced technicians have also enabled farmers to produce compost and ensure entirely organic production.

Thanks to the Garbal service, bean producers know how to protect crops from pests' invasion such as worms or choose the crop according to the season and rainfall: e.g., beans or sesame instead of corn in August-September.

Thanks to the application of good agricultural practices and geolocated weather information, farmers have been able to reduce their losses and improve their yields, as demonstrated for example by Sibri Ouedraogo, farmer in the commune of Korsimoro in the North Center who cultivates corn on an area of 2 and a half hectares: "since the service existed, we have obtained 4 tons of cereals instead of 1 and a half tons" and this, thanks to the effective application of fertilizer.

In addition to offering an interesting level of detail on the composition of the transformations taking place, the exchanges revealed positive changes induced by access to information, in light of the real concerns of users such as improved risk management and increased income achieved through investments leading to greater confidence within households, plus access to a neutral information base recognized as reliable which promotes decision-making consensus conducive to increased collaboration and greater inclusion.

This stability helps to create a more serene atmosphere within households and prevent conflicts.

Idrissa Tall[10],
breeder and farmer in Banfora says "(before) there were many conflicts because we lived among farmers and often the tracks are not well marked and when the animals enter the fields it caused conflicts. »

Livestock breeding and transhumance

The information provided by the 'GARBAL' service to livestock and sheep breeders allows them to know and follow the vaccination schedule and epizootics for prevention purposes and to provide the necessary care to sick animals. Geolocation and fodder prices as well as information on water points for watering livestock contribute to reducing losses and improving the health of livestock: "(this) allows us to register many births, reduce mortality and increase the livestock population" declares Salifou Sankara, breeder-farmer in Patiri, Passoré Province.

These effects undoubtedly have repercussions on the quality and volumes of milk produced, milking, processing and marketing of milk and its derivatives being a female activity, it can be assumed that the entire household benefits. Information on rainfall allows poultry farmers to determine the optimum time to produce feed for chickens, or cattle breeders to determine the best period for harvesting fodder.

The breeders met affirm that the 'GARBAL' service allows them to better manage the mobility of their herds during transhumance or to take the animals to pasture. Thanks to the information on surface water and drilling in the dry season (quality and availability),

biomass, and the availability of transhumance trails and associated services, the mobility of livestock is carried out in a peaceful manner.

Access to **breeding advice** emerged in the discussions as having a significant impact in the prevention and treatment of animal diseases. Connecting **with** veterinary agents and livestock feed suppliers, where available, is also of interest, particularly to novice breeders.

The final evaluation reveals that 83% of households actually adopt animal prophylactic measures based on the information and advice received from the 'GARBAL' service, compared to 88.4% during the baseline study.

The late integration of **SIM-Livestock data** into the project explains the low emphasis placed on this aspect in the testimonies, although usage data shows increasing demand at the end of 2023.

The discussions also highlighted the importance of weather forecasts and agrometeorological advice to increase fodder production.

[10]Idrissa Tall is secretary general of APESS and president of the Cascades Regional Union of Milk Producers.

Processing and marketing ('GARBAL YAAR')

Rice parboilers and soumbala (seasoning made from néré seed) producers need reliable information on rainfall to know the best time to dry their products. Indeed, the rains can cause the soumbala to decompose: "the rain could beat my soumbala at the worst time, causing it to decompose in two days" declares Kourita Pogbi in Arbollé. The same goes for the rice drying stage for parboilers. By reducing the losses incurred, the service allowed them to reduce production costs and improve their profit margin. In addition, information on prices in surrounding markets also allows traders to sell to the highest bidder.

Better knowledge of sales prices on the markets allows us to make informed choices about where to buy and sell cereals, as Wahabo, Ouermi , cereal trader in Samandéni , states : "when we want to buy cereals, we call in the villages, in Banfora, then in Bobo Dioulasso to find out the different prices. We can have the purchase and sale prices in the different localities without traveling, which made it possible to avoid losses. » The breeders, farmers and processors met, affirm that the 'GARBAL' service helps them sell their products on the highest-selling markets and/or to make themselves and their products known on the platform 'GARBAL' yaar . For producers, processors and traders, this digital market is a way to give more visibility to their products

on a safer market, to expand their customer base and to sell their products at more profitable prices, without move.

Figure 11: Incidence beams for processing of agricultural products and 'GARBAL' YAAR

Regarding the processing of agricultural products generally practiced by women, access to weather forecasts has a significant impact on the organisation and success of drying operations as well as transport. In addition to considerably reducing losses, having reliable weather forecasts allows effective planning and considerable time savings which allows women to better balance their productive activity with household tasks contributing to the social acceptability of their productive activity, their valorisation and ensures them greater support from their spouses and families.

This also applies to the 'GARBAL' YAAR purchasing platform, which allows processors to save considerable time by delegating canvassing and delivery to the service. This time saving allows them to combine their activities more efficiently and improve their productivity.

Dynamics at the end of the project: analysis and related questions
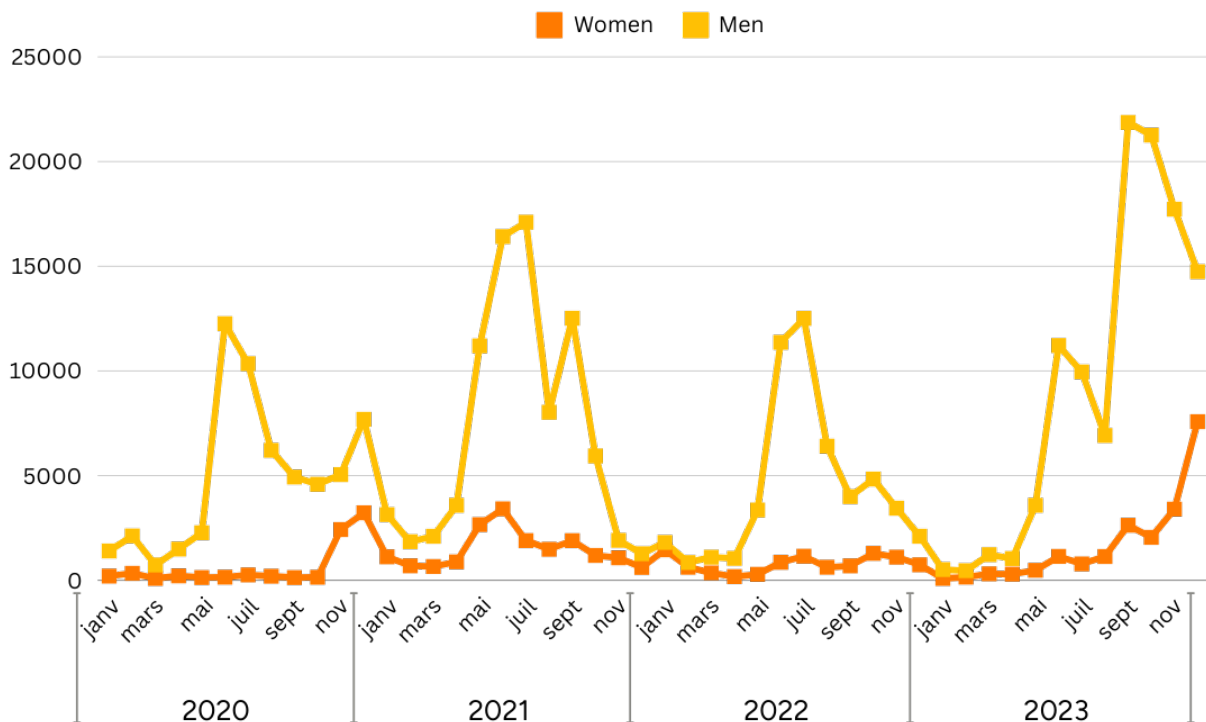
Usage data reveals general momentum at the end of the project

Figure 13: Number of calls made by men and women over time

OWe note a clear increase in calls at the end of the project which does not follow the seasonal curves observed during the first 3 years. Indeed, in 2023, unlike other years, we see an increase between the 3rd and 4th quarter of the year which is mainly explained by the fact that the callers, mainly **farmers (men)[11] continued to request the weather data until the end of the year** (due to an extended season as well as the addition of new regions where the rainy season is wider).

It should be noted that a new dynamic has emerged among women, on two main services: information on prices and advisory support. We thus note a boom among callers: women who said they were farmers and traders [12] mainly asked for information on prices and secondarily for advisory support, while women who said they were breeders mainly asked for advisory support. and secondly the prices.

---

[11]Female farmers also followed the same upward curve but the number of calls recorded by male farmers, although lower than in previous months, remains 38% compared to other categories.
[12]Unlike the traders who were relatively well represented at the start of the project, the traders called the service very little before the last quarter of 2023 when they recorded 829 calls compared to 621 for the traders.

What the data on the type of information requested says about the suitability of the service to needs

Adequacy with the needs of users is a central concern of the project, with regular identification of the types of information and the needs for use with pastoral and agricultural organisations.

Usage data reflects significant momentum in the final quarter of 2023, including a sharp increase in calls made by women.

The renewed interest of breeders in the advisory support service at the end of the project requires in-depth exploration. At the same time, the very low demand for information on agro-pastoral resources and infrastructure highlights a probable inadequacy between the proposed content and the real needs of these populations. This disparity deserves further investigation.

According to project managers, periodic consultations with pastoral organisations indicate that the needs of these populations focus on better access to financing, zootechnical and veterinary inputs. The in-depth analysis of these needs is crucial to complete the 'GARBAL' service, and respond effectively to these requests.

Analysis of the systemic nature of the changes induced: lessons learned and recommendations for the sustainability of the service

This section takes up and enriches the analysis of the previous sections by specifically examining the situation at the closure of the MODHEM+ project, extracting using the AAER framework (Adopt-Adapt-Expand-Respond), the **lessons learned** then formulating **recommendations** for sustainability anchored in local realities and the needs of users.

Adoption/ sustainability over time:

Adoption here refers to the level of use and integration of the service by targeted users. Adoption measures the degree to which users accept and actually use the service, which is a key indicator of its long-term impact and viability.

Findings for the Adoption of 'GARBAL':

→ **Promising level of use:**
The transition towards sustainable adoption of the 'GARBAL' service is observed at the micro level, where the service evolves to become an essential tool in the daily lives of users.

→ **Effective but unsuccessful mobilisation:**
The mobilisation that was able to be carried out paid off, but it still remains necessary at the project closure stage, particularly due to the major obstacles encountered which did not allow optimum deployment across the entire project. country.

→ **Direct use and invisible use:**
The user base currently relies mainly on heads of household farmers with localized weather forecasts as their flagship product.

→ **Critical mass to be achieved:**
At the end of the project, the critical mass has largely not been reached and the continuity of the service still depends very largely on the contributions of the members of the consortium and the efforts of each of the entities to maintain a minimum service during periods of transition.

Lessons Learned for the Adoption of 'GARBAL':

→ A service on a human scale, a guarantee of accessibility and sustainability Thanks to the Call Center

→ Mobilisation by partners, anchoring and sustainability

→ Localized weather forecasts as a loss leader and inclusion issues

→ Profitability of the service and inclusive nature

Adapt/spontaneous adaptation:

In the context of the AAER (Adopt-Adapt-Expand-Respond) framework applied to the GARBAL project, adaptation refers to the ability of the service to evolve and adjust its functionalities, methods and content in response to changing user needs, as well as the evolving conditions of the environment in which it operates. Adaptation thus becomes an ongoing process that strengthens the service's ability to maintain its relevance over time, demonstrating its operational resilience and ability to respond to emerging needs.

Findings for the Adaptation of 'GARBAL':

→ **Agility of the service which** is manifested by its ability to spontaneously adapt to changing needs.

→ **Adaptive management of the MODHEM+ project and resilience of actors** despite the challenges during turbulent periods and the suspension of activities.

→ **Chronic congestion as a symptom of a certain rigidity of the system**

Lessons Learned for the Adaptation of 'GARBAL':

→ Taking into account human and social systems and agility

→ Partner engagement was key to resilience

→ Defining needs as an iterative step promotes inclusion

Extend/scale:

Expansion refers to the phase of the process where the service aims to expand its reach and increase its influence, reaching an increasing number of users and communities in a spontaneous and integrated way, without specific intervention. Within the AAER framework, requires a thoughtful and flexible approach, in alignment with lessons learned from service adoption and adaptation, to ensure sustainable and well-integrated scaling in local contexts.

Findings for the Extension of the service:

→ Word of mouth and advertising

→ Holistic and local approach

→ Limited network coverage

Lessons learned for the 'GARBAL' Extension:

→ Local partnerships as levers for expansion

→ Adaptive management, change orientation for successful expansion

→ Flexible business model

Answer/environment:

The "Response" refers to the reaction of economic and institutional actors to the evolution of the service to implement a system response for. This response supports the evolution of solutions favourable to target groups and promotes the growth and continued development of the 'GARBAL' service.

Findings for the environment's response to the emergence of the 'GARBAL' service:

→ 'GARBAL' as the main path to digitalization of technical services

→ Orange Burkina Faso as the sole contact in the sector

Lessons Learned for Environmental Response to the Emergence of the 'GARBAL' Service:

→ The commitment of stakeholders in the Public Private Partnership facilitates the environmental response

→ Political dialogue at regional level, integrated vision

→ Support the emergence of a local digital ecosystem

Recommendations and prospects for sustainability:

→ **Better integrate community relays:**
It is crucial to reflect on the community circulation of information to assess and analyse the scope of the phenomenon through an in-depth characterization of the audience because this process allows certain people to access information, particularly the most vulnerable groups such as women and herders.

It is essential to analyse the specific needs of these community relays and explore ways to integrate them more closely into the system, encouraging them to contribute more to the profitability of the service through initiatives such as premium memberships offering community relays of exclusive advantages and privileged access to encourage them to contribute more substantially to the operation and sustainability of the service.

→ **Go to a sub-regional project:**
Several factors favour an extension towards a sub-regional project: firstly, the 'GARBAL' service was developed from a sub-regional perspective with the IDAN projects in Niger and STAMP+ in Mali and MODHEM+ in Burkina Faso standing out as the most successful among the three similar projects implemented with regard to the results and data recorded and analysed earlier; secondly, a database common to the three projects was created with the help of a "Data Analytics" Manager recruited as part

of the IDAN project, a process of harmonization and cleaning of databases shared by ISON (under-contractor of ORANGE BURKINA FASO for the call center) and ORANGE BURKINA FASO was initiated in July 2022 to have aggregated usage figures; thirdly, a desire for more direct collaboration between the SNV, the embassies of different countries and the ministries could promote sub-regional coordination of the project, especially with regard to the elements of inter-connectivity and political cooperation between the countries (Burkina Faso, Niger and Mali).

→ Web application, platform and voice message system (decongestion and expansion).

The introduction of a web application and an online platform should make it possible to redirect certain smartphone users who are more familiar with this type of technology in order to lighten the load on the call center for the benefit of those in particular. those who need the call center the most due to the accessibility offered by this mode of communication.

A two-way voice messaging system allowing users to leave messages to call center agents to respond asynchronously would represent an innovative approach aimed at unclogging the call center while extending the reach of the service.
.

→ The grouping of services as a sustainability strategy:

The bundling of services is emerging as a key strategy to strengthen the sustainability of the 'GARBAL' service to consolidate the service offering and thus promote the loyalty of customers ready to invest more to access a complete set of features. Additional investments, particularly in the development of financial products, can help anchor the service into users' routines.

In conclusion, the grouping of services creates a synergy to strengthen the financial viability and overall attractiveness of the 'GARBAL' project. It offers a comprehensive and diverse solution for users, driving continued adoption and increased satisfaction.

Conclusion

The change-oriented capitalisation of the 'GARBAL' project offered an in-depth analysis of its evolution, starting from the experimental phase until closure, highlighting challenges, successes, and lessons learned.

In light of the presentation of the history, the mechanism and the various analyses of the mobilisation, the inclusiveness of the service, the dynamics of the end of the MODHEM+ project and the results observed, it follows as a conclusion that 'GARBAL' represents a catalyst for transformation in the agricultural sector, integrating mobile technologies to provide relevant services to farmers and ranchers.

Its continued success will depend on its ability to adapt, innovate, and collaborate with local stakeholders to meet changing needs and contribute to the sustainable development of rural communities.

SNV Impact that matters