VALUE CHAIN STUDY IN NIGER'S ADJE KORYA, KORAFANE, OURNO, AND DAN GOULBI COMMUNES

Non-Timber Agricultural and Forestry Products, Metal and Woodworking, and Fashion

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MERCY CORPS

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Executive Summary

This study offers an in-depth analysis of the value chains for non-timber agricultural and forestry products (NTFPs), metal and woodworking, and beauty and aesthetics (fashion) market sectors – focusing on the development of professional skills and mitigating the impacts of climate change – in Niger's Tahoua and Maradi regions.

In the latter regions, only the communes of Karofane, Ourno, Adjé Korya, and Dan Goulbi are covered by Mercy Corps' FCDO-funded Justice and Stability in the Sahel (JASS) programme. Five villages in each of these four communes were selected for the study. To achieve the study's specific objectives, we leveraged both primary and secondary data. The latter were obtained from decentralised state technical and communal services, NGO reports, and academic research. Primary data were collected from a sample of producer, processor, trader, tailor, and metalworker households. At the end of the study, we obtained results for five value chains: groundnuts, cowpeas, cassava, small ruminants, and professional trades (dressmaking and metal and woodwork).

The average areas given over to cowpea cultivation are 4.28ha, 3.74ha, and 2.4ha, with yields of 88.28kg, 93.46kg, and 53.79kg, respectively, in the communes of Adjé Korya, Karofane, and Ourno. The average income from the sale of these crops is around XOF 40,000. Purdue Improved Crop Storage (PICS) and ordinary bags are most often used by these producers to store their produce in the rooms and roofs of their houses.

Groundnuts are grown on average areas of 0.65ha, 2.1ha, 2.34ha, and 1.6ha, respectively, in the communes of Adjé Korya, Dan Goulbi, Karofane, and Ourno. Average production exceeds 5 bags in each commune, for an average income of over XOF 50,000. Most producers store their produce in ordinary sacks and peak sacks, in rooms, on the roofs of houses, and in attics.

The cassava value chain is concentrated in the communes of Karofane and Ourno, with average cultivated areas of 1.68 ha and 0.25 ha, respectively. The average income from the sale of cassava is around XOF 50,000. Short-term storage is in ordinary bags. Cowpea, groundnut, and cassava processing is carried out completely by women in each of the communes. Sales are conducted mainly on market day in the main town of the commune. Furthermore, most purchases are made from producers, collectors, and wholesalers. It should be added that more than 50% of cowpea, groundnut, and cassava producers suffer post-harvest losses, mainly due to insect pests and poor packaging.

Small ruminants are also reared in all communes. Goat rearing is more common than sheep rearing. The main sources of ownership of these animals are purchase and inheritance. The main buyers of these animals are butchers, farmers, and projects/NGOs. The average price of a goat is XOF 15,000, and that of a sheep is XOF 30,000. The sale of these ruminants enables households to finance the purchase of agricultural inputs, food, clothing, and medical care.

The sewing or fashion value chain is also present in Dan Goulbi, Karofane, and Ourno. Materials are sourced from local and Nigerian suppliers, as well as from the weekly market. Most dressmakers experience supply difficulties due to the high cost and/or scarcity of materials. Over 50% of dressmakers make made-to-

measure garments, with less emphasis on standardized garments. Products are marketed through direct sales, followed by sales at markets and fairs.

The metal and woodwork value chain is not adequately represented across all the communes due to a lack of electricity. The markets in the departmental capital and in Nigeria are the sources of supply for joinery materials. For these metalworkers and carpenters, the difficulties in obtaining supplies are linked to the high cost and/or scarcity of materials. The products they make are made to measure and include chairs, lounges, beds, etc. The products are marketed mainly through direct sales.

Finally, for all these value chains, a SWOT matrix analysis was carried out, in which the strengths and weaknesses, as well as the opportunities and threats for each value chain, were identified.

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Introduction

Mercy Corps is a leading global organization driven by the belief that a better world is possible. In times of disaster and distress, in more than 40 countries around the world, it implements bold solutions – helping people triumph over adversity and build stronger communities from the inside out, now and for the future.

Mercy Corps has been present in Niger since 2005 and focuses its interventions on improving food security, livelihoods, gender, social cohesion, governance and emergency response outcomes. Mercy Corps is currently implementing several development and humanitarian aid programmes worth more than US$ 27 million, with field offices in Filingué, Maradi, Tahoua, and Tillabéri in Niger. By way of illustration, in 2019, Mercy Corps was able to assist more than 89,000 vulnerable Nigeriens through several development and humanitarian aid programmes.

The Justice and Stability in the Sahel Programme (JASS), funded by the FCDO, is being implemented in the regions of Koulikoro, Ségou, San, and Koutiala in Mali and Tahoua and Maradi in Niger. It covers a 3-year period from April 2023 to March 2026, with the aim of helping to improve security and stability in Mali and Niger by promoting equitable access to land justice among marginalized groups. The programme is being implemented by Mercy Corps, in partnership with the NGO AMEDD in Mali and Cercle Dev in Niger.

As part of market systems development (MSD) activities, during its 18-month pilot phase, JASS conducted a study of the labour market to gain a better understanding of and support for value chains that promote employment for young people and women. The extension phase will continue the work initiated in the pilot phase and carry out a targeted assessment to identify specific employment opportunities for each link in the promising value chains identified by the market study carried out in the pilot phase in Mali, and the mapping of value chains carried out in Niger and Mali. More specifically, we are looking for the various links in the growth sectors that could lead to the best results in terms of job creation opportunities among our target groups, namely young people, women, and other marginalised groups in JASS intervention zones.

The overall aim of the study is to carry out an in-depth analysis of the value chains for non-timber agricultural and forestry products (NTFPs) and vocational occupations while focusing on innovations aimed at mitigating the impacts of climate change in Niger's Tahoua and Maradi regions. Specifically, this study aims to achieve the following objectives:

- Determine the flow of the products and the actors in the targeted value chains as well as their saturation level in terms of labour for self-employment and salaried employment for men and women, including people living with disabilities (PLWD), in the formal and informal growth sectors.
- Carry out an analysis of gender constraints and vulnerabilities in these sectors.
- Estimate the potential number of participants who can increase their income in these links in the value chains and the risks associated with these ventures.
- Map existing private sector actors (companies, SMEs, and start-ups, businesses, federations, etc.) by sector of intervention, highlighting their staffing needs (trainees, temporary or permanent workers).
- Map existing labour market institutions, including training providers in the target growth sectors, and assess the relevance of the vocational training models offered by training providers to the demand for skills in the main target employment sectors.

- Carry out a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of the targeted value chains and propose market-based solutions to address identified threats.
- Identify the laws, policies, regulations, international trade agreements, and public infrastructures that support the development of the targeted value chains.
- Identify the employment/self-employment aspirations of the target groups, including those related to innovation.
- Analyse the different types of support provided by partners (CFM, CET, and other support structures), to capitalise on their experience and further assist young people.
- Identify the need to strengthen entrepreneurial and technical-professional skills in line with market requirements.

Study methodology

The methodology developed by the study team was organised around three phases: the preparatory (start-up) phase, the data collection and analysis phase, and the report writing phase.

Start-up phase

The start-up phase was mainly an initial set-up meeting with the commissioning organisation where the consulting team had a presentation of the research scope based on the program proposal, drafting of the research plan, and desk review of existing documents that would inform the proposed study. This phase was broken down into three stages.

- **Scoping meeting:** The consultant presented the methodology (data collection tools) to the project managers via videoconference.
- **Planning/timetable:** A detailed timetable organizing the activities was drawn up. This timetable was validated for the implementation of the activities.
- **Document review:** To deepen the consultants' understanding of the project's objectives, a document review was carried out on the value chains in the study area.

Data collection in the field

To carry out this study, the value chain was analysed at the level of the actors in each support sector, identifying the direct and indirect actors in each commune to gather information on their activities, economic results, and distribution patterns.

Secondary data

These are data from documentation provided by (1) decentralised state technical agricultural services, statistical institutes, local administrations, etc., and (2) studies and reports by non-governmental organizations (NGOs) supporting the sector, information available to certain structures supporting the sector (agricultural research institutes, public universities, etc.), and farmers' organisations (cooperatives, associations, etc.).

Primary data

The primary data are those collected from the direct and indirect actors in the value chain. Direct actors are the producers and their households which cultivate the various products, the traders, and the processors. They contribute to the production, processing, and sale of products. Support services, otherwise known as indirect actors, include transporters, supervisory and research bodies, input suppliers, NGOs, etc. Indirect actors play a crucial role in the optimal functioning of the chain through their indirect support. The following were prioritized for this study: semi-structured interviews, focus group discussions, participatory observation, and structured interviews (survey).

The detailed survey phase made it possible to collect primary data enabling the analysis of the value chain at the level of the key actors in the chain, i.e. production, processing, and marketing.

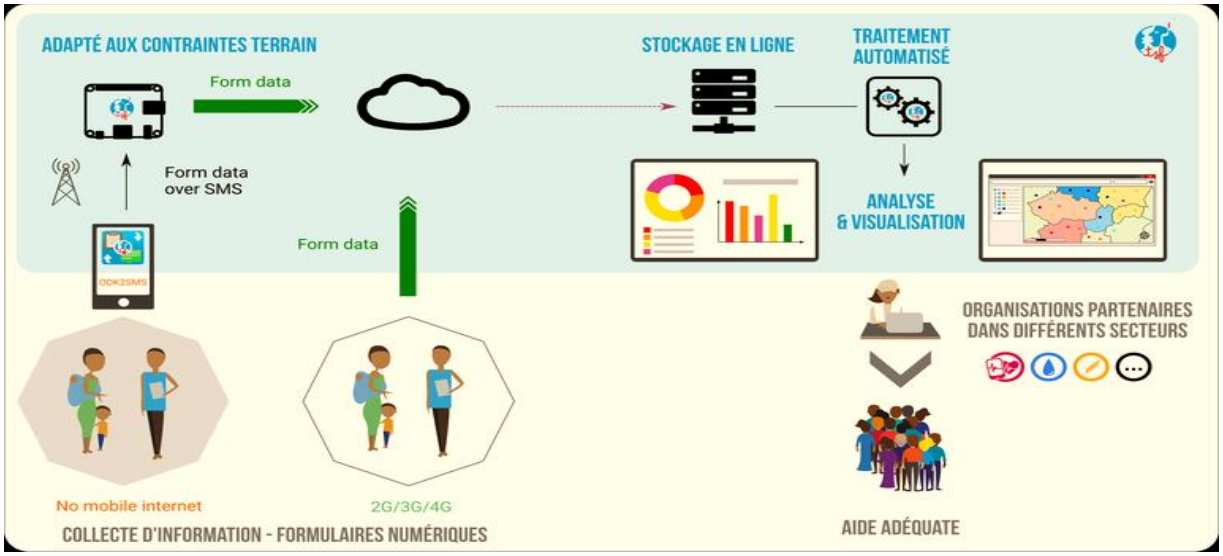
Figure 1: Primary data collection procedure

Phase	Objectives	Method	Participants
Preliminary phase	Scoping meeting and definition of the problem	Exploratory interviews	Indirect actors in the value chain (Public institutions, research institutes, etc.)
Detailed survey	Data collection on production, processing, and marketing	Participant observation, Survey	Direct actors (producers, processors, collectors, wholesalers, retailers)

Data collection tools

Questionnaires were coded into Kobo Collect software. The survey was conducted using tablets. Figure 2 below gives a summary of the data collection and processing phase.

Figure 2: Information gathering process with Kobo Collect



Two types of tools were used to collect the data: the questionnaire for surveys of key actors and the interview guide for interviews and focus group discussions with indirect actors in the value chain.

A. Stakeholder survey questionnaires: three types of questionnaires were used: one specific to producers, another specific to processors, and another for traders/retailers.

- **Farmers' questionnaire**: Collects data on farmers' profiles; the structure of farms for each crop; the method of access to land; the type of labour used; access to training and information; technical aspects of production and yield; relations with other stakeholders; farmers' assessments of production; and the main constraints.
- **Interviews with processors**: Collects data on the characteristics of the processing unit; the technical characteristics of the processing company; the sources of the product and its destination; operating accounts; relations with other actors in the chain; access to information and credit; and the main constraints.
- **Retailers' questionnaire**: Collects information on the type of trader; how the business is financed; how prices are set; where the product is bought and resold; customer profiles; costs and margins; relations with other actors; and the main constraints.

B. Interview guide tools: These include questions on the role played by indirect actors (transporters, input suppliers, NGOs, microfinance institutions, policymakers, research institutes, and extension services) in the chain.

Stratified random sampling

In a value chain analysis, producers who are also consumers are the benchmark or starting point for following dynamic interactions with other actors, which entail certain levels of compliance with various demands and preferences. To select producers for each crop (cowpeas, groundnuts, cassava, and small ruminants), it is necessary to count the number of specific farms and define a sampling size to give all the farms on the site an equal chance of selection. Processors, traders, and consumers were selected completely at random.

For each phase of data collection, a certain number of stakeholders were met, but the proportion of each category varied according to the type of information we wanted to obtain. This was the case for indirect actors.

These data were used to formulate strategies and recommendations that take into account the needs of the stakeholders. Based on the number of targets (400) to be covered by the project, i.e., 20 beneficiaries per village, and the limited time and resources available, 422 stakeholders were interviewed, including 197 producers, 32% of whom were women (64); 110 processors, 10% of whom were men; 83 traders, 89% of whom were men; and 32 professional tradespeople. These stakeholders were located in 20 villages in the four communes.

Figure 3: Sampling design by value chain and occupation

Municipality	Women	Men	Total

Producers			
Adjé Korya	20	29	49
Dan Goulbi	23	28	51
Ourno	13	36	49
Karofane	8	40	48
Total Producers	64	133	197
Retailers			
Adjé Korya	0	24	24
Dan Goulbi	0	25	25
Ourno	8	12	20
Karofane	1	13	14
Total retailers	9	74	83
Adjé Korya	26	0	26
Dan Goulbi	25	9	34
Ourno	22	0	22
Karofane	27	1	28
Total transformer	100	10	110
Distributors			
Dan Goulbi	0	4	4
Karofane	0	7	7
Ourno	6	9	15
Total fashion designer	0	26	26
Metal and woodworkers			
Adjé Korya	0	4	4
Dan Goulbi	0	1	1
Ourno	0	1	1
Total Metal joinery	0	6	6

Data analysis

The data collected was entered into an Excel spreadsheet and then analysed using SPSS 27 software. Descriptive statistics were used to define the characteristics of stakeholders in different value chains, by commune and by commodity chain. Depending on the analysis objectives, the variables were subjected to analyses of variance, the test of independence (chi-square), and the t-test for comparison of means to compare the data between the communes in the study area and the relationships between the variables. The data were also used for performance analysis (production, income, value-added, etc.).

Study limitations

The main limitations of this study relate to the system for gathering information from stakeholders, and this was based on declarative statements (such as the number of crops produced and the income from sales), but also on time and money, which meant that the study could not be carried out on a large scale. The

availability of producers is also one of the difficulties encountered, given the oncoming agricultural season. Despite these constraints, data concerning quantities produced and the income from sales were roughly estimated based on information provided by producers who kept accounts.

Policies and strategies for promoting value chains in Niger

The value chain is a concept introduced by Porter (1985), who explained that any output or final product comes from an input that has undergone several stages of transformation. This same concept was borrowed by agronomy to give rise to agricultural product value chains. Thus, the value chain for agricultural products (cowpeas, cassava, groundnuts, etc.) is the set of activities, including the supply of inputs, production, processing, transport, distribution, and sale, which add value to an agricultural product.

In Niger, policies and strategies to promote value chains generally aim to stimulate economic development by promoting the competitiveness of key sectors and inclusive growth (Adam, 2017; FAO, 2019; Harouna, 2020). Faced with structural challenges and growth opportunities, the Nigerien government is implementing various measures to strengthen these value chains. Firstly, Niger recognizes the crucial importance of infrastructure in facilitating the exchange of products along value chains. Ongoing investments in roads, water, and electricity networks, as well as warehouses and markets, have been made to ensure the connectivity and fluidity of trade (Guéro, 2016; World Bank, 2020).

Moreover, as agriculture plays a central role in Niger's economy, it is important to boost agricultural productivity and improve product quality through policies that support farmers. These include access to quality seeds, fertilisers, and modern farming practices, as well as training programs to enhance farmers' skills (Diallo and Touré, 2018; FAO, 2019).

Furthermore, access to finance is crucial if economic actors (households and private companies) are to prosper along value chains. The Nigerien government is therefore advocating policies to facilitate access to finance for these economic actors to enable them to invest in modern equipment, increase production capacity, and explore new markets.

Promoting innovation and technology is also a government priority to support value chains. By encouraging the adoption of modern technologies along value chains – such as food preservation techniques and efficient processing equipment – Niger is helping to improve the efficiency and competitiveness of value chain actors (Boubacar, 2019; Cissé and Bello, 2020).

The Nigerien government also recognises the importance of public-private partnerships to boost the development of value chains. It collaborates with the private sector and civil society organisations and NGOs to identify and effectively resolve the challenges associated with promoting value chains (Diallo and Touré, 2018). Finally, the promotion of product quality and certification is essential to secure consumer confidence and new opportunities in national and international markets.

It is expected that the implementation of these policies and strategies in a coherent and coordinated manner will help Niger to strengthen value chains, stimulate economic growth, and improve the living conditions of its population.

Non-timber agricultural and forestry products

Analysis of cowpea value chain

Production link

General characteristics of producers studied

Figure 4: Study participants by gender, by commune

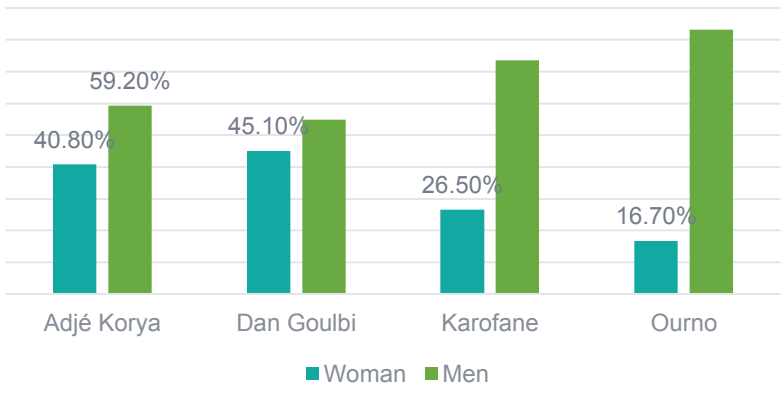


Figure 4 shows the distribution of study participants by gender in the communes covered. Men surveyed predominate in all the communes, accounting for 83.30%, 73.50%, 59.20%, and 54.90%, respectively, in Ourno, Karofane, Adjé Korya, and Dan Goulbi.

The results in Figure 5 illustrate the average age and dependents of study participants. An average age of 45.4 years was recorded for the sample as a whole. In Karofane (48.53), the average age is higher than the sample average, while it is lower in Dan Goulbi (42.9). The average household size is 11.66 persons in the general sample. Within communes, household size is higher in Dan Goulbi (15.08) and Adjé Korya than in communes in the Tahoua region.

Figure 5: Average age and dependants by commune

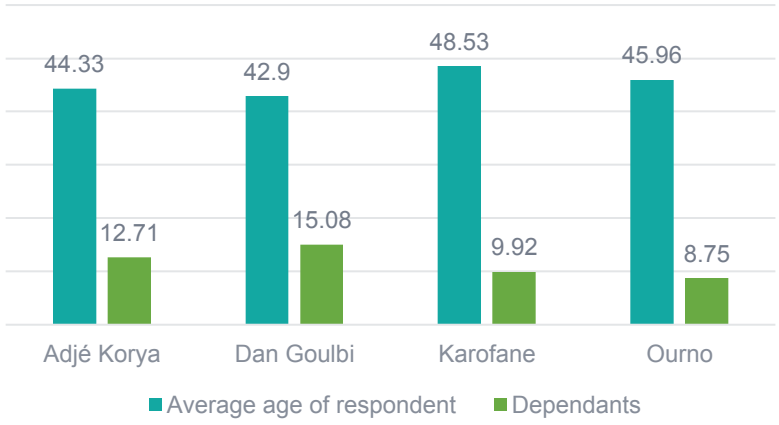


Figure 6 shows the educational levels of study participants. A large number of participants are illiterate in the communes of Adjé Korya and Dan Goulbi (30.30% and 40.70%, respectively). On the other hand, over 60% of participants are literate in the commune of Ourno. It should also be noted that many of the participants had completed secondary education in all the communes. In terms of ethnicity, almost all participants are Hausa, with some Kanuri, Peulh, and Touareg, as shown in Figure 7 below. In the communes of Adjé Korya and Dan Goulbi in the Maradi region, most respondents work on collective farms, with 47.60% of responses in each commune, as shown in Figure 8 below. Individual farms predominate over collective farms in the communes of Karofane (27.40%) and Ourno (26.90%). It should also be noted that there are few public farms in the commune of Ourno.

Figure 6: Participants' levels of education, by commune

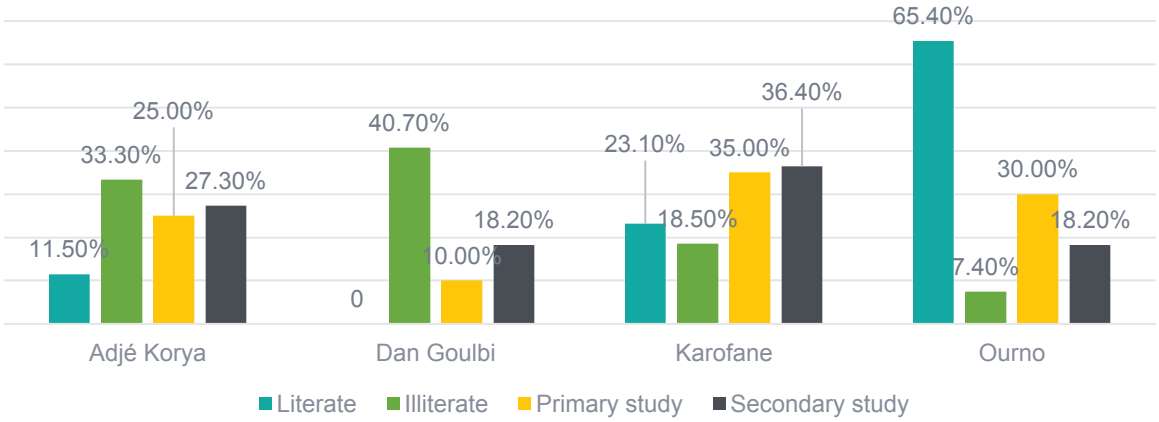
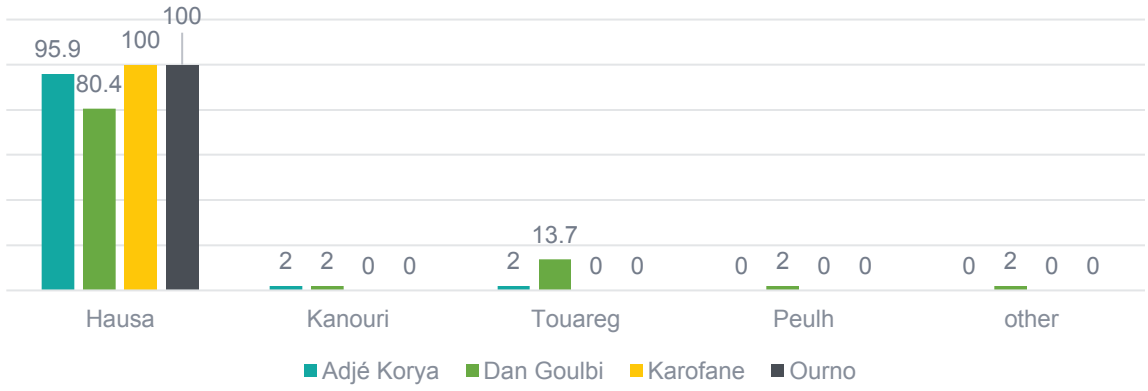
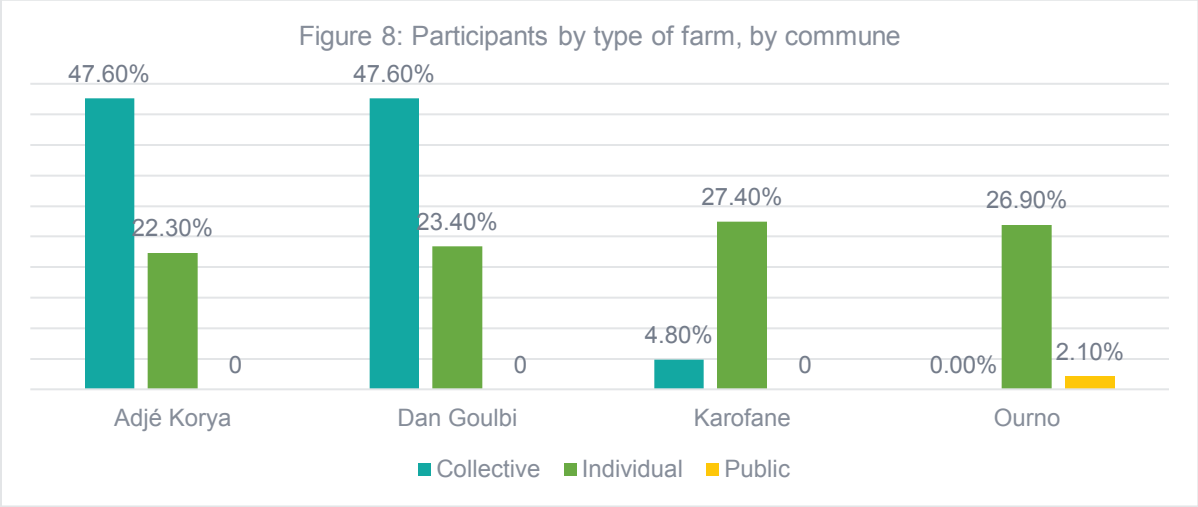


Figure 7: Participants by ethnic group, by commune





Main crops grown by participants are shown in Figure 9. However, the main crops grown by producers in all communes are cowpea, millet, groundnuts, and sorghum, with 96.40%, 93.40%, 71.60%, and 64% of participants, respectively. A small proportion of participants grew souchet and sorrel in the communes of Adjé Korya and Dan Goulbi. All the producers surveyed in the communes of Adjé Korya and Ourno grow cowpeas, while groundnuts are grown more in the commune of Dan Goulbi.

Figure 9: Crops grown by participants, by commune (%)

Speculation	Adjé Korya	Dan Goulbi	Karofane	Ourno	Average	Chi-square	p-value
Mil	98.00	98.00	89.80	87.50	93.40	7.17	0.06
Sorghum	77.60	66.70	55.10	56.30	64.00	6.99	0.07
Cowpeas	100.00	92.20	93.90	100.00	96.40	7.25	0.06
Peanut	30.60	98.00	83.70	72.90	71.60	61.53	0.00
Souchet	4.10	5.90	0.00	0.00	2.50	5.30	0.15
Sesame	14.30	9.80	2.00	0.00	6.60	10.59	0.01
Sorrel	22.40	21.60	0.00	0.00	11.20	24.04	0.00
Other	6.10	7.80	10.20	0.00	6.10	4.83	0.18

Analysis of production and income from cowpea sales

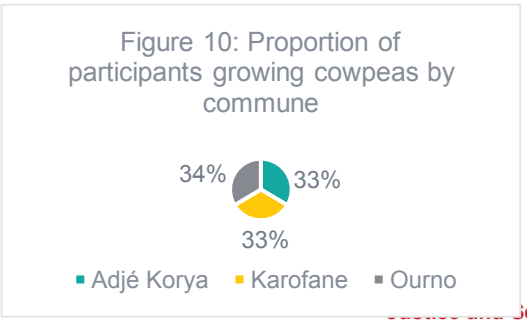
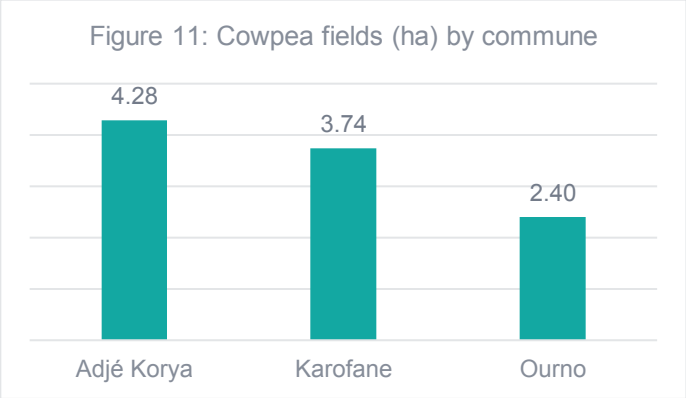


Figure 10 on the left shows that almost all the producers surveyed grow cowpeas, except for those in the commune of Dan Goulbi. Cowpea production is one of the promising value chains identified in the JASS intervention zones in both regions.

The average area devoted to cowpea cultivation per commune is 4.28 ha; 2.74 ha in Karofane, and 2.40 ha in Ourno, as shown in Figure 11 to the right.



The average quantities of cowpeas produced by respondents are shown in Figure 12 below. It shows that the quantities are respectively 93.46 kg in Karofane, 88.29 kg in Adjé Korya, and 53.79 kg in Ourno. It also shows that the average yield per hectare is 294 kg, well below the potential yield (1 tonne per hectare). The average quantities for sale were 82.08 kg, 59.8 kg, and 47.5 kg, respectively, for the communes of Karofane, Adjé Korya, and Ourno.

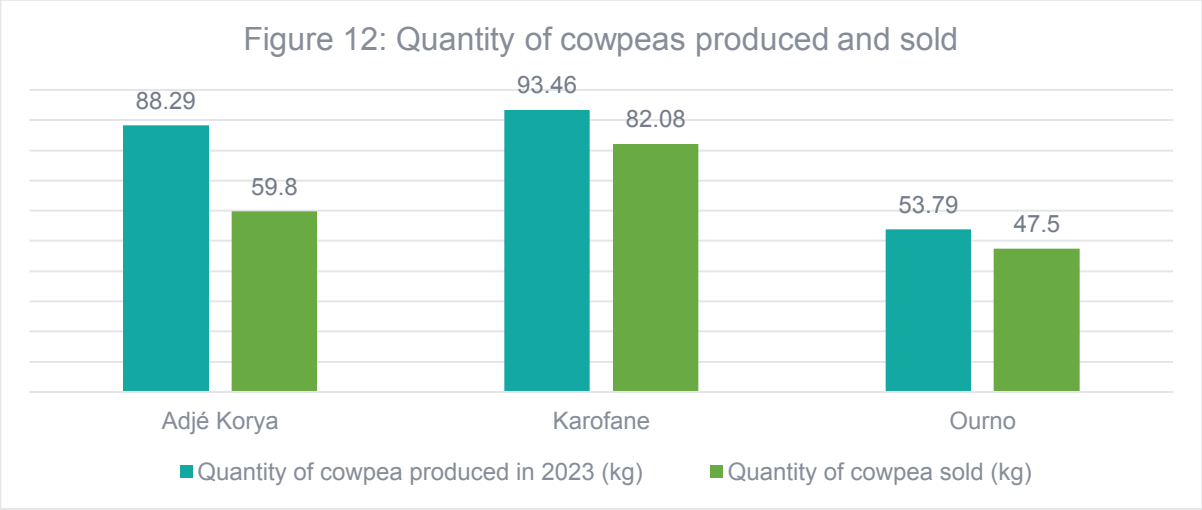
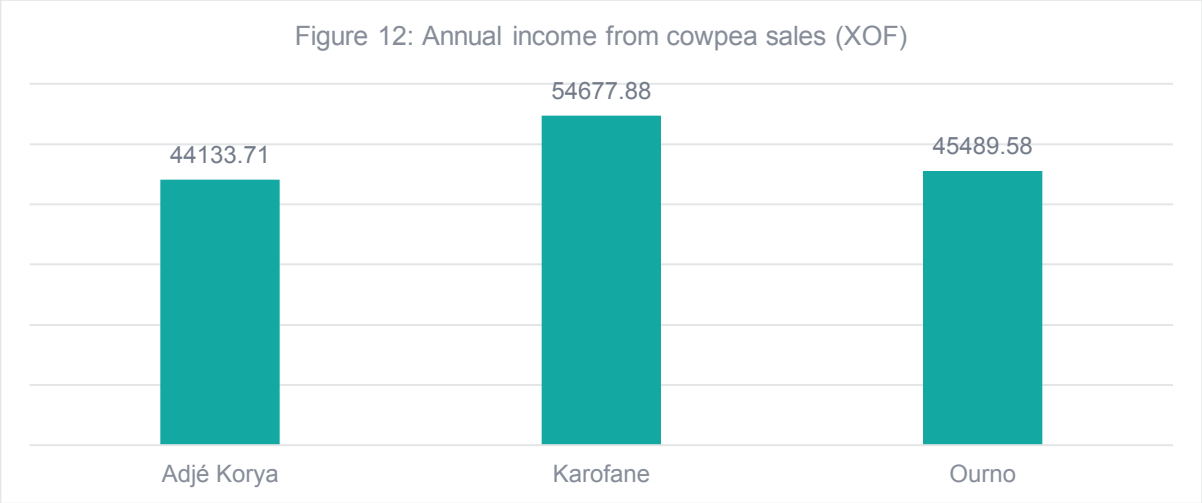


Figure 12 shows that annual income from cowpea sales was XOF 54,677 in Karofane, XOF 45,489 fin Adjé Korya, and XOF 41,133 in Ourno.



Storage and conservation link

The results in Figure 13 show farmers' different methods for storing cowpeas. Producers mainly use ordinary sacks and PICS sacks to store cowpeas. Notably, the ordinary sack is used more in the communes of Adjé and Karofane by 63.30 % and 53.10% of producers, respectively. As for the PICS sack, it is mainly used in the commune of Ourno by 58.30% of producers. Other methods, such as the use of cans and barrels, are not widely used by producers. Figure 14 below shows that 52.30% and 23.40% of producers use the room in the main house and the roof of the house, respectively, for storing cowpeas. It also shows that 11.7% store their cowpea production in another house with someone they trust within their communes.

Figure 13: Cowpea storage methods by commune (%)

	Adjé Korya	Karofane	Ourno	Average	Chi-square	p-value
PICS sacks	16.30	53.10	58.30	31.50	55.28	0,000
Barrel	2.00	0.00	0.00	0.50	3,03	0,38
Can	16.30	10.20	8.30	8.60	8,65	0,03
Ordinary bags	63.30	53.10	35.40	38.10	46,21	0,000
Other	20.40	0.00	0.00	5.10	31,81	0,001

Figure 14: Cowpea storage sites by commune (%)

Storage location	Adjé Korya	Dan Goulbi	Karofane	Ourno	Average
Bedroom in the main house	42.90	5.90	75.50	87.50	52.30
Room in another house	10.20	0	16.30	20.80	11.70
Straw loft	6.10	0.00	6.10	8.30	5.10
Attic in banco	18.40	0.00	4.10	6.30	7.10
On the roof	26.50	0.00	24.50	43.80	23.40
In the courtyard	14.30	0.00	0.00	0.00	3.60

Cowpea cultivation faces constraints that limit its production in the study communes. Respondents' views on cowpea harvest losses are shown in Figure 15. In the communes of Karofane and Ourno, at least 95% of producers suffer losses from cowpea cultivation. In the commune of Adjé Korya, around 57% said they had suffered harvest losses. Figure 16 below shows that 55.8% and 53.8% of these losses are linked to insect pests and grain rot, on average.

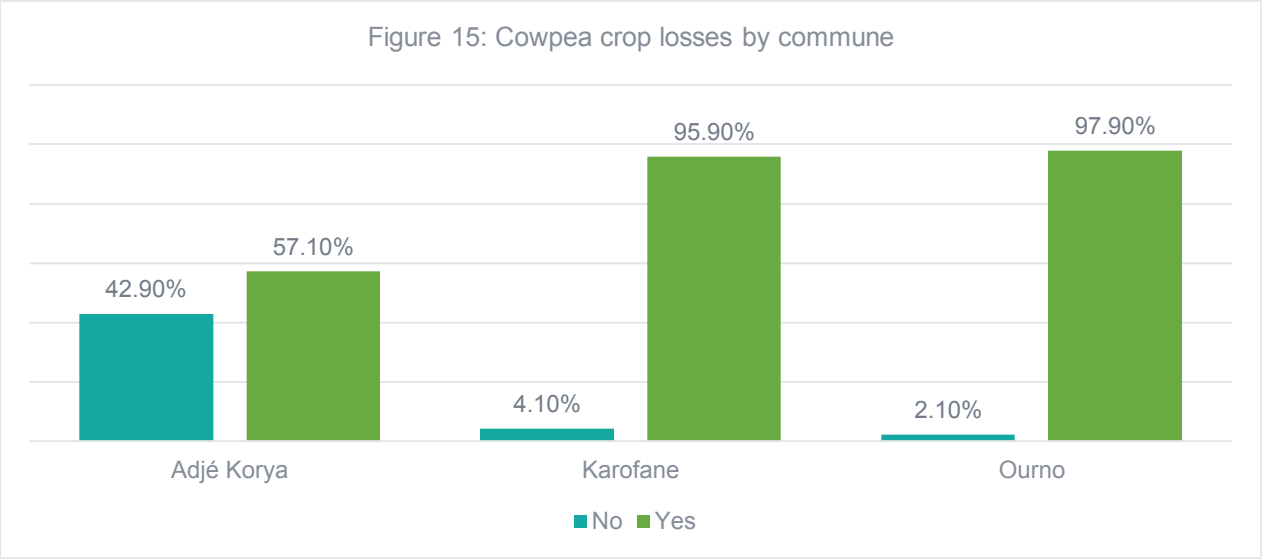


Figure 16: Main causes of cowpea losses by commune (%)

	Adjé Korya	Karofane	Ourno	Average	Chi-square	p-value
Insect pests	55.10	75.50	91.70	55.80	88,43	0,000
Rotten seeds	38.80	79.60	97.90	53.80	110,29	0,000
Grain/feed quickly	0.00	32.70	58.30	22.30	67,62	0,000
Other	12.20	0.00	0.00	3.00	18,69	0,000

Marketing link

Figure 17 below shows the markets where cowpea traders buy cowpeas in each commune. It shows that 35% and 28.6% of traders in the communes of Karofane and Ourno buy their cowpeas mainly at the Ourno market, respectively. Figure 17 also shows that 47.8% of traders in the commune of Adjé Korya obtain their supplies mainly from the village market.

Figure 18 shows that the main actors from whom cowpeas are purchased are producers and collectors, with average percentages of 47.5% and 7.58% respectively.

Figure 19 shows the proportions of actors to whom cowpeas are resold. They are 33% wholesalers/intermediaries, 17.9% processors, and 16.7% consumers.

According to 80% of respondents in the commune of Adjé Korya, a small group of traders makes the decision as to whom to sell cowpeas. In the communes of Karofane and Ourno, 40% of respondents believe that the decision rests with the traders themselves.

Figure 17: Markets where traders buy cowpeas, by commune (%)

	Adjé Korya	Karofane	Ourno	Average	Chi-square	p-value
Kornaka	4.20	0	0	1.20	2,53	0,63
Mayake	8.30	0	0	2.40	5,12	0,27
Village market	45.80	5.00	7.10	15.50	24,09	0,000
Ourno	16.70	35.00	28.60	17.90	10,77	0,029
Other	50.00	5.00	28.60	21.40	20,05	0,000

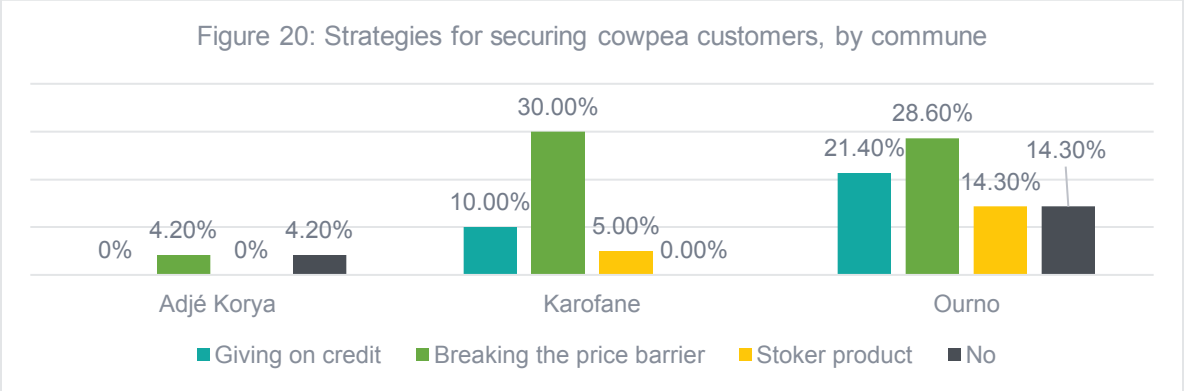
Figure 18: Stakeholders from whom cowpeas are purchased, by the commune (%)

	Adjé Korya	Karofane	Ourno	Average	Chi-square	p-value
Producers	95.80	35.00	42.90	42.90	47,50	0,000
Collectors	20.80	5.00	7.10	8.30	7,59	0,10
Wholesalers/intermediaries	8.30	0.0	14.30	4.80	5,77	0,21
Consumers	8.30	5.00	7.10	4.80	2,15	0,70
Transformers	4.20	0.00	14.30	3.60	6,39	0,17

Figure 19: Actors to whom cowpeas are sold, by the commune (%)

	Adjé Korya	Karofane	Ourno	Average	Chi-square	p-value
Producers	4.20	30.00	28.60	13.10	13,56	0,009
Collectors	29.20	5.00	7.10	10.70	12,53	0,014
Wholesalers/intermediaries	87.50	5.00	42.90	33.30	52,48	0,000
Consumers	8.30	35.00	35.70	16.70	14,89	0,005
Transformers	16.70	30.00	35.70	17.90	10,72	0,030
Other	0.00	0.00	7.10	2.40	2,74	0,60

Figure 20 below shows the strategies adopted to market cowpeas. The main strategies used by traders to secure customers are to "undercut the price" and "sell on credit." In the communes of Karofane and Ourno, respectively, 30% and 28.6% use the strategy of undercutting the price, while 10% and 21% sell on credit.



When it comes to determining the price of cowpea, it is mainly a small group of traders and buyers who decide in the commune of Adjé Korya. In the communes of Karofane and Ourno, it is the traders themselves who set the prices. The factors that determine the price of cowpeas are the quality of the product and, according to study participants, negotiation.

Figure 21 below shows that traders have access to information on cowpea prices. Only a small proportion of respondents in the commune of Karofane do not have access to such information. Figure 22 shows that 35.7% of traders use mobile phones to find out about prices, while 35% get information on the spot at the market in all communes. The use of radio and intermediaries to obtain cowpea prices is low.

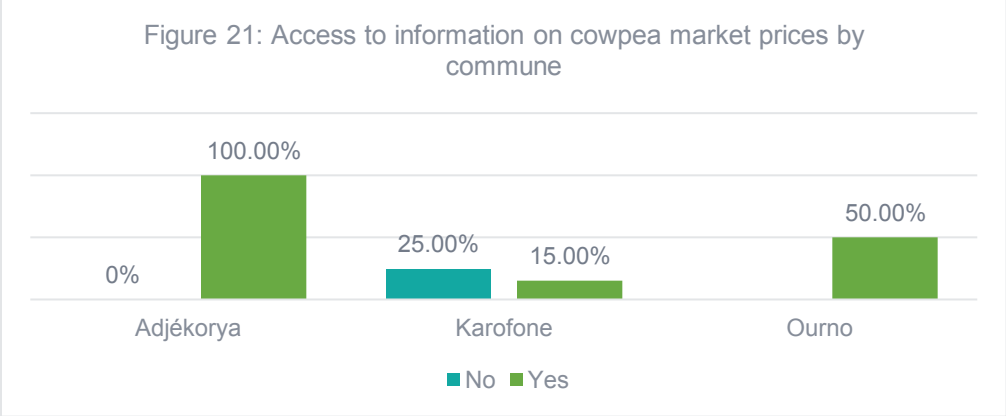


Figure 22: Channels for obtaining market prices for cowpeas, by commune (%)

	Adjé Korya	Karofane	Ourno	Average	Chi-square	p-value
Mobile phone	100.00	15.00	21.40	35.70	62,62	0,000
Radio	0	0	14.30	2.40	10,24	0,037
Intermediate	4.20	0.00	14.30	3.60	6,39	0,172
At the market	100.00	10.00	28.60	35.70	63,71	0,000
Other	0.00	15.00	0.00	4.80	6,60	0,158

Processing link

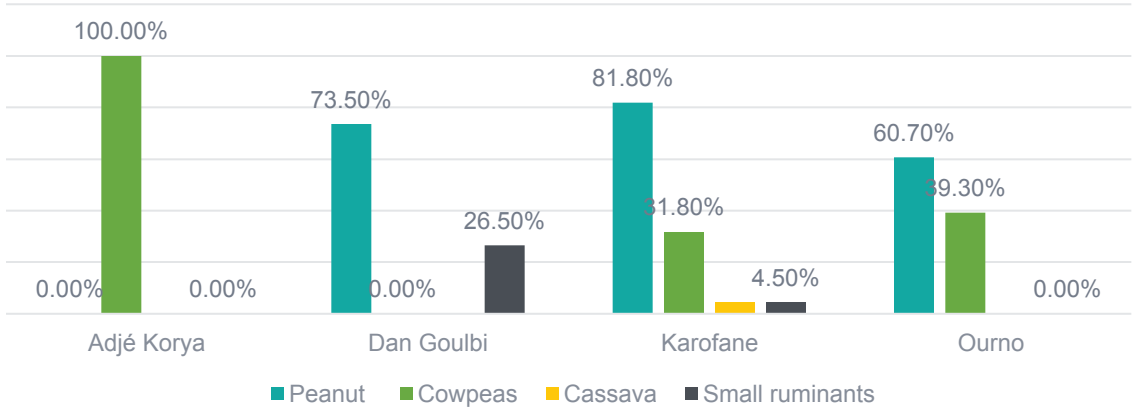
Socio-demographic characteristics of study participants

This section presents the characteristics of the processors involved in this study in the four communes. In the communes of Adjé Korya and Karofane, all processors of agricultural products are women. who process agricultural products. In Dan Goulbi and Ourno communes, respectively, 73% and 96% of processors are women.

Processors use several sources to finance their activities. It emerged that at least 20% of processors use credit to finance their activities, while at least 20% and 16% of them finance through profit from previous sales and by selling part of their assets. It should be noted that some processors, whose proportions are negligible, have financed themselves through gifts and inheritance.

Figure 23 below shows the products processed in each commune. It shows that cowpeas and groundnuts are the most processed products in Dan Goulbi, Karofane, and Ourno. It also shows that cassava and small ruminants are the least processed products. Cassava is only processed in the commune of Karofane by 5% of study participants.

Figure 23: Products processed by communes



SWOT analysis for cowpea value chain

Link	Strengths	Weaknesses
Production	Area favourable to production Product profitability Accessible to all social categories Not too demanding in terms of water and fertiliser	No access to new production technologies No mastery of production techniques Low investment Issues accessing routes to markets Heavy parasite presence in the fields

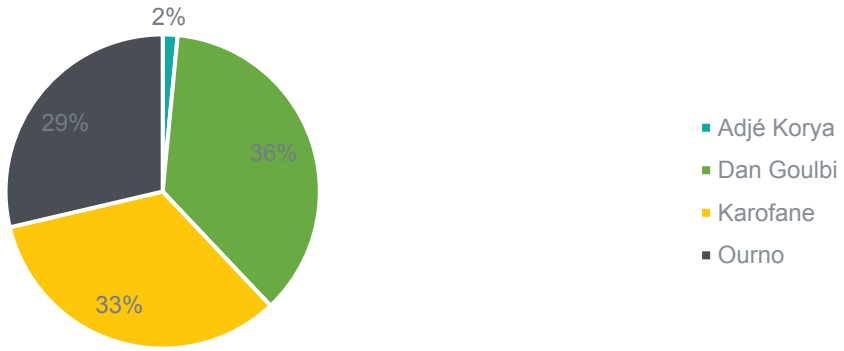
		Considerable damage during storage Costs and unavailability of agricultural inputs (treatment products, fertilisers)
Marketing	Knowledge of the market Product in high demand	Non-organisation of producers Opportunities abroad Price volatility No access to microcredit Decline in product quality
Storage	Stock rarely attacked by insect pests Increase in the value of products during periods of high market prices	Decline in grain quality
Consumption	Highly nutritious Easily convertible	This product is not widely used by the local population Lack of sesame processors
Link	**Opportunities**	**Threats**
Production	Availability of arable land New crop in the area	Soil poverty Attack by insect pests
Marketing	Market availability in Nigeria Market demand is growing	Insecurity Closing borders
Storage	Availability of hermetic storage technology	Fall in product value in certain exceptional years
Consumption	Several sesame-based recipes are available	Low household purchasing power

Analysis of groundnut value chain

Production link

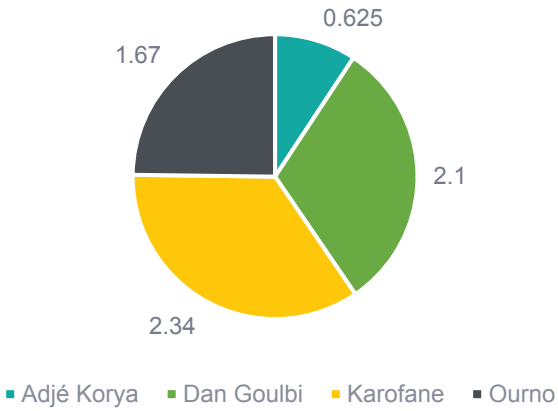
Groundnuts are one of the promising value chains identified as part of Mercy Corps activities in the Maradi and Tahoua regions. Figure 24 shows the proportions of producers growing groundnuts in the four communes. The proportions of study participants growing groundnuts in the communes of Dan Goulbi, Karofane, and Ourno were 98%, 89%, and 77% respectively.

Figure 24: Proportion of study participants who grow groundnuts by commune



The average size of fields planted with groundnuts were 2.34 ha in Karofane, 2.1 ha 0 in Dan Goulbi, and 1.67 ha in Ourno, as shown in Figure 25.

Figure 25: Average groundnut field size by commune (ha)



Analysis of production and income from groundnut sales

During the last crop year, the average number of bags produced was 7.46 in the commune of Karofane, 6.72 bags in Dan Goulbi, and 5.1 bags in Ourno, as shown in Figure 26 below. Of the quantity produced per commune, more than 90% is intended for sale. Figure 27 also shows an average annual income for producers of XOF 81,744 in Dan Goulbi in the Maradi region; XOF 57,114 in Karofane, and XOF 54,432 in Ourno in the Tahoua region.

Figure 26: Quantity of bags of groundnuts produced and sold by commune

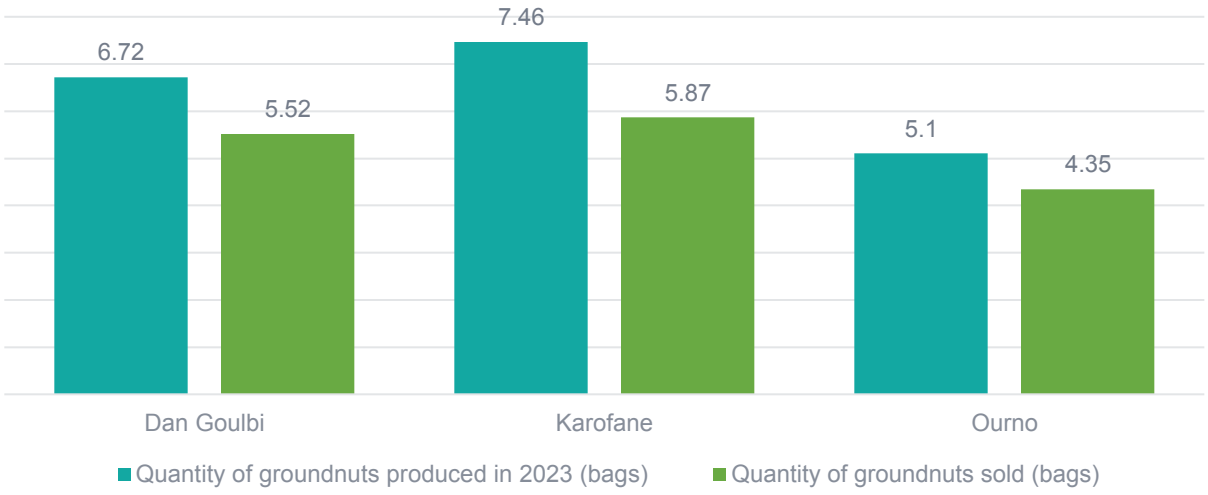
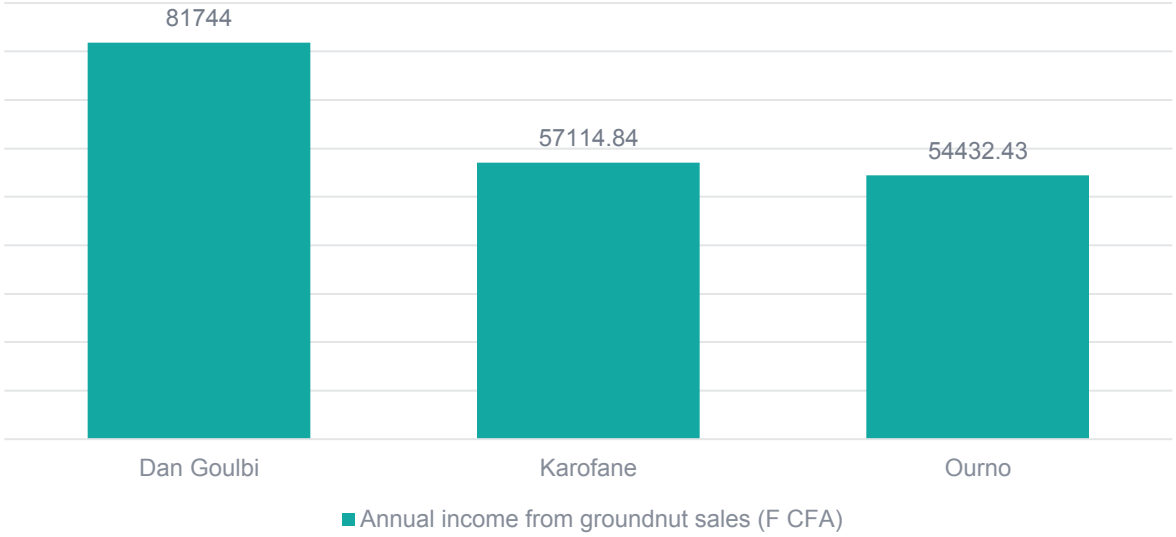


Figure 27: Annual income from groundnut sales (XOF)



Storage and preservation link

Ordinary bags are the most widely used for storing groundnuts across all communes. On the other hand, the technology of PICS bags is used by producers in the communes of Karofane and Ourno in proportions of 36.70% and 35.40% respectively. The source of supply of PICS bags is essentially purchase, according to groundnut producers, but a small number receive them as gifts in the commune of Karofane.

Storage for agricultural products

Storage facilities depend on storage needs, but also on the nature or importance of the crop. 70.17% of respondents said that they generally stored their groundnuts in the bedrooms of their main house, and 12.2% on the hull roof. So, the location of storage is linked to the type of crop and its value.

Figure 28: Groundnut storage sites by commune (%)

	Dan Goulbi	Karofane	Ourno	Average
Bedroom in the main house	33.30	73.50	68.80	70,17
Room in another house	3.90	8.20	12.50	6.60
Straw loft	9.80	4.10	2.10	4.10
Attic in banco	13.70	8.20	8.30	7.60
On the roof	2.00	18.40	29.20	12.20
In the courtyard	5.90	0.00	0.00	2.00

The proportions of producers participating in the study who habitually record losses are shown in Figure 29. Over 80% of respondents said that they had suffered losses from groundnut cultivation in the communes of Karofane and Ourno. According to producers, these losses are around 15% in the villages of the commune of Dan Goulbi.

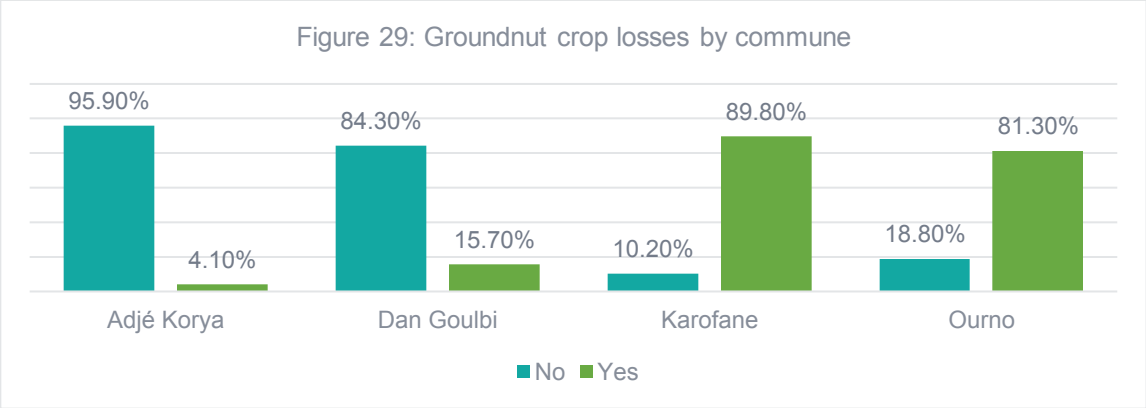


Figure 30 below shows that the main causes of groundnut crop losses are grain rot (41.60%) and insect pests (39.10%).

Figure 30: Main causes of groundnut losses by commune (%)

Conditions	Adjé Korya	Dan Goulbi	Karofane	Ourno	Average
Insect pests	2.00	7.80	75.50	72.90	39.10
Rotten seeds	0.00	9.80	79.60	79.20	41.60
Grain/feed quickly	0.00	0.00	22.40	39.60	15.20
Other	2.00	5.90	2.00	0.00	2.50

Transformation link

Figure 31 below shows the proportions of study participants who process groundnuts. Thus, 77% and 73% of groundnut processors come from the communes of Dan Goulbi and Karofane respectively, compared with 60% of processors from Ourno.

Figure 31: Proportion of respondents who process groundnuts, by commune

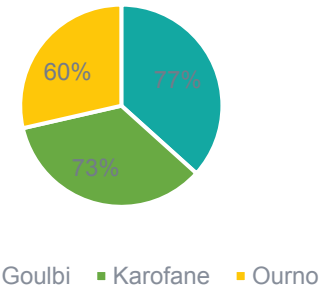
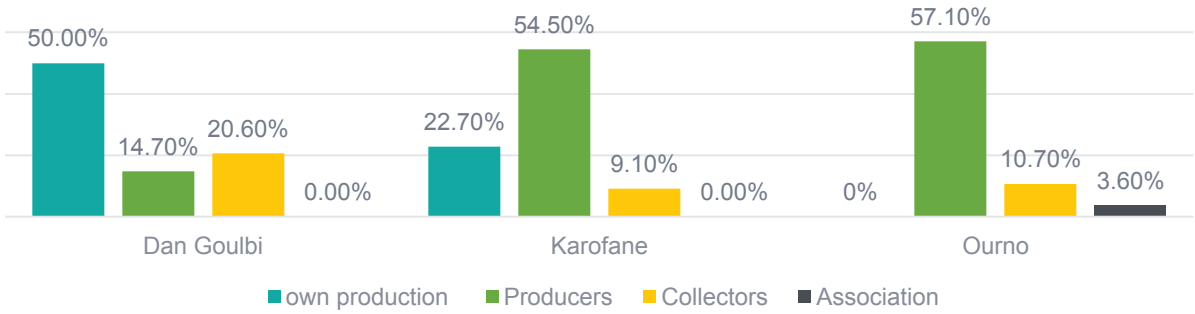


Figure 32 below shows that at least 50% of groundnuts come mainly from producers in the communes of Karofane and Ourno, while over 20% of processed groundnuts come from their own production in the communes of Dan Goulbi and Karofane. It also shows that at least 10% of the groundnuts processed in the three communes come from wholesale.

Figure 32: Origin of groundnuts processed by respodents, by commune



Processing is most often carried out at the household level for family consumption. The manual method used employs a mortar and pestle to obtain oil and cake. Groundnut cake is a by-product of oil production, used by households for food. Here, the groundnuts are placed in large mortars, and the women, using very heavy pestles, mix them to produce the finished product.

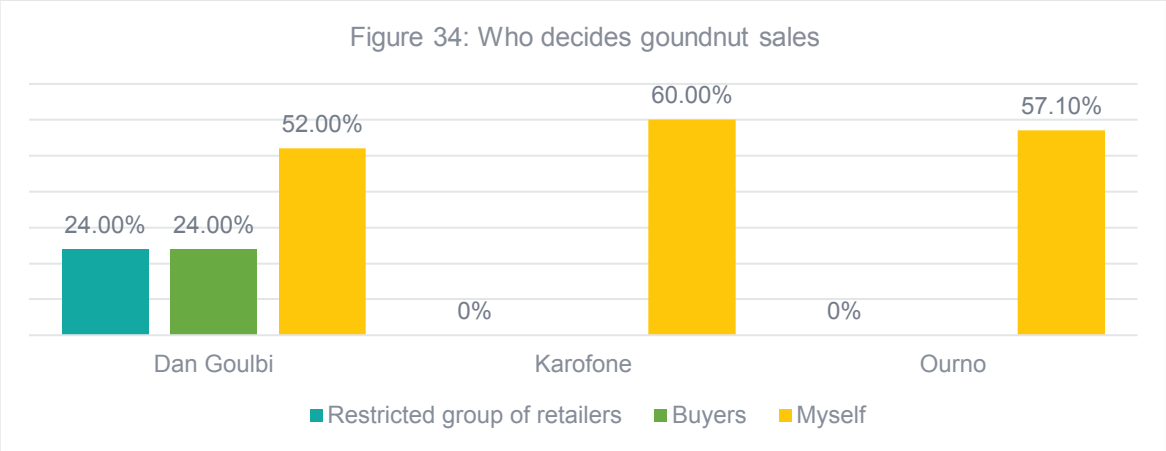
"From each bag of groundnuts, they can extract 7 to 10 litres of oil. If the groundnuts are of good quality and well processed, you can get more out of them."

Marketing link

Markets used by traders to buy groundnuts are shown in Figure 33. Traders in the commune of Dan Goulbi buy most of their groundnuts at the Mayake market (76%) and the Dan Goulbi market (44%). Traders also buy groundnuts from the Ourno market (57.10%) and the Karofane market (50%). The actors from whom groundnuts are purchased are producers (50%) and wholesale retailers (11.90%). Traders resell groundnuts to processors (41.70%), wholesaler retailers/intermediaries (27.40%), consumers (25%), and other traders (19%). Groundnuts are sold much more by women processors. The results also show that the decision to sell groundnuts rests with the owner of the product, according to more than 50% of respondents in the three communes, as shown in Figure 34. The decision-makers also include a small group of traders and buyers.

Figure 33: Markets where traders buy groundnut products

Market	Dan Goulbi	Karofane	Ourno	% Medium	Chi-square	p-value
Mayake	76.00	0	7.10	23.80	53,74	0,000
Market	4.00	5.00	7.10	3.60	1,57	0,81
Dan Goulbi	44.00	0.00	7.10	14.30	26,11	0,000
Madaoua	20.00	0.00	0.00	6.00	12,54	0,014
Ourno	12.00	50.00	57.10	25.00	24,96	0,000
Other	48.00	20.00	21.40	22.60	16,59	0,002



The main strategies used by traders to draw customers are to undercut the price and sell on credit, across all communes. There is also the strategy of storing the product for a period to cut supply, in the communes of Karofane and Ourno. However, the decision on the selling price of groundnuts rests mainly with the traders in all the communes included in the study. It should also be noted that the price of groundnuts is

sometimes set by negotiation between actors, in which the quality of the product is a factor. According to results presented in Figure 35, overall groundnut prices are set by negotiation.

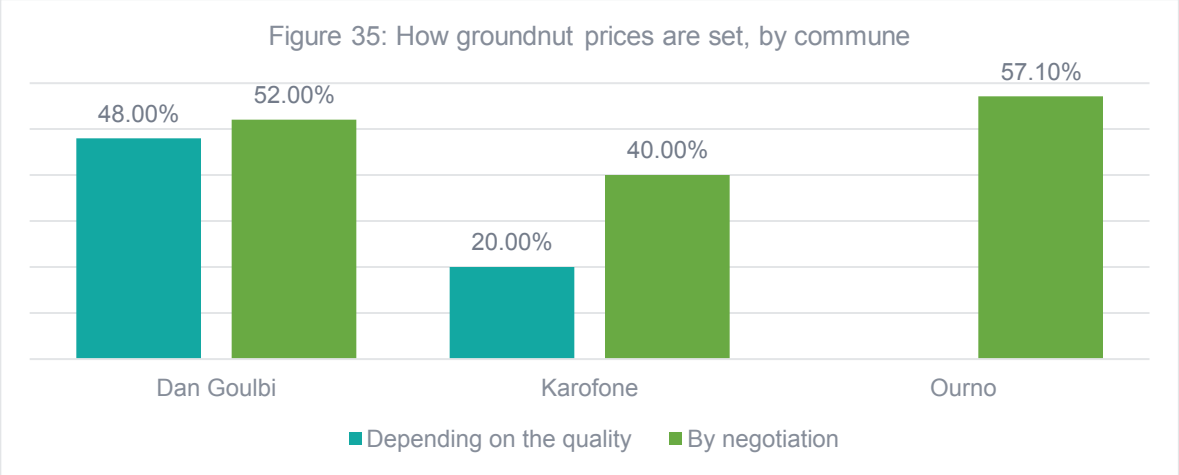


Figure 36 shows the proportions of groundnut traders with mobile phones. However, 88% of respondents in the commune of Dan Goulbi, 42.90% in Ourno, and 35% in Karofane have a mobile phone (Figure 37). The mobile phone is the second main means used by traders to find out the price of groundnuts, after the 'on the market' channel, in all the communes. The annual quantity of groundnuts sold varies from 6,570.24 kg to 11,085 kg across the four communes, illustrated in Figure 38 below.

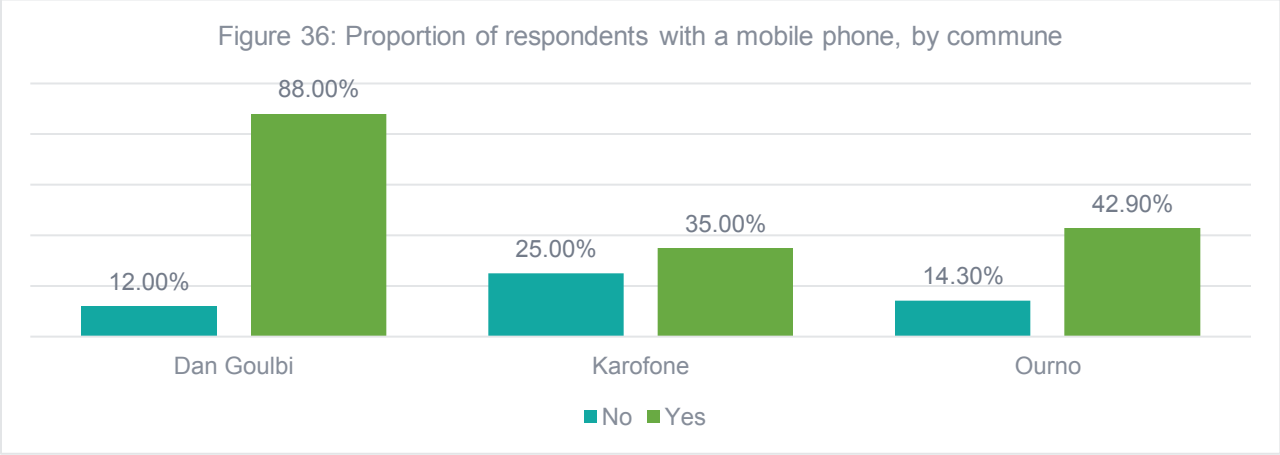
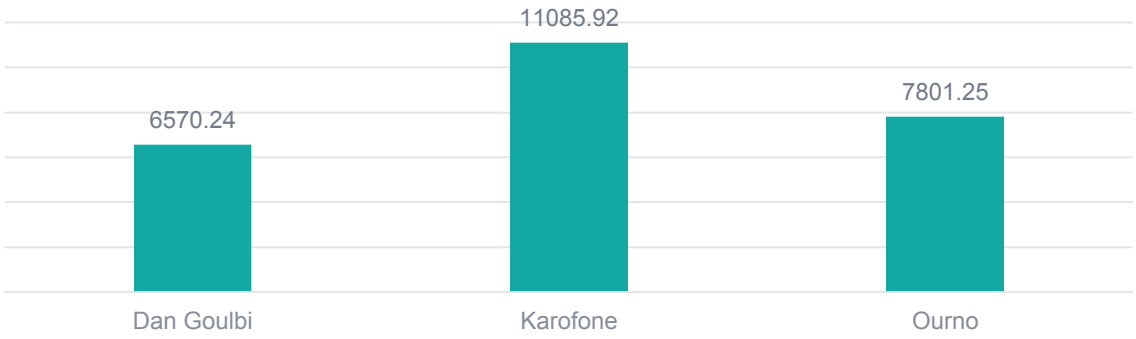


Figure 37: Channels of information on groundnut prices (%)

Channels	Dan Goulbi	Karofane	Ourno	Average
Mobile phone	88.00	0	28.60	31.00
Radio	4.00	10.00	21.40	7.10
Intermediate	0.00	0.00	21.40	3.60
On the market	92.00	30.00	35.70	40.50
Other	0.00	25.00	0.00	6.00

Figure 38: Quantity of groundnuts purchased per year for sale (kg)



SWOT analysis for groundnut value chain

Link	Strengths	Weaknesses
Production	Area favourable to production Product profitability Accessible to all social categories Ease of flow Not too demanding in terms of water and fertiliser	Attack by insect pests Soil poverty No access to new production technologies No mastery of production techniques Low investment Issues accessing routes to markets
Marketing	Market knowledge Product in high demand	Non-organisation of producers Opportunities abroad Price volatility No access to microcredit Decline in product quality
Storage	Stock rarely attacked by insect pests Increase in the value of products during periods of high market prices	Decline in grain quality
Transformation	Highly nutritious Easily convertible.	Product is not widely used by the local population
Link	**Opportunities**	**Threats**
Production	Availability of arable land New crop in the area	Soil poverty Attack by insect pests
Marketing	Market availability in Nigeria Market demand is growing	Insecurity Closing borders
Storage	Availability of hermetic storage technology	Fall in product value in certain exceptional years

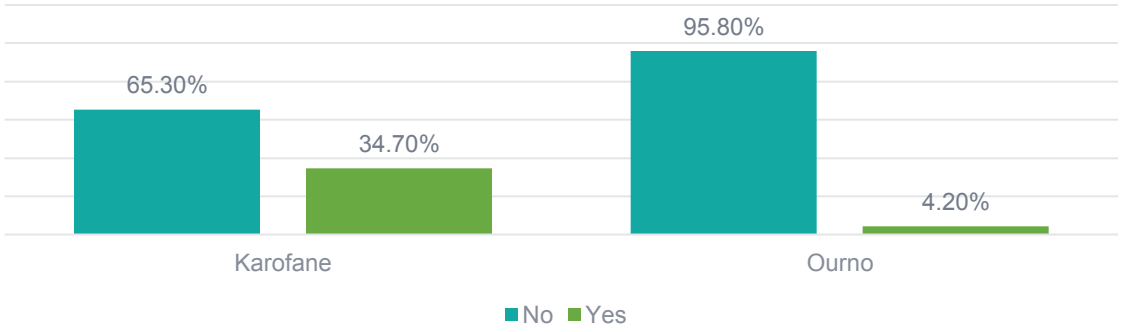
Consumption	Several sesame-based recipes are available	Low household purchasing power

Analysis of cassava value chain

Production link

Cassava cultivation is one of the promising value chains identified in the previous diagnostic study. Figure 39 shows the proportions of study participants growing cassava. It shows that 34.70% and around 5% of respondents grow cassava in the communes of Karofane and Ourno, respectively. The area devoted to this crop is 1.68 ha in Karofane and less than 0.25 ha in Ourno. Annual income from the sale of cassava averages XOF 50,000 in the commune of Karofane and is insignificant in the commune of Ourno since a large proportion of production is for domestic consumption.

Figure 39: Proportion of respondents growing cassava, by commune



Storage/conservation link

The main methods of storing cassava are provided in Figure 40. Two main types of containers are used for storage; 23.90% of storage is in ordinary bags and 11.70% in PICS bags. It should be noted that these two types of bags are used mainly by producers in the communes of Karofane and Ourno. Cassava is mainly stored in a room in the main house of the producer in the commune of Karofane.

Figure 40: Cassava storage methods by commune (%)			
	Karofane	**Ourno**	**Average**
PICS bags	32.70	12.50	11.70
Barrel	0.00	0.00	0.00
Can	0.00	2.10	0.50
Anza	0.00	0.00	0.00
Ordinary bags	46.90	39.60	23.90
Other	24.50	45.80	40.10

Figure 41 shows the proportions of producers who usually suffer losses cultivating cassava. It shows that 40% and 23% had suffered cassava losses in the communes of Karofane and Ourno, respectively. These losses were mainly due to insect pests, especially in the commune of Karofane.

Figure 41: Proportion of respondents who suffered crop losses on cassava, by commune

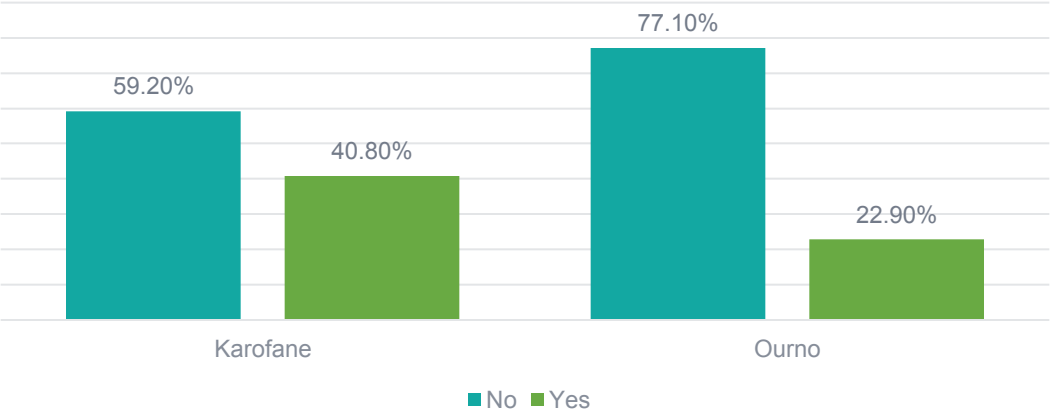


Figure 42 shows that insect pests are the cause of losses suffered by 32.70% and 18.8% of producers in the communes of Karofane and Ourno, respectively. Losses due to tuber rot also affected 18.4% and 20.8% of producers in the communes of Karofane and Ourno, respectively.

Figure 42: Main causes of cassava losses by commune (%)

Condition	Karofane	Ourno	Average
Insect pests	32.70%	18.80%	12.70%
Rot (tubers)	18.40%	20.80%	9.60%
Other	8.20%	4.20%	3.00%

Transformation link

Cassava tubers are processed on the farm. The products produced are boiled cassava, flour or gari, and the local galette. Over 70% of respondents cited boiling as the most popular processing method. Cassava tubers are processed into either gari or pancakes. Gari is collected for sale locally or in the nearest towns.

The most frequently cited constraints are poor sales of processed products and insufficient technical and financial resources for processing. The lack of sales is due to competition from similar products such as gari from countries in the sub-region, which are cheaper and of better quality. Other constraints are related to the lack of training for gari processors.

Marketing link

There are not enough traders in the marketing link of the cassava value chain. The markets in the villages of Karofane and Ourno are the main sources of supply for these traders; 15% of cassava purchases are made in Karofane, compared with 7% in Ourno. The traders sell this cassava very easily to consumers and a few wholesale retailers. They set their own prices in these communes. The strategies used in cassava marketing to attract customers consist of selling on credit or undercutting the price, as shown in Figure 43 below. Furthermore, Figure 44 below shows that price levels are determined by the quality of the cassava tubers and by negotiation. In Karofane commune, 2,359 kg of cassava are purchased per year for sale, whilst in Ourno, 3,000 kg are purchased for sale annually.

Figure 43: Strategies for obtaining cassava customers, by commune

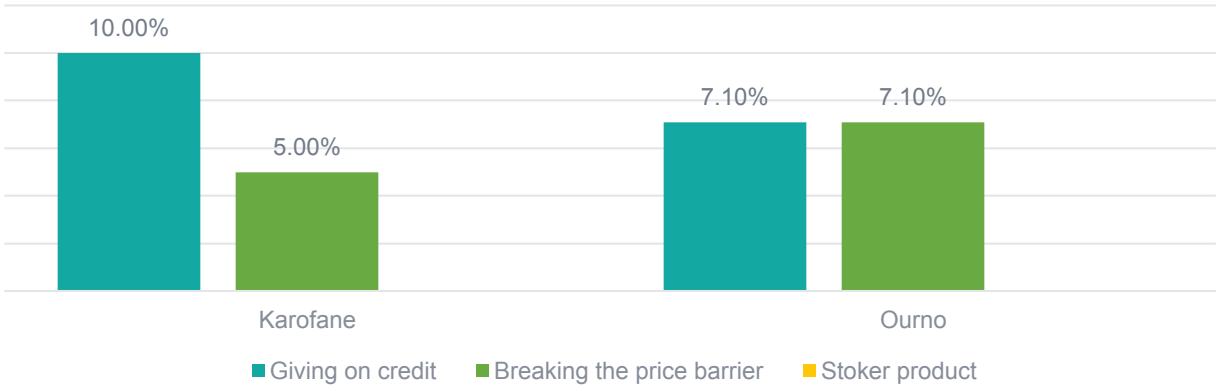


Figure 44: How cassava is priced

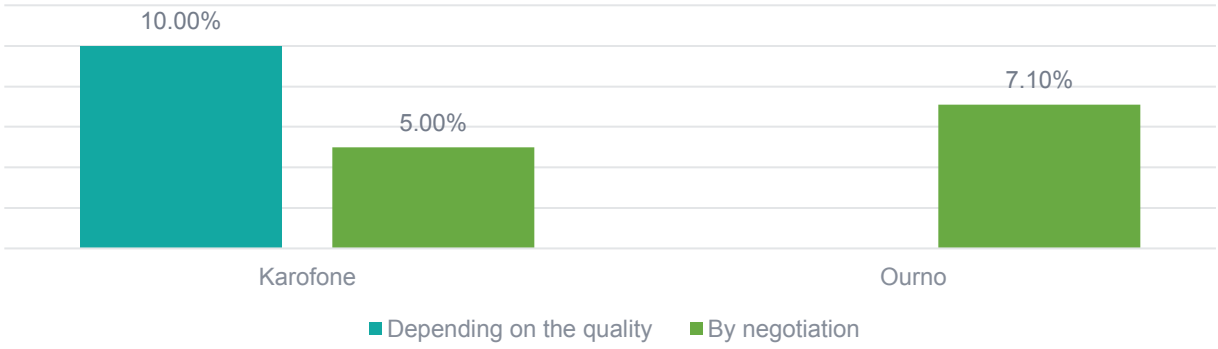


Figure 45 shows the constraints on marketing agricultural produce; 72% of constraints are linked to poor sales, while those linked to lower quality and transport represent 33% and 65% respectively. Other constraints are due to price instability and lack of outlets (51% and 27% respectively). It should be noted that the other constraints remain relatively low in terms of percentages.

Figure 45: Constraints linked to the sale of agricultural products by commune (%)

	Adjé Korya	Dan Goulbi	Karofane	Ourno	Average
Lack of sales	83.30	56.00	85.00	71.40	72.60
Poor quality	70.80	24.00	5.00	28.60	33.30
Overproduction	16.70	4.00	30.00	7.10	14.30
Lack of outlets	45.80	16.00	35.00	7.10	27.40
Price instability	91.70	48.00	15.00	42.90	51.20
Transport	66.70	36.00	80.00	100.00	65.50
Insecurity	4.20	4.00	0.00	0.00	2.40
Other	4.20	44.00	5.00	0.00	15.50

SWOT analysis for cassava value chain

Link	Strengths	Weaknesses
Production	Inclusion of young people and women in production Producers linked to flood recession farming in certain communes	Low level of education among producers Insufficient specialisation by producers in tuber cultivation Insufficient and difficult access to credit Considered a secondary crop in some areas Insufficient technical support
Marketing	Strong demand for products, especially in non-production areas Easy access to the nearest markets	Low level of investment Difficulties in supplying non-production areas
Transformation	Low cost of processing cassava into by-products Profitable business	Low proportion of actors in tuber processing Insufficient technical means of production, Lower quality by-products Availability of local craftsmen to make processing tools
Link	**Opportunities**	**Threats**
Production	Varietal diversity Strong demand for products Tubers can be transformed into valuable products Strong demographic growth Opportunity to prospect the marke t for animal feed and industrial products (alcohol, starch, biofuels) Availability of partners to support sectors	Insufficient supervision of tuber crops Lack of reliable seed suppliers Use of off-the-shelf seeds Inadequate organisation of tuber producers Competition with sub-regional production (coastal countries) Susceptibility of certain cultivated varieties of cassava and potato to fungal and bacterial diseases Climatic hazards (drought and flooding)

Marketing	Strong demand for products in cities and internationally Availability of credit institutions (microfinance, banks)	Competition with products from neighbouring countries Unsafe transport of products from neighbouring countries
Transformation	Strong demand for gari from the poorest communities at all levels (villages, markets, towns) Food substitution during the lean season Easy to prepare Opportunity to diversify processing by-products Availability of research institutes such as INRAN and IITA for supervision and training in processing techniques	Competition with processed products from neighbouring countries

Organisation and governance of value chains for agricultural products and small ruminants

The aim here is to identify the key actors (i.e. those who exercise more power over others) in each value chain as well as the weak links. Thus we begin by analysing the indicators used to identify key actors. An analysis of the influence of each actor is necessary to identify the players with the most power. This will lead to the construction of a governance model for the different value chain.

Setting an attractive price, knowing where to sell the product, and quickly understanding changing market conditions all require access to information and a degree of trust between actors. However, depending on the commune, there are asymmetries of information in the markets, which can negatively impact the weakest actors in the value chain. In all the communes, the price is negotiated directly between the producer and the buyer.

The percentage of study participants who belong to cooperatives is very low. However, the aim of such organisations are to improve production, marketing, and processing. Most stakeholders believe that these associations are not well organised and do not play their roles properly. To this end, they suggest improving the way members are managed and the way decisions are taken. All the value chains in the various communes suffer from poor organisation of actors at all levels.

Mapping groundnut, cowpea, and cassava value chains

To better illustrate the realities of a commodity chain, a value chain map is used. This tool enables us to understand how the basic transactions in the value chain are connected to the market actors in the business environment (McCormick and Schmitz, 2001).

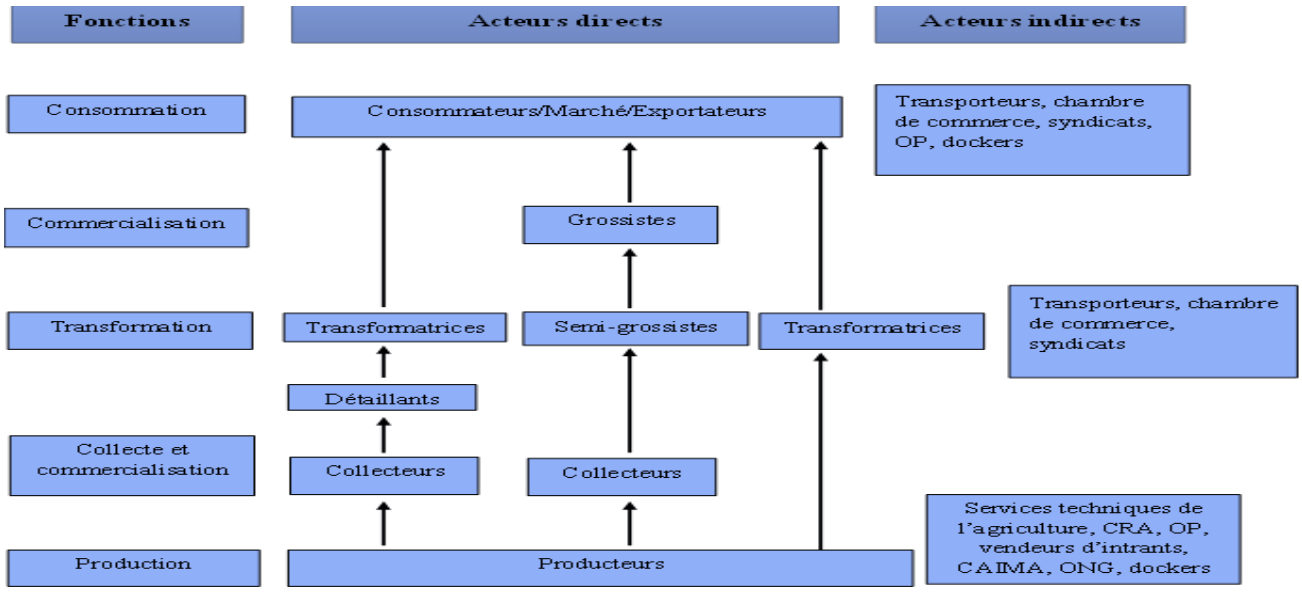
In the context of the vegetable value chain (groundnut, cowpea, and cassava), two categories of stakeholders have been identified: direct actors who carry out the basic functions (production, processing, and marketing) and indirect actors who provide support services (policies, financing, research, training, etc.).

Four main functions have been identified: production, collection and storage, processing, and marketing. After the production phase, farmers in the production function may find themselves at several stages along the chain. They sell their products in their raw state to individual retailers, traders, and processors before they are resold.

In the urban and rural markets, end consumers are confronted with several actors in the value chain, from producers to retailers. Producers access the end consumer in the production area (rural market) and the consumption area (urban market) either directly or via several other actors, including wholesale retailers. The support services referred to here as service providers are made up of three categories: government technical services (Agriculture, CAIMA, etc.), development NGOs, and private companies involved in input supply.

Access to information on the markets closest to the communes concerned has enabled a market model to be set up in which actors adjust their behaviour to the market situation. For other actors, especially the most remote (poor producers), their isolation has enabled a modular model to be set up. In this model, some actors (wholesale retailers) act as intermediaries between the seller (producer) and the buyer and maintain a low level of coordination, i.e. asymmetrical power, which reinforces their bargaining position. In this model, small, isolated producers find it difficult to integrate into the chain. This is true for all the crops sold.

Figure 46: Mapping of groundnut, cowpea, and cassava value chains



Analysis of small ruminant value chain

Farmers' link

The small ruminant value chain is also a promising one in JASS target zones. Figure 47 shows the proportions of study participants who own these small ruminants by commune; they are located mainly in the communes of Dan Goulbi (74.50%) and Karofane (69.40%). Producers in these communes mainly keep goats (66%) and sheep (44%), as shown in Figure 48. Other animals are found mainly in the commune of Gan Goulbi, Maradi region. The average numbers of goats owned are 5.53, 3.83, 3.67, and 3, respectively, for the communes of Karofane, Dan Goulbi, Adjé Korya, and Ourno, and for sheep, the averages are 5 heads in Adjé Korya and 2 in Ourno, as illustrated in Figure 49.

Figure 47: Proportion of respondents owning animals, by commune

Figure 48: Proportion of animals owned by respondents, by commune

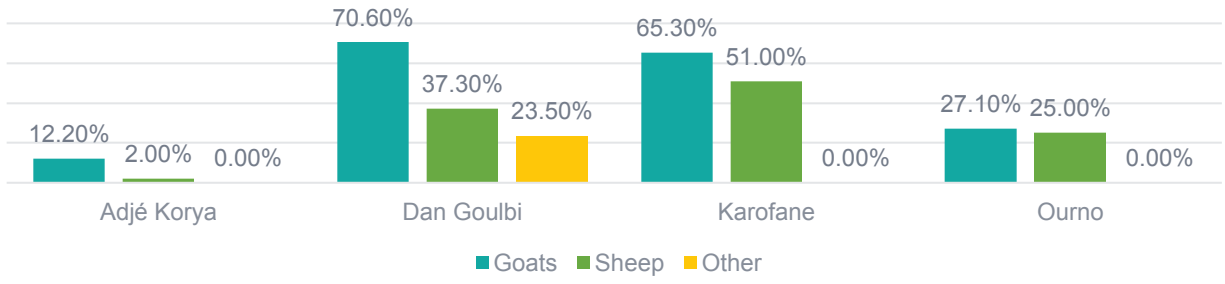
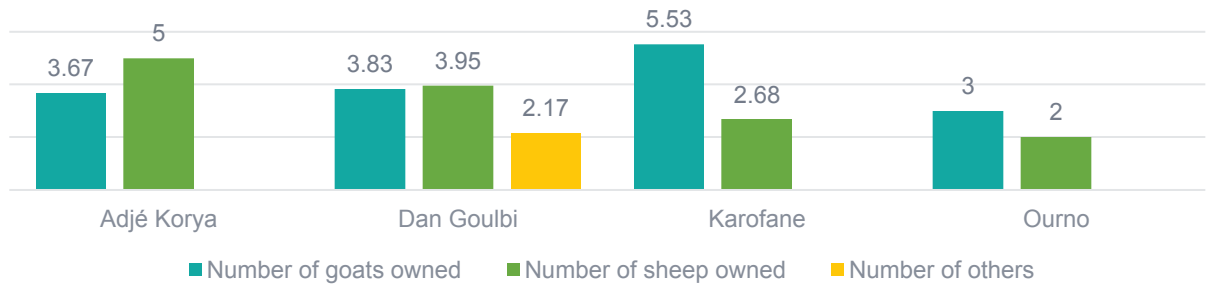


Figure 49: Average number of animals owned by respondents, by commune



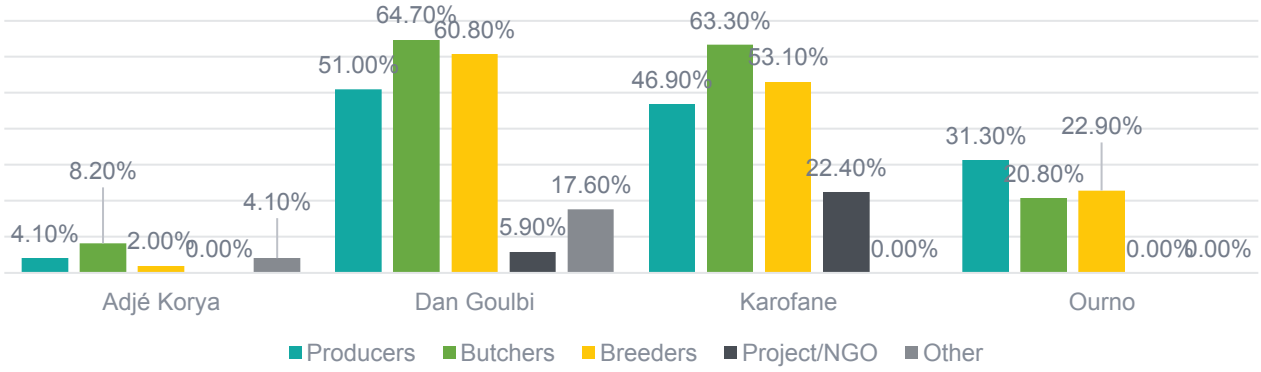
How animals are obtained across the four communes entails purchase, inheritance, or gift, primarily. Being gifted a small ruminant occurs least often in the communes of Dan Goulbi (18%), Karofane (4%), and Adjé Korya (2%). The most popular method of obtaining one of these animals, across the four communes, is purchase. Animals are bought most often at the Mayake market (by 55% of participants from Dan Goulbi), and at the Ourno market (for those from the communes of Ourno and Karofane). Animals are also obtained directed at the village markets themselves. The same markets are where these small ruminants are sold in each commune.

Marketing link

The main buyers of small ruminants are butchers, producers, and breeders across all communes, as shown in Figure 50. In terms of small ruminant rearing methods, most respondents in all communes practice roaming and/or restraint. The advantages of livestock rearing cited by study participants are: a source of income, especially in the communes of Dan Goulbi (70.60%) and Karofane (69.40%); and the production of organic manure (OM), which was acknowledged by many respondents.

Traders mainly buy animals from breeders. Sheep are sold more than goats because they are exported. All traders find it easy to find customers. To do this, they use several strategies to sell their animals quickly: presenting animals with good body condition, advertising, offering very low prices, displaying animals at the market, aggressively approaching buyers, and selling goods on credit.

Figure 50: Buyers of small ruminants, by commune



Income from the sale of animals is used mainly to finance festivals and ceremonies, purchase food, and pay school fees for children. See Figure 51 below for more details.

Figure 51: Use of income from the sale of small ruminants, by commune (%)

Terms and conditions	Adjé Korya	Dan Goulbi	Karofane	Ourno	Average
Buying food	6.10	41.20	38.80	29.20	28.90
Buying agricultural inputs	0.00	7.80	18.40	12.50	9.60
Health expenditure	6.10	29.40	59.20	27.10	30.50
School tuition	2.00	2.00	32.70	12.50	12.20
Ceremonies/festivals	8.20	52.90	49.00	12.50	31.00
Land purchase	0.00	2.00	0.00	2.10	1.00
Purchase of other animals	2.00	2.00	16.30	0.00	5.10
Buying clothing	8.20	27.50	2.00	0.00	9.60

SWOT analysis for small ruminant value chain

Link	Strengths	Weaknesses
Production	Area favourable to production Availability of prolific and hardy breeds Products in high demand Extensive breeding experience Control of the business by the breeders Low investment demand Ease of animal rearing Ease of animal sale Accessible to all social groups Availability of outlets Strong demand for products, both internally and externally Profitability of the business Practised by women and young people	Diseases Lack of supplementary feed Lack of grazing pasture Poor network of water points Degradation of rangelands by invasive species Lack of feed Breeders not organised No access to credit Difficulties accessing inputs No access to new breeding technologies Insufficient technical support Low vaccination coverage rate Mainly extensive farming systems Little investment Illiteracy Lack of training and awareness among farmers

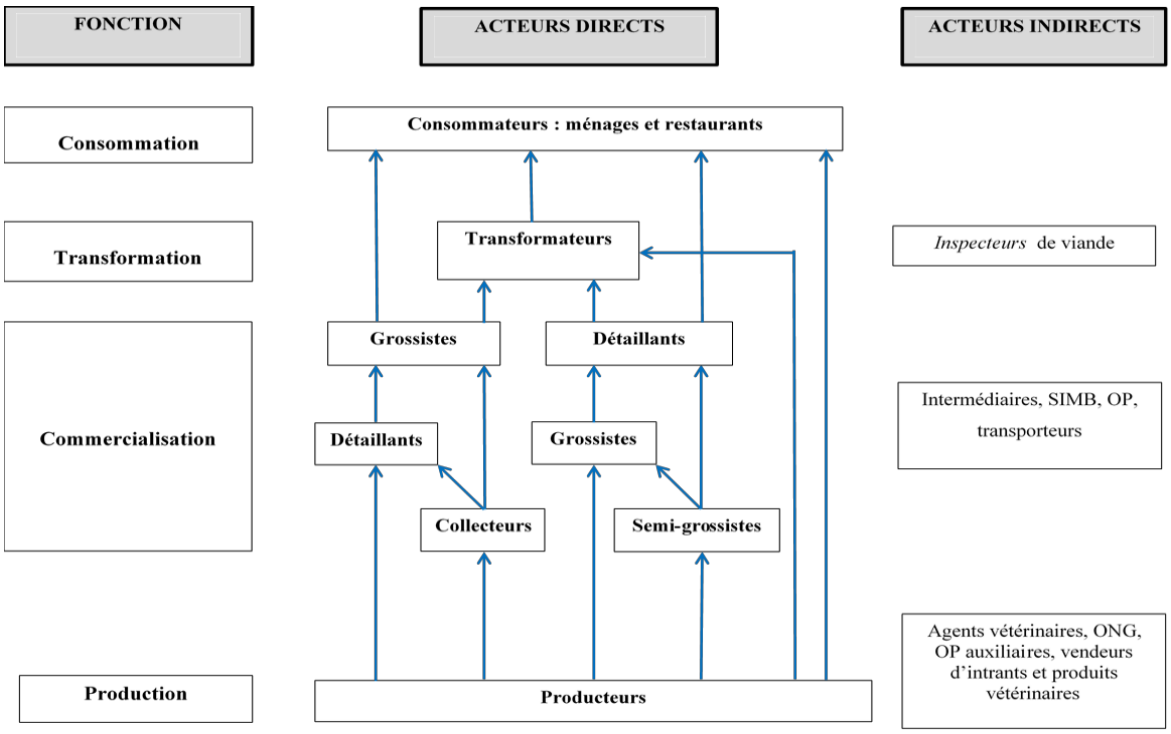
Marketing	Experienced actors Knowledge of the market	Weak organisation of retailers Price instability No access to credit Limited transaction volume due to low financial capacity Lack of sales Transport problems Decline in product quality Livestock transport costs
Transformation	Existence of meat inspection service Profitability of the business Business control	Non-modernised slaughter methods Low diversification of processing products Lack of investment Non-modernised meat sales Lack of cold storage facilities Hygiene problems Actors not organised No access to credit
Link	**Opportunities**	**Threats**
Production	Mostly young farmers Existence of major markets Strong demand for animals on local and international markets	Insecurity Animal theft Conflicts between farmers and livestock breeders Drought Pathology Internal parasitism
Marketing	Strong growth in domestic and foreign demand Favourable markets Existence of economic operators	Insecurity
Transformation	Strong and growing market demand	Fraudulent slaughter Health problems linked to the consumption of products of poor quality

Mapping of small ruminant value chain

Two categories of stakeholders have been identified: direct and indirect. Direct actors include producers, traders, and processors, who are essentially butchers (Figure 52). Indirect actors are service providers, including veterinarians, suppliers of zootechnical inputs, and inspection services.

Processors can buy animals at all levels of the value chain (producers, retailers, and traders).

Figure 52: Mapping of small ruminant value chain



ANALYSIS OF THE VALUE CHAINS OF PROFESSIONAL TRADES

Analysis of couture value chain

Overview of the sewing/fashion value chain

The couture, fashion, or simply sewing value chain is listed in the initial diagnostic report as a promising value chain in the 20 villages in the JASS intervention communes of Ourno, Korafane, Dan Goulbi, and Adjé Korya. This study has attempted to carry out an in-depth analysis of this value chain in these four communes. At the end of this analysis, it emerged that sewing is not widespread enough in the area studied, as only 26 people practice it as a profession. Figure 53 below shows that there are 4 dressmakers in the commune of Dan Goulbi; 7 dressmakers in the commune of Karofane; and 15 dressmakers (57.7% of the total) in the commune of Ourno. Notably, there are no professional dressmakers in the commune of Adjé Korya, and its population uses the dressmaking or tailoring services offered by neighbouring communes.

Figure 53: Number of tailors by commune

Commune	Workforce	Proportion (%)
Dan Goulbi	4	15.4
Karofane	7	26.9
Ourno	15	57.7
Total	26	100.0

Figure 54 below gives a detailed overview of the number of dressmakers working in each village in the communes of the study area. Only 10 of the 20 villages visited had at least one professional dressmaker or tailor. Most of these 10 villages have 2 tailors or dressmakers.

Most tailors or dressmakers prefer to offer mixed sewing services which include men's, women's, and children's clothing, as well as sheets and curtains. In addition, some sell fabric or material.

Figure 54: Number of tailors per village

Village	Workforce	Proportion (%)
Bagaré	2	7.7
Djan Bali	4	15.4
Ediri	2	7.7
Galba	1	3.8
Guidan Jida	5	19.2
Kagarki	3	11.5
Kondo	2	7.7
Koro	3	11.5
Leymatawa	2	7.7
Tsana Assanaga	2	7.7
Total	26	100.0

Supply of sewing equipment and materials

Figure 55 below provides a detailed overview of the supply of sewing materials. Almost half (46.2%) of tailors or dressmakers buy their materials (fabrics, needles, thread, etc.) at the weekly market in the main town of the commune, compared with 34.6% who buy their materials from a local supplier. These dressmakers or tailors make small occasional purchases that hardly require their presence at the weekly markets. Looking at the dressmakers by village, we see that the dressmakers in Bagaré, Kondo, Leymatawa, and Tsana Assanaga all obtain their supplies from the weekly markets held in the commune. Dressmakers or tailors in the villages of Djan Bali, Ediri, Kagarki, and Guidan Jida, however, obtain a significant proportion of their supplies from markets in Nigeria.

Figure 55: Sources of supply of sewing materials (%)

Village	Local supplier	Supplier from Nigeria	Weekly market
Bagaré	0.0	0.0	100.0
Djan Bali	75.0	25.0	0.0
Ediri	50.0	50.0	0.0
Galba	100.0	0.0	0.0
Guidan Jida	40.0	20.0	40.0
Kagarki	33.3	66.7	0.0
Kondo	0.0	0.0	100.0
Koro	33.3	0.0	66.7

Leymatawa	0.0	0.0	100.0
Tsana Assanaga	0.0	0.0	100.0
Average	34,6	19.2	46.2

Even if these professionals manage to obtain sewing materials from various suppliers, they do not do so without encountering difficulties. The majority of professionals surveyed (84.6%) said they struggled to obtain supplies, compared to 15.4% who said they obtained supplies easily. The supply difficulties faced by dressmakers and tailors are the scarcity (57%) and high cost (11%) of sewing materials. To address scarcity, many (89.5%) keep stocks of materials that they replenish on an ongoing basis, while others place pre-order materials.

Design links for fashion products

According to the dressmakers and tailors interviewed in the various villages of the communes visited, clothing is always designed in the workshops. Some dressmakers mentioned that they use several design processes: made-to-measure, standardised, and mixed. More than half (65.4%) of those surveyed design their customers' garments to measure, i.e., they take the customer's measurements before providing any dressmaking service. All the dressmakers in the villages of Galba, Kagarki, Leymatawa, and Tsana Assanaga design made-to-measure garments. About a third (30.8%) design clothes according to a mixed design process: made-to-measure and standardised design. Only one tailor in Djan Bali (commune of Dan Goulbi) specialises in the design of standardised garments. However, at least 50% of dressmakers in the villages of Bagaré, Koro, and Kondo know how to design garments using the mixed (made-to-measure and standardised) design process. This may be an advantage that enables them to design ready-to-wear garments to be sold on the markets.

Marketing link

The marketing of sewing products is an important link in the sewing or fashion value chain. The dressmakers surveyed all indicated that private individuals remain their main customers. Marketing channels used by tailors and dressmakers include direct sales in the workshop, online sales, market sales, etc.; 65.4% market their products through direct sales, while 7.7% sell their products at markets and fairs. The other marketing channels are less used, with an average percentage of around 4%. Specifically, we note that some dressmakers use several distribution channels, particularly in Ediri, Guidan Jida Djan Bali, and Koro, where their percentages exceed 20%.

Fashion designers and tailors also use a variety of techniques to manage distribution and delivery. Some are well organised, incorporating logistical planning and careful packaging as factors in better product delivery, while others use their experience to manage timely delivery. To keep their promises, 42% of tailors and dressmakers use planning and communication, while 19% said they used planning alone. It should be noted that 11% and 7% of designers use communication and planning/order tracking respectively to better serve their customers.

Organisation and governance of the couture value chain

Sewing professionals are not organised into inter-professional groups like the cooperatives and the unions in the towns we visited. This could be explained by two factors. Firstly, the limited number of people practicing

the profession is a constraint. Secondly, the lack of initiative or willingness to set up a cooperative at the level of the commune is an explanatory factor. Failure to establish such a cooperative or union, however, could negatively impact the development of this profession. For example, as individuals, dressmakers and tailors could find their access to private credit limited and their access to sources of funding from the State and its financial partners compromised.

SWOT analysis for couture value chain

Strengths	Weaknesses
Motivation to practise the profession Experienced dressmakers Availability of sewingequipment in the regional capital	Limited number of practitioners Old model sewing machines Limited access to credit
Opportunities	**Threats**
Growth in demand Secondary source of income Fighting the exodus	Products from Nigeria Ready-to-wear products from China

Analysis of metal and woodwork value chain

Overview of the metal and woodwork value chain

The wood and metalwork value chain was identified as a promising one for the 20 villages in the JASS intervention communes of Ourno, Karofane, Adjé Korya, and Dan Goulbi. However, the practice of metal and woodwork remains limited to certain villages. Figure 56 below shows that only 3 of the 20 villages have a metal or woodwork shop. This low number of metalworkers and carpenters can be explained by the lack of electricity in rural areas, despite the growing demand for metal and carpentry products.

Figure 56: Number of people practicing metal and woodwork

Village	Workforce	Percentage (%)
Djan Bali	1	16,7
Golondi 2	4	66,7
Kondo	1	16,7
Total	**6**	**100,0**

Survey data indicate that the services offered by metal and woodworkers are all consumed by private individuals. The services offered are numerous and include the production of chairs, beds, doors, and various living room installations and furniture. This indicates that demand from private customers is mainly for these items.

Supply chain

The market in the main town of the department, the market in the main town of the commune, and the Nigerian market are the main sources of supply for mental and woodworking materials, but to different

degrees. An average of 66% of study participants obtain their supplies from the main market in the commune, while only 16% buy from the local and Nigerian markets. According to study participants, there is a diversity of needed materials sold at a competitive price on the Dakoro, Bouza, and Madaoua markets, compared to the local and Nigerian markets.

On average, 66% of metal and woodworkers encounter supply problems due to the high cost and scarcity of materials. The remaining 33% report no problems at all. Specifically, 100% of metalworkers and carpenters in the villages of Djan Bali and Kondo are experiencing supply difficulties linked to the scarcity of materials at the main markets in Dakoro and Madaoua. To address supply problems, 66% of our respondents keep stocks of materials and use pre-ordering to avoid production stoppages due to the unavailability of materials.

Production link

Metal and woodworking products are produced in two ways in the villages we visited. Most (66%) are made-to-measure, whilst 33% is a combination of made-to-measure and standardised (or mass produced) items. Study participants indicated that they face difficulties in the production of their products. On average, 83% encounter problems related to the cost of materials and the lack of electricity, while 16% say they have no problems at all.

Marketing link

The marketing link is crucial to the existence and expansion of this value chain. Surveyed wood and metalworkers rely on two distribution channels used by metal joiners; 83% use direct sales to market their products, while 16% market their products using both direct sales and resellers. It is important to point out that selling to a reseller is an advantage that allows several items to be sold at a "wholesale" price.

Bicycles and motorcycles are used to transport products when necessary. Wood and metalworkers use several other methods to better manage delivery times. For example, at the village level, 50%, 25%, and 25% of carpenters in Golondi2, respectively, used communication, planning and communication, and tracking and tracing to provide on-time service. Across the three villages, communication (33%) and planning and communication (33%) were reported as the most used management tools.

Organisation and governance of the metal and woodwork value chain

In the 20 villages visited, metal and woodworking professionals are not organised into inter-professional groups such as cooperatives or unions. The small number of people practicing these professions could be a constraint to establishing a cooperative, and may also impact the will and motivation to do so. At the same time, not having a cooperative may hinder the expansion and development of these professions. Practitioners could find their access to private credit limited, as well as their access to sources of finance from the State and its financial partners compromised.

SWOT analysis for metal and woodwork value chain

Strengths	Weaknesses

Motivation to practise the profession Experienced joiners Availability of metal joinery materials in regional capitals.	Limited number of practitioners Reliance on outdated technologies Limited access to credit Sensitive to the availability of electricity
Opportunities	**Threats**
Growing demand for metal and woodworking services Source of secondary income Countering exodus and unemployment	Products made in Nigeria Theft of equipment Competition from quality products from larger towns

Development partners in JASS intervention zones

Many NGOs and programmes are active in helping people in various economic sectors. The area has some development partners (Figure 57).

Figure 57: Development Partners in JASS Intervention Zones

Partner	Domain
World Vision	Funding to the local Training and Trade Centre (CFM)
CADEV	Support for women in extracting groundnut oil Creation of a women's centre dedicated to sewing, knitting, etc.
WFP through Word Vision	Land regeneration Establishment of grain banks (BC),
MCA,	Working in the agricultural sector, providing support in the form of small ruminant kits and UCAs, and marking out animal corridors
AREN	Involved in agriculture and infrastructure development (livestock market)
CDR	Land regeneration (predominantly half moon techniques)

Recommendations for microenterprise projects to strengthen value chains

First of all, we recommend not imposing on each site a pre-established choice of infrastructure/equipment to receive support from the project but offering a range of possible supports and leaving the final choice to the communities following an initial action to raise awareness in the entire community and to encourage reflection by the groups concerned, according to gender.

The projects must combine targeted support for individual producers with targeted support for groups and organisations because certain actions, such as collective sales, social life, and marketing, can only be carried out in a collective and organised way. The choices of each producer must be based on their own analysis and understanding of their business and economic activities.

With regard to young people who are motivated by entrepreneurship, the project must target the best young entrepreneurs in each locality and support them through capacity-building in business plan development, business establishment and management, and leadership.

Recommendations to strengthen specific links in the groundnut, cowpea, and cassava value chains

	Groundnut Value Chain	Cowpea Value Chain	Cassava Value Chain
Production	Capacity-building for producers on innovative production techniques, pest management and stock management Development of community input supply channels (seeds, compost, neem-based biopesticides) Setting up infrastructures and equipment for hygienic drying of production Development of a credit system to support producers Capacity-building for producers on market requirements would be an asset	Capacity-building for producers on innovative production and pest management techniques Development of input supply channels (seeds, neem-based biopesticides, pesticides) Development of a credit system to support producers Capacity-building for producers on market requirements would be an asset	Capacity-building for producers on innovative production techniques Development of a credit system to support producers Capacity-building for producers on market requirements would be an asset
Marketing	Setting up networks of marketing cooperatives Capacity-building for cooperative networks on associative life and marketing Setting up storage and marketing infrastructures	Setting up networks of marketing cooperatives and building their capacity in associative life and marketing Setting up production cleaning equipment and storage and marketing infrastructures	Setting up networks of marketing cooperatives and building their capacity in associative life and marketing Setting up marketing infrastructures
Transformation	Development of a network of micro-businesses and women's processing groups Capacity-building for groups on associative life, processing techniques, hygiene, and marketing Development of new processed products based on peppers and sesame Infrastructure and processing equipment for groups Support for micro-businesses and groups to set up marketing channels for their production at national level		

Recommendations to reinforce the small ruminants value chain

- Integrated training system for breeders and auxiliaries on clinical care, veterinary hygiene, breeding techniques, and animal feed
- Hygiene training for butchers and women cheesemakers, and support with the necessary materials (modern or improved grilling ovens, meat wrapping paper such as aluminium foil and cheese drying systems)
- Setting up a network of auxiliaries and providing them with veterinary products and equipment
- Project to reconstitute small ruminant livestock with the distribution of animal kits of prolific breeds (Sahel breed and Maradi red goat for goats, balami for sheep); 4 females and 1 male per beneficiary in accordance with the Sustainable Livestock Development Strategy (SDDEL) 2013-2035.
- Setting up zootechnical input and veterinary product shops and training managers
- Small amounts of working capital made available to retailers
- Support for women and young people in animal feed and supplementary feeding for sheep fattening
- Support for young people in agri-business through the creation of a breeding farm for prolific breeds of sheep and goats
- Project to create units for the production and sale of livestock feed, particularly the densified multi-nutritional block

Recommendations to strengthen the couture and metal and metalwork value chains

Recommendations to strengthen the couture and wood and metalwork value chains focus on capacity-building generally and business management techniques in particular. To build the capacity of producers, dressmakers, tailors, fashion designers, metalworkers, and carpenters who want to invest in improving their business management skills, various activities could be promoted.

Participants should be invited to co-design the structure and content of training modules, sessions, and workshops. In this manner, the content will be tailored to needs of specific groups, and the structure (timing, agenda, schedule, location, etc.) would be considerate of any special requirements that assure the meaningful participation of marginalised groups like women, youth, PLWD, and IDPs.

The training should equip participants with a comprehensive understanding and sufficient analytical tools to make decisions that are economically beneficial to them. The course cover, generally, farm, professional,

and household business management; risk and investment management; market management; financing; and credit.

The modules need to be adapted for heads of household on the one hand, and for women and young people (who may be separated) on the other, as their production conditions and operating economies are markedly different. In addition to training on business management, other training courses should be offered on production practices (school fields, application of technological packages, fertiliser dosing, staggered sowing, agroecology, environmental management, etc.).

Preferably, training on production practices will also be targeted separately at heads of household on the one hand, and women producers and young producers on the other, whilst accommodating the needs of PLWD and IDPs.

Recommendations for support to producer links

Taking into account the choice of commodity chains in each commune, it is essential to support a range of collective activities carried out by existing groups that can improve the profits of producers from the marketing of their products. These include:

- Contact the producers' umbrella organisations and inter-professional organisations for the sectors indicated (cowpeas, groundnuts, cassava, small ruminants, etc.) with a view to joining forces wherever possible.
- Explore options for organising grouped transport of products to more distant markets in order to obtain better prices, while calculating the cost of transport.
- Explore ways of attracting buyers (wholesellers, intermediaries) to the site and building their loyalty by offering quality products (cleanliness, taste, durability).

Also, taking into account the choice of value chains operated by producers at the level of each commune, support a range of collective activities that can improve the storage of products with a view to improving the profits of producers who sell stored products:

- At present, the storage of cowpeas, groundnuts, and manioc seems to have the greatest potential for improving producers' incomes, and the storage technique, especially PIC bags, is well known. In each commune, it is important to support the construction of storage warehouses. At the same time, technical support will be needed to establish transparent and efficient management and assure the inclusion of women and young people both as members and in the management of the activity.
- Establish warehouses for the storage of agricultural products (cowpeas, groundnuts, etc.), drawing on the positive experience of other localities in Niger.
- For actions requiring technological testing and dissemination, it is recommended that collaboration with research institutes is undertaken to ensure that conclusive lessons can be learned.
- All storage actions must necessarily be combined with support for proactive market research for the stored product.

Recommendations for support to processor links

It is also necessary to support a range of collective activities that can improve the processing of products with a view to improving producers' profits from the sale of processed products.

The processing of local products represents an opportunity for local job creation for members of the community who do not have the opportunity to invest in agro-pastoral production. It is therefore recommended that the project support processing activities (cowpeas, groundnuts, manioc, small ruminants) with a view to stimulating local job creation for sections of the population with few resources and other marginalised groups.