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Scoping Report for a Farmer-Herder Conflict Case Study in Sudan

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Scoping Visit and Report

Preparatory scoping visits are good practice in research where the research seeks to engage with people in a specific case study location and context. They also have particular value for research that is sensitive. Farmer-herder conflicts fall under the latter category. Scoping visits in this case serve a number of purposes. They help gain insights on context, particularly those which may not be available or readily apparent in the existing literature, they introduce the research and researchers ahead of time to build rapport and trust, and they help the research team assess how best to ensure the right people participate in the qualitative aspects of the research.

This scoping report combines findings from a scoping visit to the case study location with a review of the literature that describes salient features of the political economy in Sudan. The purpose of this report is to document findings as a contribution to and as preparation for fieldwork on farmer-herder conflicts.

The scoping visit to Azaza Sogora Village in Gadarif State, Sudan was conducted on 3–6 November 2023. A second gap-filling visit was undertaken shortly thereafter. The purpose of the scoping visit was to gain a broad understanding of local conflict, the local political economy and local farming and pastoral food production systems ahead of the main fieldwork. Thirteen key informant interviews were conducted with seven informants from Azaza Sogora Village (four men and three women), five pastoralists (four men, one woman) and the director of the Mechanized Farming Corporation. Informants included local leaders, people engaged in conflict resolution and women and youth active in the community.

This first part of the report covers the local context framing farmer-herder conflicts in the case study location, while the second part is a summary of developments at the national level.

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part 1

Overview of Local Conflict in Azaza Sogora

Local Farmer-Herder Conflict and Main Actors

Farmer-herder conflicts are commonly reported in Gadarif State. Most involve crop trespassing and are between individual farmers and pastoralists or between groups of farmers and pastoralists. The latter occurs where crop damage has occurred across large farming areas and involves many individuals on both sides. These two conflict typologies are present in the case study location of Azaza Sogora Village.

Farms near livestock migratory routes or corridors are most affected by animal trespassing. However, farms further from these routes are also susceptible to damage which occurs when pastoralists are trying to reach abandoned fields, fallow land or crop residues.

Most conflicts take place as pastoralists are returning from the northern grazing areas in October and November, which coincides with crop maturity and harvesting time. Most reported cases are with Fallata pastoralists, who are the majority ethnic group passing by the village. However, another factor has increased the number of farmer-herder conflicts in and around the village. This is the establishment of three pastoralist settlements in 2018 inside a forest near the village. The permanent residence of these pastoralists has increased the number of farmer-herder conflicts. Instead of being seasonal in nature, now the cases are reported throughout the year.

While there are no official records of conflict in the village, key informants provided a rough estimation of the number of conflicts over the last three years (*Table 1*).

Table 1. *Farmer-herder conflict cases in Azaza Sogora Village (2021–2023).*

Type of case	Year		
	2023	2022	2021
Solved through conciliation or compensation	15	22	24
Solved by the Local Crop Damage Assessment Committee	10	18	24
Solved by the locality crop damage assessment committee	1	2	2
Trespassing animals not arrested, escaped or not identified	25	12	19
Total	**51**	**52**	**69**

Source: *Discussions with Local Crop Damage Assessment Committee members and community leaders.*

Aside from farmers and pastoralists, other actors involved in local farmer-herder conflicts are the local crop assessment committee at the village level, the crop assessment committee at locality level, the local police, local farmer and pastoralist leaders and the director of the zaribat elhawamil (enclosure where trespassing animals are held until a resolution is reached). The Local Crop Damage Assessment Committee and the local leaders are the most important actors. Other external actors are the state juridical system, the Executive Director of the Locality, the Ministry of Agriculture, the Mechanized Farming Corporation, and the Forests National Corporation. Their roles are described in Table 2.

Table 2. *Actors involved in farmer-herder conflict.*

Name	Level	Role
Local crop damage assessment committee	Local	Visit the livestock-damaged field upon request from the police station in the village to estimate the affected area and then estimate the expected yield from the area.
Zaribat Elhawamil	Local	Enclose the trespassing animals and look after them.
Farmers and pastoralists leaders	Local	Mediate the two parties upon request from one of the two sides in the conflict. The aim is to reach conciliation, agree on compensation or both.
Locality crop damage assessment committee	Locality	Visit the livestock-damaged field upon request from the Public Prosecutor of the Judicial System to estimate the affected area and the expected yield from the area.
Police Station	State	Arrest the accused pastoralist and open an infringement report upon request from the farmer. Ask the Local Crop Damage Assessment Committee to assess the damage. Relay cases to the Public Prosecution of the Judicial System.
Executive Director of the Locality	Locality	Form a Locality Crop Damage Assessment Committee and invite them to organize a field mission to the affected farms.
Ministry of Agriculture	State	Represented in the Locality Crop Damage Assessment Committee to assess the yield in the damaged area.
Mechanized Farming Corporation	State	Issue land leases and certificates for land ownership.
Forests National Corporation	State	Issue temporary land leases for farming inside state-owned forests.
State juridical system	National	The national state juridical courts judge the case should it reach that level.

Source: *Author's creation.*

Women and Youth

Farming women are not involved in conflict resolution mechanisms or processes. Their links to conflict are through their food production system. For example, women farmers are affected when pastoralist animals destroy crops or trespass on their farms. When this happens, women tell the male members of the household to deal with the issue or they take the case to the police station accompanied by a male family member. They also have the right to accept or refuse conciliation or compensation. No information emerged during the scoping visit on how conflict affects pastoralist women or whether they are involved in conflicts or not. Male youth may be involved in a conflict and their role is considered no different to that of older men.

part 2

Features of the Local Political Economy

Case Study Context, Communities and Food Production Systems

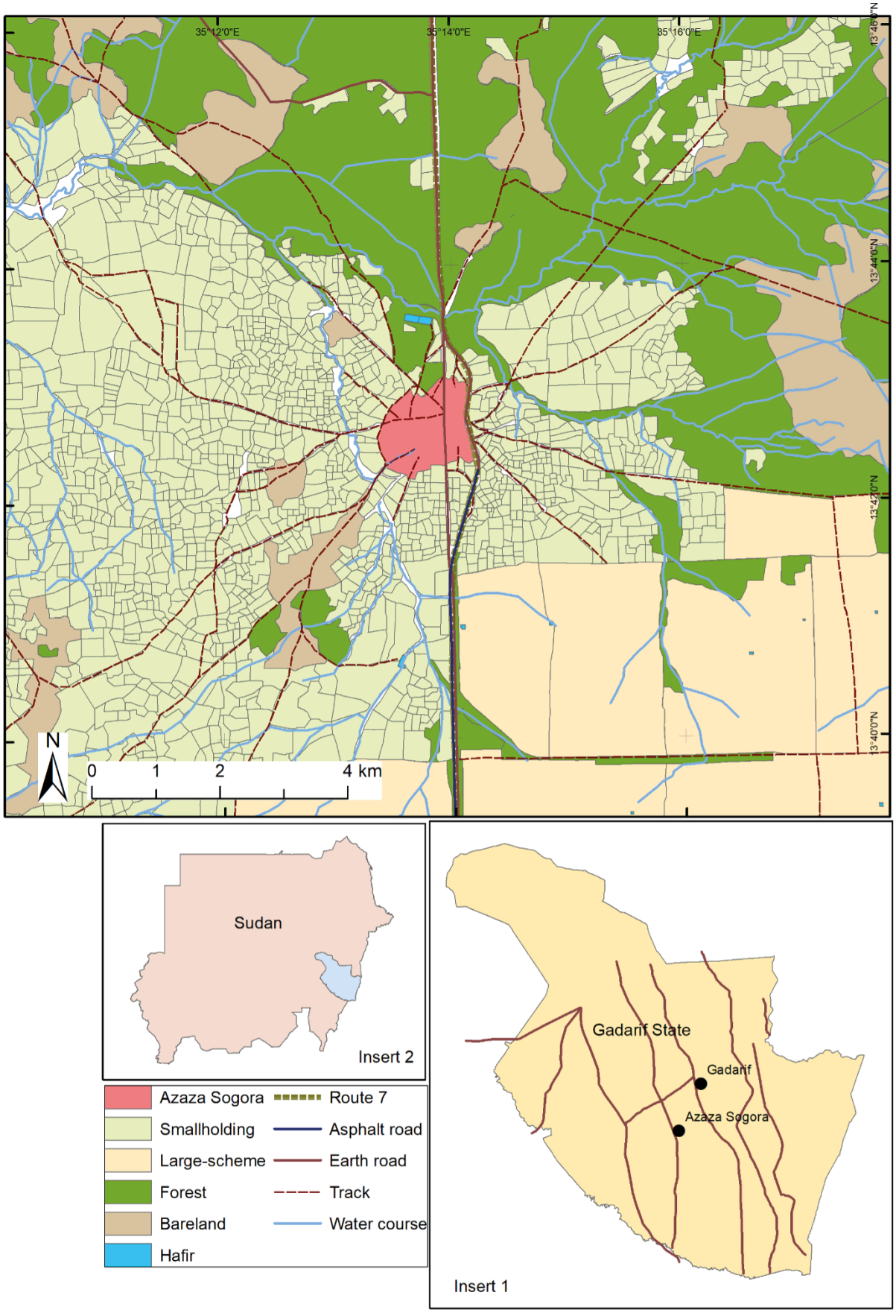
Population, Demography and Trends

Azaza Sogora Village was established in 1950, mainly comprising agricultural wage labourers who settled around existing large-scale agricultural schemes where they worked. The population when the village was first established was about 150 people. Today, the population is about 4,000 families or 20,000 people. Most are Muslim with a minority of Christians. Religion is not a politicized topic or a topic of contention in the area. Ethnic groups who identify as farmers in the village include Fur, Zaghawa, Bulala, Salamat, Kajaska, Masalit, Burgo, Tama, Tunjur and Misseriya (*Figure 1*).

There has been in-migration to the village during various periods. The biggest population increase was experienced following the major droughts of the 1980s when there was a significant influx of people from Darfur and Chad in particular but also from the Nuba mountains and South Sudan. These migrants were escaping drought conditions in their home areas and many have since settled. Since the eruption of conflict in Sudan in April 2023, approximately 200 families, mainly from Khartoum, have arrived in Gadarif State fleeing conflict. Most of these families were either originally from Gadarif or have extended family in the state. Seasonal in-migration is also a trend in the area. Seasonal agricultural wage labourers come from Ethiopia during the local harvest season. This trend began following the secession of South Sudan in 2010 when southern Sudanese wage labour dried up.

There is also out-migration from the village, particularly among youth. Most out-migration is in search of better employment and work opportunities, mainly to urban centres in Sudan, and, until recently, to the national capital Khartoum. Most of the area's out-migrants work mainly as wage labourers. Around 20% of local youth participate in this type of out-migration, returning to Azaza Sogora during the rainy season to participate in farming. A few have also migrated out of the country, and some have left to work as artisanal gold miners in areas further away in Gadarif State and beyond. The trend of working in gold mining began in 2000 and mainly attracts youth.

Figure 1. *The case study area.*



Many pastoralist groups pass Azaza Sogora during their seasonal migration. This includes the Lahawin, Rufaa, Fallata (also known as Fulbe or Fulani), Kinana, Beni Amer and Rashayda ethnic groups. The majority of passing pastoralists are Fallata.

The main livestock corridor near Azaza Sogora is Corridor Number 7, which passes directly alongside the village (Figure 1). This route extends in a north-south direction for about 290 km and is 150 m wide. The typical annual migration of pastoralists is between the Butana communal rangelands in the north during the rainy season, where they take advantage of the brief growth of annual grasses and the southern areas of the state where there is better availability of water and fodder during the dry season. The northern and southern areas are connected by officially demarcated corridors where both animals and pastoralist households move. Each year, from October to November, pastoralists pass by Azaza Sogora on their way to their summer camping areas.

Overall, there are eight livestock corridors in Gadarif State that range in length from 66 to 290 km and in width from 150–300 m. Formal demarcation of livestock routes began in the mid-1990s and the process took about seven years. Most routes were already there and historically known, but formal demarcation took place to give them official legal status and to protect them from encroachment by farming activities. Interconnectivity between routes is missing from the current design of the corridors. This means that if a pastoralist group has decided to use one corridor it is not possible to cross to another. This reduces the flexibility of the migratory pattern and also hampers access to resources, for example, markets and veterinary services. Not surprisingly, farmer-herder conflicts have intensified along these corridors.

Pastoralists use the corridors at least twice; once to access the Butana communal lands in the north during the rainy season and again to return to their summer camping areas in southern Gadarif State. The southward journey begins in late October. Before entering the corridor, some pastoralists have to make important decisions, such as transporting their families together with small animals in advance to the nearest rest place by vehicle and also to separate camels and cattle from sheep and goats. They make these decisions due to the lack of suitable resting places along the routes. The few officially demarcated rest places along the routes are small and almost bare.

Mobility for many pastoralists has been hampered, mainly due to insecurity and the spread of mechanized farming in the northern Butana area, and to increasing difficulties using the official migratory routes. Migratory routes are poorly serviced, too narrow to accommodate large numbers of livestock, are encroached upon by farms, and no mechanisms are in place to allow pastoralists to move horizontally from one corridor to the other. These difficulties have caused increased numbers of pastoralists to concentrate in the southern areas during the rainy season (the time they would normally spend in Butana) and to settle. Most pastoralist settlements are in southern Gadarif (outside the study area) with the exception of the three pastoralist groups that have settled in the forest near the village. Mobility patterns have also generally changed in the last twenty years from long- to short-range.

Infrastructure, Markets and Services

A main non-asphalt road was completed in the 1980s connecting Azaza Sogora with Gadarif City, improving access and transport between the village and the state capital. Other infrastructure and services in the village include:

- Two primary schools; one for boys and one for girls, which are attended by children from the settled community; secondary schooling and higher education must be sought outside the village in the state capital or elsewhere.
- A local health centre and market.
- A *hafi*[1] used for drinking, for home use and watering village livestock. In good rainy seasons when water is sufficient, pastoralists are also allowed to water their herds from the village *hafir*.
- A local police station.

Main Economic Activities and Livelihoods

The main economic activities in the village are linked to agricultural production (both crop production and livestock rearing) and the main livelihoods in the village are smallholder rainfed crop farming, livestock rearing, agricultural wage labour and tapping gum Arabic. Rain fed farming and livestock rearing are the main livelihoods.

The main economic activities and livelihoods have not changed significantly since the village was established. However, more people, including men, women and youth, are participating in agricultural wage labour due to the general economic deterioration and high inflation in Sudan. While many people are contracted as wage labourers on a day-to-day basis and return home at the end of the day, some move to camps on large-scale agricultural schemes for a few weeks or months. This is mainly done by male youth and sometimes whole households. Tapping gum Arabic has also decreased, given the clearance of hashab trees (*Acacia senegal*) and the low price for gum.

Rainfed crop farming is home gardening and farming on agricultural fields. Most agricultural production in the village is to cover household food needs, with sales of surplus to cover basic expenses. Home gardens are located on a few square meters within the household compound and are the responsibility of women. They mainly grow sweet sorghum, okra, molokhiya, arugula, cucumbers and chilli. Men, as heads of households, are the primary managers and organizers of farming on agricultural fields. However, all members of the household participate in all steps of production (e.g. planting, weeding, harvesting.). Main crops cultivated are sorghum, sesame, millet, okra, groundnut, hibiscus and, more recently, cotton and melon seeds (*tasali*, a popular snack). When household labour is insufficient, agricultural wage labourers are hired.

Most agricultural production is smallholder production using largely non-mechanized means with some mechanized ploughing and seed sowing. These small-scale plots range from five to 20 ha. Ten farmers in the village are classified as large-scale mechanized farmers, holding plots of 240 ha or more.

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1 Artificially created pond for the storage of rainwater during the rainy season.

Livestock rearing is also an important activity and has been practiced more since the 1970s. The main types of livestock owned are sheep, goats and cattle. Most farmers own a small number of livestock. However, 60 farmers own larger flocks of sheep and six own large herds of cattle.

Farmers tend to rear their livestock cooperatively. They will combine the small number of animals they own into one herd and send it away to communal grazing lands in the northern part of the state during the rainy season. They hire a herder from one of the pastoralist groups in the area to take care of the herding. The herd returns after about three months, near the end of the harvest season, at which time each farmer collects his animals. This way, nutritious fodder is secured for the animals during the rainy season while also ensuring the animals are not near farms during the cultivation season to avoid crop damage.

Gender norms in Azaza Sogora are the typical norms of rural farming communities in Sudan, where men are the leaders and decision-makers and women are responsible for tending to home life and caring for the household.

However, some radical changes have occurred in the last 14 years or so, when women began to have access to finance and loans. This was started by NGOs working for women's economic empowerment and connected women to banking and lending institutions. Loans are given to individuals as well as to groups registered as cooperative societies (all of which are women's cooperatives in Azaza Sogora) and are mainly in the form of agricultural inputs and cash. Currently, hundreds of local women are getting loans from banks in Gadarif City[2]. These loans have enabled women to become more involved in crop production (75% of women in the village now have their own farm plots)[3], have expanded their activities from food crops to cash crops for income (mainly sesame and groundnut), have increased the number of livestock they own and contribute to household expenses. Women attend to their own piece of land only after they have fulfilled their responsibilities on the family farm plot. Informants agree that banks prefer to give loans to women because they are more committed to paying back loans after harvest.

The attention paid to women in the village by NGOs has increased women's visibility, participation and power within the community. Besides women heading all the local registered cooperatives, in November 2022, the Locality Executive Director issued an order that the water facilities in Azaza Sogora should be under the administration of a women's committee.

Around 50% of male youth in the village have their own farming activity. After participating in the family farm plot, they cultivate their own land. The main crop grown is sesame, as it has a short growing season and can be sold quickly. The main job undertaken by unmarried girls, other than participating in family farming activities, is to work as agricultural labourers.

Livestock rearing is the main economic activity for pastoralists, although rainfed crop farming is becoming an attractive option, including for Fallata pastoralists as a result of pressures on the pastoral livestock system. Pastoralist farming plots are mainly in the southern parts of Gadarif State (outside the case study location) and the main crop is sorghum. Pastoralists rear mainly sheep, goats, cattle and camels. The Fallata are mainly cattle herders who, in the last three decades, have begun to raise sheep.

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2 In the last five years, banks have also started to provide loans to men.
3 Women had their own plots in the past but this increased with access to finance.

Both partially settled as well as mobile pastoralist groups are involved in crop production. They have also worked as agricultural wage labourers (both men and women) in large-scale farming schemes, mainly to help cover living expenses and to reduce the pressure from their animals.

Fallata women have clear ownership of their own livestock and their husbands cannot sell them without the woman's permission. They are also responsible for livestock near the homestead, including young and sick animals, and participate in local and urban markets selling ghee and milk products.

Food Production Systems

The main local food production systems in Azaza Sogora and its surroundings are crop farming and pastoralism. The two systems are interconnected and interact in many ways. With the exception of the few large-scale farms in the village, crop farming in Azaza Sogora is rainfed and mainly for household consumption, with any surplus marketed to cover living expenses. Priority is given to growing staple cereal crops such as sorghum and millet and then edible oil crops such as sesame and groundnut. Okra is another important diet crop. The main factors affecting production under rainfed conditions are rainfall shortages and fluctuations. Pest infestations are another limiting factor. Economic incentives have encouraged local farmers to introduce new cash crops such as cotton and melon seeds (*tasali*).

Farmers store their harvest inside their household compounds in huts. They sell from the harvest in small quantities according to their needs. They continue to do so until the approach of the next cultivation season, at which time they sell the remainder of the stored harvest, holding back enough to cover their food needs up to the new harvest. They use the money earned from sales of the remaining harvest to buy agricultural inputs and to rent machinery, which is used to prepare and plough the soil at the outset of the new rainy season. They sell their harvest to traders in the local market. They transport large quantities by truck to Gadarif City, which is the nearest urban centre, and to the weekly markets in neighbouring villages. They sell their harvest without processing. Farmers occasionally sell their animals. They prefer to sell sheep as they fetch higher prices. The money is used to pay for planting costs, school fees and other expenses. Animals intended for sale are transported by truck to livestock markets in Gadarif City where they get better prices.

Major land uses in the Azaza Sogora area are smallholder crop farming practiced by farmers from the village and large-scale mechanized farming practised by wealthy farmers, mainly from urban centres. Some large-scale schemes surround the smallholdings of the village farmers, which means the people in the village have no way to expand their farmland. As a consequence, a great number of the new generation in the village are landless and have to rent land to cultivate. The main relationship between the Azaza Sogora community and the large-scale mechanized farm owners around them is to work as wage labourers, mainly weeding and harvesting.

Another relatively new land use in the area is smallholder crop farming inside the nearby forests. Previously, this was carried out by farmers from Azaza Sogora and was mainly carried out in empty patches of forest. Newly settled pastoralists inside the forest have rapidly expanded this activity. Land conversion is degrading the forest, according to informants.

Changes have occurred in the credit system in Azaza Sogora. People have shifted from the traditional system of shail to the modern banking system. In the shail system, merchants, mostly from outside the village, offer farmers loans to cover inputs and living costs at the start of the crop season in return for the right to buy crops during harvest at a discounted price. As market prices increase, this discount is ever greater and farmers complain the system is unfair. Informants have said that bank loans are far better.

The Mechanized Farming Corporation is the agency responsible for land registration. Currently, there is an increasing trend among farmers in Azaza Sogora to officially register their agricultural land. This lets them use the document as collateral when applying for loans. Almost all registrations are done by male members of the family as heads of household. Women are excluded from this right.

The Fallata are the main pastoralist group interacting with the Azaza Sogora community. They mainly raise cattle and sheep. Like many pastoralist communities in Africa, they keep livestock for a combination of social, cultural and economic purposes and to meet living expenses. They began to raise sheep because they are easy to sell, fetch good prices and mature quicker than cattle. The trend of focusing on sheep is more prominent among youth. The Falatta are well connected and interdependent. One of their main solidarity practices is nanginaya. In this practice, poor members of the extended family are gifted female animals from their relatives. After the animal gives birth two or three times, the animal is returned to its owner. Sheep are mainly used for this practice but also cattle and goats. Some Fallata pastoralists also work as livestock traders in the weekly markets. Their main practice is to collect animals from their owners based on an agreed price. After the sale, the trader pays the owner. This practice of livestock trading, while not new, is currently flourishing, especially among male youth.

More recently, some Fallata have started cultivating crops. This practice began three decades ago when they settled in the southern parts of Gadarif State. They mostly rent farmland from people in the settled community. Some have even begun to purchase land. The main crop is sorghum for personal consumption. If the cultivators are nomadic pastoralists, they store their harvest with farmers in the village against payment and return from time to time to take from the harvest. They do this because it is difficult to carry the harvest as they move with their livestock. Settled pastoralists store their harvest inside their household compounds like settled farmers. The Fallata do not deal with loan institutions.

Women from among the settled Fallata will work as wage labourers on agricultural farms, mainly weeding and harvesting. This practice is relatively new and started about 15 years ago. They said they do this for additional income and it helps reduce pressure from their herd. Besides selling animal products in the market, Fallata women are also responsible for milking, taking care of sick animals kept near the home and looking after newborn and young livestock. They share this responsibility with young boys and girls.

Fallata pastoralists sell small numbers of their livestock in local markets. Larger numbers are trekked to nearby markets or are transported using trucks to major markets such as in Gadarif City. The majority of sold livestock are sheep, followed by goats. If a large amount of money is needed, for example, to pay for a wedding ceremony, to buy crop residues from large-scale schemes or to pay a large fine for crop damage, they will sell a bull. If a cow or a bull is injured, they sell it to local butchers.

part 3

Local Governance, Key Events and Processes

Land Tenure

There are two types of land tenure regimes in Azaza Sogora Village, registered and unregistered private ownership. The houses within the village are on officially registered land. Agricultural land used to be unregistered private ownership. However, in the last 15 years, people began to formally register their land because it is a requirement by some institutions to access agricultural inputs and loans.

Pastoralist communities rely on a combination of open-access communal rangelands, government-owned land and privately owned land and water. The Butana rangeland in the north, where pastoralists normally spend the rainy season, is considered a typical open communal rangeland where all pastoralist groups have equal rights. Pastoralists also take their herds to forests registered with the Forest National Corporation as state-owned property, where grazing is allowed by law (this includes the forest near Azaza Sogora). During the dry season, most Falatta pastoralists rely on crop residues in agricultural fields and schemes owned by farmers. They have to pay to use the residue. Also during the dry season, they depend mainly on privately owned water resources to water their animals.

Systems of Governance

Commonly used governance rules and systems of authority used in Azaza Sogora and the pastoralist groups interacting with them are a combination of customary norms and state laws. Within the village community and among the Fallata pastoralist group, the main governance system is based on local norms and traditions and is led by traditional male leaders.

Dispute Resolution Mechanisms

The preferred means to resolve issues and disputes is through direct reconciliation and the ajawid. The ajawid is a traditional dispute resolution mechanism where respected members of the community and traditional leaders, usually elders known for their knowledge of communal and customary norms, get involved to reconcile the parties through compensation or forgiveness. The final decision is in the hands of male members of the community.

The ajawid is also the main mechanism for solving farmer-herder conflicts. In such cases, the dispute is solved without state involvement. If this does not work, the second level is to take the case to the Local Crop Damage Assessment Committee. Normally, the committee detains the livestock that have trespassed onto farms in special enclosures called zaribat elhawamil. Thereafter, both sides negotiate the ransom that should be paid to the farmer. If they agree, the case ends there. If there is no agreement, the case is taken to the official formal state juridical system. The starting point at this level is to officially report the case to the police station in the village. In some cases, the official formal process involves arresting the owner of the trespassing animals at the police station in addition to detaining some of the animals in a zaribat elhawamil. The official formal state juridical process also involves the Locality Crop Damage Assessment Committee. This is the least preferred mechanism because it involves a lot of bureaucracy and is time-consuming, especially for pastoralists. Some of the cases may extend to three or four months. Throughout the process, the arrested pastoralist may remain in jail.

The main decision-maker in farmer-herder conflicts is the Local Crop Damage Assessment Committee. It consists of five members selected by the locality authority. None of these is a pastoralist. Pastoralists, therefore, complain that the committee is biased towards farmers and always overestimates crop damage. In terms of power, the Locality Crop Damage Assessment Committee is the most powerful conflict resolution body in the state juridical system, although it only comes into play if the conflict is not solved at the local level. It consists of government authorities at locality level and involves technical staff from the Ministry of Agriculture to assess the damage. Traditional leaders are not involved at this level. Still, farmer and pastoralist leaders play a significant role in mediation and negotiation to resolve farmer-herder conflicts.

Key Events and Processes

Wider conflict and insecurity are hampering mobility. Due to the fragile security situation associated with the ongoing war in many parts of Sudan, this season many pastoralist groups in Gadarif State have decided to stay in the dry season camping area in the south, which is more secure. This means most will stay within the farming zone for the whole growing season, which likely means more friction with farmers. Informants said that this season more cases of farmer-herder conflict have been reported in Azaza Sogora.

There have been changes within the village in terms of political power. The old staff and bodies of the former regime were dissolved and replaced by new faces. For example, the Change and Services Committee in the village is led by youth (four men and two women) and is currently the most politically powerful body in the village. There are no observed changes in decision-making and power relations among Falatta pastoralists.

Economic hardship and price rises are influencing local decision-making. Informants said that the price of many food items has doubled since 2019 due to the economic crisis all over Sudan. This is influencing consumer behaviour and market trends.

Climate variability and extreme climatic events are affecting production. Informants said that heavy rains flooded agricultural land in 2020. This was followed by a shortage of rain in 2022. Informants consider the current season the best they have had in the last six years.

part

4

National Context

History of Conflict at the State and National Levels

Since its independence in 1956, the contemporary history of Sudan has been shaped by political and civil strife. Complex and interlinked historical, political, economic and social factors have contributed to periodic outbreaks of violence between the state and its peripheries. Decades of political unrest, political manipulation, warring factions and humanitarian crises have resulted in fragile economies, weak institutions and deep social divides in the country.

Rain ed crop farming and pastoralism are the dominant production systems in the rural areas of Sudan. Farmers and herders continue to be dependent on shared systems of natural resource use. However, the symbiosis and environmental cooperation between these two systems have been adversely affected by the ongoing violence across the country (Young and Ismail 2019). For example, in the past, in areas like Darfur and Kordofan, inter-tribal conflicts were mostly seasonal and often triggered by competition over resources. Under the fragile security situation created by violent conflict and as a result of decades of neglect and institutional failure by government and political manipulation of existing local grievances, many farmer-herder clashes have become violent. Since 2003, in many areas across Darfur, inter-tribal disputes have turned into protracted conflicts.

Farmer-herder conflict has been politicized in Sudan. Rather than addressing the root causes of these conflicts and investing in better governance, successive Sudanese governments support one side against the other, thereby exacerbating competition between farmers and herders over land and water (Rottenburg 2008).

Key Features of the Political Economy Context

History of Divisive Policies and Agricultural Policy Bias

A main government strategy has been to take power away from the local level and the peripheries by issuing laws and orders that have allowed the state to control resources, especially land. A clear example is the 1970 Unregistered Land Act. The act allowed the Sudanese government to control about 90 percent of the total area of the country. This includes communal land used for grazing by different pastoralist groups across the country, without taking into consideration their historical land rights. The act also gave government the right to evict local land users (Abukashawa 2021; Komey 2009). Therefore, the question of land remains one of the major root causes of conflict. To pave the way for top-down state land acquisitions, the central government issued additional laws that eroded customary institutions governing local land tenure systems (Komey 2009). Although conflicts in Sudan have many elements, it is notable that most of the violence has taken place in pastoral and agro-pastoral areas (Helland and Sørbø 2013).

The main reason given for centralizing control is to expand large-scale farming, the view being that smallholder crop farming and pastoralism are outdated food production systems. Thereafter, land was allocated by the state for large-scale mechanized farming (Sulieman 2015).

This bias started during the colonial period in the 19th Century when the government at the time began to establish large-scale farming on land used by local traditional users. The government policy stated that the rights of the cultivator should be considered above those of nomadic pastoralists (SCC 1944). This policy of favouring farming at the expense of pastoralism has continued up to now. It has created a hostile environment and worsened the relationship between farmers and pastoralists, who in most cases belong to different ethnic groups. Due to a combination of these factors, many farmer-herder clashes in areas like Kordofan and Darfur have worsened and turned violent, with many lives lost and assets damaged.

In Gadarif State, large-scale mechanized agriculture was started on a few hundred hectares in the 1940s and now covers more than a million hectares. This expansion was at the expense of natural vegetation cover. The horizontal expansion of farming activities rather than the vertical improvement of crop productivity made it one of the hotspots of deforestation in Africa (Sulieman and Elagib 2012). Moreover, one of the major consequences of the rapid expansion of mechanized farming is the creation of inequality in land distribution resulting from the appropriation of land by a few influential elites (Sulieman 2015).

Expansion of Large-Scale Mechanized Agriculture

Based on a top-down approach to economic transformation, Sudan since the 1970s emphasized the vast expansion of large-scale agriculture through major state-owned national projects and privately owned schemes. This transformation was promoted as an instrument for economic growth and fostering export revenue. The ultimate goal was to make the country a '*breadbasket*' for the Middle East (O'Brien 1981). About one decade later, when the drought of the mid-1980s hit the country, it was the food aid coming from outside the country that saved lives (O'Brien 1985). The drastic consequences of the drought were due to a complex combination of political, economic and environmental factors (Cater 1986).

Sudanese policymakers, however, did not learn from the lessons of the drought. This became clear after the fertile soil of the central plains was fully occupied after allowing large-scale mechanized farming to expand into northern marginal areas, despite laws prohibiting large-scale farming in marginal areas due to soil fragility and insufficient and erratic rainfall (Babiker 2012).

The Butana rangelands are a case in point, where large-scale mechanized agriculture has drastically expanded over the last three decades. According to the Mechanized Farming Corporation, the northern frontier of large-scale mechanized agriculture has expanded approximately 300 km to the north. This frontier was put in place because the lands further north are marginal since precipitation does not support sustainable crop cultivation. However, these are excellent rangelands and home to significant groups of agro-pastoralists and transhumant populations (Sørbø 1985). Nevertheless, the Gadarif State Ministry of Agriculture issued an act in 1996 that pushed the frontier for mechanized farming further north (Figure 1). Similar developments have been reported elsewhere in the country, such as in North Kordofan State (Babiker 2008). The northern border for mechanized agriculture in North Kordofan, as defined by law. However, vast areas north of here are tractor-ploughed, a process that is environmentally unsustainable and destructive.

Large-scale farmers in communal rangelands are mainly educated elites, retired civil servants and military officers and traders from the big urban settlements in the region (Bascom 1990). They get access to land through alliances with power holders at the state and local levels (Egemi 2006). In addition, the Sudanese state offers a range of incentives and support to large-scale farmers.

They have access to land at minimal rates, credit at interest rates below inflation, subsidized foodstuffs and subsidized tractor fuel and spare parts (Kadouf and Bruce 1986; Bascom 1990; Elhadary 2010). Bascom (1990) says that large-scale farmers have not been forced to comply with Mechanized Farming Corporation regulations such as establishing shelter belts, following the recommended crop rotations or abiding by regulations that prohibit them from selling, renting, or sharecropping the land. From 2010 to 2012, the head of the Farmers' Union was elected as Governor of Gadarif State while keeping his position in the union. Before being elected as state governor, he was also the President of the Gadarif State Legislative Assembly, which is dominated by large-scale farmers.

The predominance of large-scale farmers' interests in state politics has meant that measures intended to maintain the rights of smallholders and pastoralists are not being considered. It is also clear that the abolition of the Native Administration and Tribal Homelands in 1970, combined with the trend of privatization that has benefited well-connected elites, has led to changes in the way people access land in Sudan (Assal 2009). Therefore, contemporary debates on land grabbing draw attention to the continuing difficulty of politically marginalized communities to access resources, including land (Babiker 2012). Violations of local rights in the name of promoting agricultural investment are triggering endless conflicts in Sudan (Sulieman 2013; Shazali and Ahmed 1999; Helland and Sørbø 2013).

Major Climate Trends

In Sudan, climate change is expected to continue drastically affecting climate patterns. Observed climate change trends across the country include intensification in rainfall variability, much warmer temperatures and more droughts (Hermance 2013). At the local level, climate change is expected to further interact with locally operating environmental factors such as human-made environmental degradation. Sudan exemplifies the role of environmental factors in fueling violent conflicts, such as the destruction of natural vegetation to expand mechanized farming (Selby and Hoffmann 2014).

Major Market Trends that Influence Consumer Preferences

Sudan has been politically and economically unstable since the revolutionary transition in 2019. The economy is suffering from extreme inflation coupled with a high rise in the price of all commodities and services. In response, people are reducing the number of meals per day, cutting out costly foods and trying to earn more by taking on more work (Wiggins et al. 2023). Compared to the scale of hardship created by high prices, responses from actors such as government, donors and NGOs are limited (Wiggins et al. 2023).

Recent Structural Changes and Demographic Trends

Conflicts broke out in Khartoum and several other cities across Sudan in April 2023 between the Sudanese Armed Forces and the Rapid Support Forces. This conflict has displaced nearly three million inhabitants internally and across borders and has doubled the number of people experiencing acute food insecurity to 20.3 million, more than 42% of the country's population[4].

Since the 2019 revolutionary transition, the subsequent military coup in 2021 and the current war in Khartoum and other parts of Sudan, massive political changes have taken place. The situation has crippled national and local formal governments and has encouraged some land grabbers in Gadarif State to take advantage of the volatile situation by trying to push state authorities to issue them land leases to legalize their situation in areas like Butana or the state-owned forests[5]. It is likely that the current political situation will enable even greater rates of land grabbing.

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4 *https://www.fao.org/newsroom/detail/the-sudan--food-security-crisis-intensifies-amid-ongoing-conflict-and-economic-challenges/en*

5 Key informant interview

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Notes

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