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SPARC
Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises

TECHNICAL REPORT

DYNAMISM IN THE DRYLANDS

Evidence from South Sudan for supporting pastoral livelihoods during protracted crises

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The interpretations and opinions expressed in the report are not necessarily those of the people we interviewed, nor of the Supporting Pastoralism and Agriculture in Recurrent and Protracted Crisis (SPARC) programme and its consortium members. The authors are solely responsible for any errors and omissions.

About SPARC

Climate change, armed conflict, environmental fragility and weak governance and the impact these have on natural resource-based livelihoods are among the key drivers of both crisis and poverty for communities in some of the world's most vulnerable and conflict-affected countries.

Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises (SPARC) aims to generate evidence and address knowledge gaps to build the resilience of millions of pastoralists, agro-pastoralists and farmers in these communities in sub-Saharan Africa and the Middle East.

We strive to create impact by using research and evidence to develop knowledge that improves how the UK Foreign, Commonwealth and Development Office (FCDO), donors, non-governmental organisations, local and national governments, and civil society can empower these communities in the context of climate change.

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1. INTRODUCTION

In South Sudan, as in much of Africa's drylands, pastoralists are contending with increasingly frequent and intense shocks and stresses. Protracted conflict and displacement coincide with militarised cattle raiding and cycles of revenge within and between pastoralist communities. Climate change has also exacerbated existing threats, for example, by driving consecutive seasons of generational flooding in much of the country, resulting in significantly limited grazing land and mass livestock loss (FAO, 2021b). Periods of heightened food insecurity also continue to affect pastoral communities in South Sudan, with as many as 8 million people – approximately 70% of the country's population – experiencing acute food insecurity in 2022 (FEWS NET, 2022).

Observers of pastoralism across the drylands of Africa have sometimes suggested more generally that climate change, conflict and other emerging threats make the future of herding in the drylands untenable, and that increasingly disruptive shocks and stresses will drive many households to permanently exit pastoralism (Bisson et al., 2021). To some, pastoralists' movement to towns and their pursuit of non-farm alternatives in response to shocks like flooding and conflict is evidence of pastoralism's decline. This conclusion may drive donor investment or, further, influence government policy in the drylands, which has historically promoted pastoralists' permanent transition to alternative livelihoods and/or settlement (Gebeye, 2016).

However, time and again, pastoralists demonstrate that they are expert at coping with uncertainty, and research indicates that livestock keeping continues to be a viable livelihood in the drylands for many households (Nori and Scoones, 2019; Catley, 2019). A central feature of this resilience lies in herders' ability to strategically adjust the balance of their livelihood portfolios in response to emerging threats (Fitzpatrick and Young, 2016). While some shocks may call for an increased allocation of time and resources to diversified, non-farm activities, others may motivate households to consolidate their livelihood portfolio to focus exclusively on livestock production.

BOX 1: THE IMPORTANCE OF LIVESTOCK IN SOUTH SUDAN

In South Sudan, livestock are central to the lives and livelihoods of most of the population (FAO, 2021a). While many households supplement livestock production with farming activities, household capital, especially in rural areas, is generally held in the form of cattle. Livestock also serve as the primary source of food and income for most households, and investments in herds may offer their owners insurance against future needs (Catley, 2018). Livestock are also central to South Sudanese households' social status, and in much of the country kinship-based social connections are established through the exchange of cattle in the form of bridewealth and other horizontal exchanges. Given the centrality of livestock keeping in the South Sudanese context, and the fact that all respondents for this study identify livestock as their primary livelihood, this report uses the term 'pastoralist' to describe households whose livelihood portfolios may also include other agricultural or non-farm activities.

The ebb and flow of pastoralists' livelihood strategies is linked to the way they perceive and respond to risks amidst emerging hazards. This is aligned with growing appreciation that the long-term implications of livelihood diversification versus consolidation vary by context and circumstance. While the diversity of livelihood portfolios (i.e. the number of different activities in which a household is engaged) is often considered an indicator of resilience, there is growing consensus that what really matters is the diversification of a household's livelihood *risk portfolios* (Sitts, 2019). The adoption of new activities that serve to spread risk and contribute to a household's income stream or assets is likely to contribute positively to household resilience, while diversification to include activities entailing similar or new risks may have the opposite effect (Maxwell, 2017). Pastoralists are aware of this and carefully weigh the risks implied by diversification versus consolidation in the context of different shocks.

While pastoralists pursue short-term adjustments to their livelihood investments in response to specific shocks, they also consider their future and weigh the *long-term* favourability of certain strategies versus others. Within the same communities, and sometimes even the same households, pastoralists' livelihood aspirations may be highly divergent. Emerging hazards – especially those related to conflict and climate change – are driving some to aspire to permanent livelihood diversification, with increased emphasis on non-farm activities, while other individuals and households aspire to *consolidate* their investment in pastoralism, even amidst increasing volatility.

Differences in pastoralists' livelihood aspirations are often tied to a complex web of interacting socioeconomic factors, including wealth, age, rurality, and shock exposure. In diverse drylands contexts, gender is especially influential in determining livelihood aspirations and often explains differences within households (Crossland et al., 2021). When priorities differ between men and women within the same household, decision-making processes range from being entirely male dominated and insensitive to women's priorities to collaborative and inclusive, with men and women supporting one another to pursue distinct yet coordinated livelihood activities (Vincent, 2022). Understanding the changing nature of pastoralists' aspirations, and whose hopes for the future are prioritised when they differ within households, is an important starting point for livelihood-support programmes in the drylands. Aspirations, among other psychosocial factors, like self-esteem and confidence to adapt, are increasingly recognised as critical resilience capacities, and can be accurate predictors of whether households escape poverty traps and are able to recover from shocks and stresses without employing distress strategies (Genicot and Ray, 2017; Frankenberger, 2017).

To paint a comprehensive picture of evolving livelihood trajectories in the drylands, this report draws on three rounds of in-depth interviews (IDIs) with male and female pastoralists conducted between February 2021 and March 2022, as part of the SPARC programme. The

report discusses both the short-term strategies pastoralists use when responding to emerging threats and longer-term changes in terms of pastoralists' aspirations and priorities for the future. This analysis is especially timely for donors and programme implementers weighing livelihood support priorities amidst increasing climate- and conflict-related volatility in the drylands. It is critical that aid actors contextualise short-term changes in households' livelihood strategies in the longer-term ebb and flow of pastoral livelihoods while also accounting for the diverse aspirations and priorities underpinning households' livelihood investments. Should interventions fail to do so, at best, they may not achieve intended impact, and, at worst, they may inadvertently undermine household well-being by derailing people's hopes and plans for the future. The recommendations at the end of this report offer aid actors some concrete options for designing and implementing livelihood support programmes to build resilience in pastoralist contexts.

Methodology

This report is based on in-depth, semi-structured interviews with a panel of 64 pastoralist households living in South Sudan's Unity State. SPARC established this panel in September 2020, with the initial objective of monitoring the impact of the Covid-19 pandemic on agro-pastoral livelihoods. Our research objectives have since evolved to entail a broader consideration of livelihood trajectories, with a particular focus on understanding the ways in which emerging hazards in the drylands may be driving changes in pastoralist livelihood strategies, perceptions and aspirations among men and women.

The panel is composed of households engaged in agro-pastoral livelihood activities residing in towns, rural villages and cattle camps, as well as in the Bentiu Internally Displaced Persons camp. Households were initially recruited to ensure diversity in terms of socioeconomic status. The respondent interviewed from each household often changed between rounds based on availability, plus an intentional effort to learn about different members' perspectives and experiences over time. Respondents were also selected to ensure diversity in terms of age and gender.

Interviews for this study were conducted in Nuer by two South Sudanese researchers, one male and one female, with guidance and support from internationally based counterparts. Periodically during each round of interviews, the study team met to discuss emerging themes and opportunities for further probing in subsequent interviews. Interviews were recorded with respondents' permission, transcribed in English and coded using MAXQDA.

Research sites

This report is based on qualitative interviews conducted in Rubkona County, in the centre of South Sudan's Unity State. Rubkona County is home to an agro-pastoral production system, though livestock keeping, particularly cattle rearing, is far more common and relied upon than cropping (CSRF, 2022). This is in part due to the county's location along the Nile floodplain, which makes agricultural production in the region unreliable. The county produces a deficit of grain, so household diets usually entail a combination of livestock products, including milk, blood and meat, as well as humanitarian food aid and imported staples, particularly from neighbouring Sudan. Rubkona County has historically been a net exporter of livestock, including to neighbouring counties within South Sudan, and to cross-border markets in Sudan

(FEWS NET, 2018). However, this trade has been severely disrupted by decades of conflict, border closures during the Covid-19 pandemic, and severe flooding that has persisted across much of South Sudan since 2019.

Rubkona County was the site of heavy fighting between government and opposition forces during South Sudan's civil war and is also home to South Sudan's largest internally displaced persons (IDP) camp, previously known as the Bentiu Protection of Civilian site, or PoC. The camp, located just outside Bentiu Town, hosts over 100,000 IDPs, many of whom reside in the camp, but travel outside it on a regular basis to conduct business and other livelihood activities. This includes pastoralists, who were interviewed as part of this study, who keep livestock in the areas surrounding the camp.

Bentiu Town, in and around which many interviews for this report were conducted, is home to the county's largest marketplace, and serves as the administrative capital of Unity State. The town is connected by road to cross-border trade routes to the Kordofan region of Sudan. Road access to Juba markets remains unreliable, with the region usually cut off during rainy seasons. During this period, traders can only access Juba markets by river or air.

While the findings in this report are only based on research in Rubkona County, they are likely transferable to other drylands contexts that are similarly affected by conflict and climate shocks – both within and outside South Sudan.

FIGURE 1: RESEARCH SITES

2. RESPONDING TO SHOCKS: THE EBB AND FLOW OF PASTORAL LIVELIHOOD PORTFOLIOS DURING CRISES

'We are pastoralists, but I can't say that herding is better than business or better than farming. All of them are good, and they are complementary to each other. When livestock activities are not flourishing, farming supports the household. If farming is not doing well, maybe in the event of a flood, business supports the household. Then when conditions improve, we go back to our livestock. Everything has its correct and necessary time.'
– Male pastoralist, Bentiu

In South Sudan, pastoralists respond to shifting hazards and emerging threats by reallocating resources within their livelihood portfolios. Under certain circumstances, including times of heighted insecurity and during climate shocks, livestock may expose them to increased risk. During these periods, pastoralists regulate their herd size to minimise risk exposure and may relocate to towns to benefit from humanitarian assistance and/or to pursue small-scale, temporary business activities. Under other circumstances, for example during lean seasons, when stockpiled foods are exhausted before the next harvest is ready, or in response to specific household-level shocks, households may instead seek to consolidate their investments in livestock-related activities and deprioritise their engagement in non-farm activities. They often do so based on an assumption that pastoralism is the most reliable and sustainable source of food security under these circumstances.

The ebb and flow of pastoralists' asset and labour portfolios is especially evident in the distinct strategies they employ in response to different shocks. This section briefly describes respondents' reasoning for pursuing livelihood diversification versus consolidation at different times, including in response to conflict and violence, flooding, food insecurity and idiosyncratic events such as illness or involvement in inter-household conflicts. It also describes the specific ways in which households implement these strategies.

Conflict and violence

During periods of insecurity, livestock – especially cattle – put households at increased risk of raids or other forms of attack. As a result, during periods of conflict many pastoralists seek to decrease their reliance on livestock to protect against losses and to minimise their exposure to violence. For example, respondents explained that in late 2019 and early 2020, armed cattle raiding surged in parts of northern Unity State. This motivated many pastoralists to temporarily downsize their herds. One male herder explained, 'during times of insecurity and [cattle] raids, like before the flooding, it is best to temporarily reduce your cows so you are left with a

manageable number of livestock that you are able to protect' (IDI 109). Another respondent described taking similar measures during an earlier period of insecurity:

> 'In the years 2014–2015, cattle raids were common and armed men from Mayom and Koch attacked cattle owners often. This insecurity encouraged many people to disengage from livestock related activities, and then when the raiding reduced back to normal, they started to accumulate more cows again' (IDI 118).

One strategy that pastoralists described using to moderate herd size during times of insecurity was to sell livestock in local markets. They then used revenue to purchase grain, sugar, milk and other household necessities to offset the loss of reliable food sources that their larger herds provided. In other cases, they described using the money to pursue alternative, non-farm livelihood opportunities on a temporary basis, as they wait for more peaceful conditions to return. As one female pastoralist explained, 'During times of insecurity, we sell our livestock off and use the money to change to small businesses for a while, which cannot be attacked as easily or frequently by criminals' (IDI 104).

Marriage of male household members, and the associated payment of cattle as bridewealth is another strategy households use to regulate herd size. As one young man explained:

> 'When our herds become large, my father sometimes decides that a man in the family must marry with the cows, otherwise the animals will be raided. Marrying helps us to reduce our herd size to levels that prevent us from getting attacked' (IDI 125).

Relatedly, other research from South Sudan highlights that, during protracted crises, households strategically exchange cattle as bridewealth as a means of expanding their social networks. This in turn ensures households have access to broader, more diversified informal networks of reciprocal support that they can turn to in times of future need (Humphrey, Krishnan and Krystalli, 2019).

Flooding

Much of Rubkona County's grazing land has remained continuously submerged since 2020, in what the United Nations (UN) has described as the country's worst flood in more than 60 years. While parts of the county flood on a seasonal basis because of its location on the Nile floodplain, waters failed to recede during the dry period following the 2020 flooding season. Subsequent rainy seasons built upon the 'baseline' level of flooding, which resulted in record flooding in 2021 that has only marginally receded during the 2022 dry seasons (Caldwell, 2022). The flooding emergency has caused widespread displacement and, as of December 2021, resulted in the deaths of an estimated 355,000 cattle, goats and sheep in Unity State (FAO, 2021b).

The severity and scale of current flooding means that pastoralists' options for adaptation, and the degree of choice and strategy underpinning their decisions about livelihood investments, have been limited. For example, flooding cut off local livestock markets from domestic and cross-border trade routes, making it difficult for pastoralists to sell their animals during the crisis. Pastoralists also explained that the unexpected scale and duration of the crisis caused them to miss a narrow window of opportunity to sell animals when local livestock markets were still functioning early in the crisis. As one man whose livestock drowned during the flood recalled:


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'If only I had known that the flooding would remain and my cattle would die, I would have sold them to increase the size of my business in town. Some of my friends sold their cattle before the flooding became bad, and they started businesses. Their businesses are going very well now. If I knew this flooding would displace people and kill animals, I would have sold my cattle when it was still possible' (IDI 119).

Nonetheless, pastoralists are still finding ways to adapt by adjusting their livelihood investments. As flooding conditions worsened in 2021, many respondents trekked cattle to distant grazing areas that remained above the water line, particularly to the village of Rot Riak, which is approximately 60 kilometres north of their places of origin, near Bentiu Town. Respondents explained that usually, young men trekked the cattle to Rot Riak alone, as the livestock were often in poor condition and unable to produce enough milk to feed accompanying family members. In some cases, as one respondent noted, 'later, when the health of cattle improved, and they could produce good quantities of milk, women and children followed young men to Rot Riak' (KII 100).

As a result of this migration, respondents report that Rot Riak has become home to a growing livestock market and a large population of displaced pastoralists over the course of the protracted flood. Animals are typically sold to Sudanese traders. However, because Sudanese traders are reluctant to travel to Rot Riak for fear of being attacked by cattle raiders en route, local Nuer traders typically purchase the animals from the displaced pastoralists on credit and then trek the cattle to the border, where they are purchased by Sudanese businessmen who then take them further north.

In Rot Riak, respondents described prioritising various distinct livelihood strategies. In some cases, pastoralists pursued temporary adaptations that entailed selling a few cattle in the Rot Riak livestock market and leaving their remaining animals with a relative or trusted caretaker for collection once flood waters subside. They would then return to their family members in Bentiu, where they used the revenue they earned at market to buy food and to finance alternative small-scale, non-farm businesses that they hoped would sustain them until the flooding receded. Eventually, they planned to retrieve their livestock from Rot Riak and return to their usual pastoral livelihood activities. Periodically, as flooding conditions have persisted, these respondents have returned to Rot Riak to sell the odd cow, when capital is needed to sustain their temporary businesses or to meet basic household needs.

Respondents described other scenarios in which pastoralist households moved to Rot Riak semi-permanently to remain close to their livestock. Many of these households have established small businesses in Rot Riak's growing marketplace. In some cases, these households were motivated by food-security-related benefits that come from living close to their herd. As one male pastoralist explained:

> Rot Riak has become a business hub because of the flood. Many of the people who were doing business in Bentiu before the flood have decided to stay close to their livestock and to start small businesses there until the floods reduce and they can go home with their animals. (IDI 114)

Lean seasons and other periods of scarcity

Households that cultivate often deplete their food stores in the period before the next harvest, usually sometime between March and August. During this period, pastoralists typically become especially reliant on their herds as sources of food and cash, and the balance of their labour and livelihood investments tends to shift towards livestock and away from non-farm activities. This is because during lean seasons, renewable livestock products (e.g. milk and blood) are widely perceived to be more reliable and sustainable sources of food security than income generated from non-farm market activities. As one pastoralist explained:

> 'During the hunger months, keeping your livestock becomes much more important than earning money by business, so that is what we focus more on. If you don't have livestock, then you can die of hunger. But if you have livestock, you can easily survive and have plenty of food to eat, even if you don't have any cash at home' (IDI 109).

Other respondents emphasised the fact that during lean seasons, individual livestock can occasionally be sold to enable households to purchase additional food from local marketplaces and to diversify diets. As one female pastoralist explained:

> During the time of hunger, when crops have not yielded well that year, people depend so much on livestock for food. Cows and milk can be sold sometimes to get other foods, like vegetables and sugar in the market for the household. (IDI 122)

Household-level shocks

Idiosyncratic shocks may also cause pastoralist households to temporarily adjust their prioritisation of livestock-related livelihood activities versus non-farm alternatives. One such example is the involvement in inter-household disputes. In Nuer culture, altercations and crimes, including adultery, theft and even murder, are typically resolved though the payment of cattle by the perpetrator's family members to the victim's household. Numerous respondents described paying large fines in the form of cattle, and then temporarily increasing their engagement in livestock production to be able to regrow their herds. This may entail purchasing young animals to breed, seeking cattle as gifts from within a pastoralist's kinship network, or refraining from selling animals they would otherwise have sold.

Other types of idiosyncratic shocks, including a family member's illness, can motivate households to temporarily *deprioritise* their engagement in pastoralism. For example, some respondents described selling off livestock to pay for an ailing family member's medical treatment and temporarily relocating to towns to conduct small-scale income generating activities in local marketplaces. Marketplace activities in towns were considered an efficient means of quickly raising money to pay for hospital fees, and they were considered preferable to livestock rearing in these circumstances, which is a slower source of profit that can entail higher transaction costs associated with converting livestock into cash. Respondents also explained that marketplace activities allowed household members to live closer to their ailing relatives while they received care. Following a relative's recovery or death, households often returned to rural areas to resume their focus on livestock keeping.

3. CHANGING LIVELIHOOD PERSPECTIVES AND ASPIRATIONS IN THE DRYLANDS

'Even during a crisis, I am thinking about the future. Life does not stop due to this flood. I have to think about the things that I can do to sustain me today during this problem, and the things I will do differently for the future, after the flooding is gone.'
– Female pastoralist, Bentiu

To understand livelihood trajectories, it is important to consider the short-term strategies that households use to cope with uncertainty, as well as their evolving perceptions of pastoralism and their longer-term livelihood aspirations. As pastoralists adjust their livelihood strategies in response to shocks and stresses, they are also thinking about the future and (re-)assessing the long-term viability of specific livelihood activities.

In South Sudan, increasingly frequent and intense climate- and conflict-related shocks are driving changes in households' perceptions of pastoralism and their long-term livelihood aspirations. In response to emerging hazards, some households aspire to permanently diversify their livelihood portfolios to include non-farm activities, or even to exit pastoralism altogether. Conversely, others in the same community continue to see pastoralism as the most favourable, long-term livelihood strategy, even when considering new, emerging threats. Understanding this divergence is not simple. Narratives from South Sudan demonstrate that differences in pastoralists' perceptions and aspirations are often tied to a complex web of interactive socioeconomic factors, including wealth, gender, age, rurality and shock exposure.[1]

Wealth and herd size

Perhaps counterintuitively, households with a history of owning larger than average herds appear more likely to aspire to non-farm livelihood diversification. Respondents attributed this tendency to a variety of factors.

First, in the event of shocks, households with larger herds are susceptible to livestock loss on a greater scale. When compared to households with smaller herds, who may have an easier time regrowing their herds to pre-shock levels, large-herd households may be less willing to invest in the long and costly process of recovery. As one woman in Rubkona explained:

1 Research on livelihood aspirations in different contexts has led to similar findings. For example, a study in diverse agricultural zones in Kenya concluded that farmers' livelihood aspirations 'differ widely across locations and people, they are framed and shaped by context, their pursuit depends on current status and resources'. See: Mausch, K., Harris, D., Dilley, L., et al. (2021) 'Not all about farming: understanding aspirations can challenge assumptions about rural development' *The European Journal of Development Research* 33(4): 861–884.

> ‘People with big herds suffer huge losses when there are disasters. Some of these people have lost over 100 cows in the current flood alone. That experience is very upsetting to them, and it makes them want to give up on pastoralism forever. But if a person with only two cows loses them, they will be upset but not for long. They will want to come back to livestock keeping quickly’ (IDI 102).

Notably, this finding runs counter to other research on pastoralist livelihood trajectories, which contends that smaller-scale herders are more likely to ‘drop out’ of pastoralist production systems following shocks because, unlike pastoralists with larger herds, they are unable to rely on the reproductive capacity of their remaining animals to regrow their herds (Catley and Aklilu, 2013). This variance in findings may be related to changing perceptions of pastoralism among larger-scale herders and their growing fatigue stemming from intensifying hazards. It should also be noted that for small-scale herders in South Sudan, regrowing herds does not always depend on reproduction (or the purchase) of animals. Small numbers of livestock are readily shared within social networks as part of informal support systems largely based on kinship (Kim et al., 2020). Small-scale herders are likely to rely on their own kin to share enough livestock to get them back to pre-shock levels more easily than larger-scale herders can.

In other cases, heightened susceptibility to violence is motivating households with large herds to seek permanent non-farm livelihood alternatives. One young man described his desire to leave pastoralism to instead pursue small-scale business activities, explaining, ‘we have many cows, and this puts us in danger from raiders. We are tired of always being in danger because of having so many livestock’ (IDI 117).

Other respondents emphasised that households with large herds may be more likely to aspire to non-farm alternatives because their relative wealth allows them to do so. In other words, access to resources may equip these households with a different understanding of feasible, longer-term livelihood strategies. As one man explained:

> ‘People with large herds…can make a plan to sell their cows and use the money to do other livelihood activities. But a poor person with few cows does not even have time to think of those possibilities. We do not dream of selling our few animals, because the money we get would be little, and we won’t know what else to turn to’ (IDI 103).[2]

On the other hand, households with smaller than average herds often described a desire to continue prioritising pastoralism in the long term. This was usually tied to a perception that livestock keeping is the most viable means of maintaining or improving household food security, even in the context of emerging hazards. As one female pastoralist explained:

> Those who are rich with many cows may not be in a hurry to grow their herds because they have enough food to eat. But the people with few livestock will do everything they can to add more so that they can have enough to eat at home. (IDI 102)

2 Based on research on livelihood aspirations in rural Ethiopia, Bernard et al. draw similar conclusions about the linkage between household socioeconomic status and aspirations. They explain that ‘The capacity to aspire is…a navigational capacity. The more privileged in any society simply have used the map of its norms to explore the future more frequently, more realistically and share this knowledge with one another more routinely than their poorer and weaker neighbours. The poorer members, precisely because of their lack of opportunity to practice the use of this navigational capacity (in turn because their situations permit fewer experiments and less easy archiving of alternative futures), have a more brittle horizon of aspirations’. See: Bernard, T., Dercon, S. and Teffesse, A.S. (2012) Beyond fatalism: An empirical exploration of self-efficacy and aspirations failure in Ethiopia. IFPRI.

Other respondents similarly emphasised the intersecting nature of wealth, herd size and livelihood aspirations, noting that motivations for investing in pastoralism often differ depending on a household's economic circumstances. As one male respondent explained:

> 'Poor people with small herds usually want to increase their livestock to have more food at home like milk, and blood. But when wealthy people want to increase their livestock, it is so they can sell some and start other businesses, or sometimes because they want to marry many wives or create a big name for themselves and their families' (IDI 107).

Age

Greater exposure to, and knowledge of non-farm livelihood opportunities means that pastoralist youth are often more likely than their older counterparts to aspire to livelihood diversification. This exposure can come from young peoples' short-term employment in the NGO (non-governmental organisation) sector, receipt of formal education, and the use of social media. Young respondents explained that these experiences have increased their desire to leave rural villages for towns and cities to pursue small-scale business activities, education or employment in the formal sector. As one young man explained, 'as youth today, we want to live in towns and do other things than our fathers. Most of us want to go to school or do business. Young people are more open to change than other generations' (IDI 113).

In other cases, young people explained that they aspired to non-farm diversification because they are most likely to have directly experienced the consequences of violent conflict associated with livestock keeping. Younger respondents sometimes explained that older community members compelled them to engage in cattle raiding, often against their will, and

that their desire to pursue alternative livelihood activities was related to an effort to avert such violence. As one young man explained:

> 'Young people are the ones who have seen the violent consequences of cattle keeping the most. We are the ones who are told to fight with raiders and who go to raid other livestock keepers, not the old people. That makes young people want change' (IDI 109).

On the other hand, young people may also have unique motivations for *increasing* their engagement in livestock keeping. For example in Nuer contexts, weddings are usually conducted using cattle as bridewealth. When seeking to marry, young men are therefore likely to pursue herd expansion strategies, even in the context of shocks. Older male relatives may also temporarily increase their engagement in pastoralism to contribute to dowries on behalf of the groom. As one respondent explained, 'old men may decide that the household should increase their work with livestock when they have sons who want to marry. It is the father's obligation to give his son cows for bridewealth' (IDI 118).

Proximity to towns and markets

Perceptions of pastoralism and long-term livelihood aspirations are often closely related to household proximity to towns and markets. Respondents living in rural villages frequently aspired to consolidate their investment in pastoralism in the future, and rarely described intentions to seek non-farm alternatives. This was based on a perception that for rural households, which are less reliant on markets to meet consumption needs, livestock are the most reliable source of food security even in the context of shifting hazards and emerging threats. The same respondents often cited the fact that livestock can easily be sold when cash is needed for occasional household expenses. As one respondent explained:

> 'In the village, we will continue with pastoralism forever because livestock can help you get food even if you have no money, and you can still change some of your livestock to cash anytime you have needs that require you to go to town' (IDI 133).

Pastoralists living close to, or within towns on the other hand, were more likely to aspire to long-term livelihood diversification. This appears to be related to changing understandings of wealth in areas where households are increasingly reliant on local marketplaces for basic needs. As one respondent explained:

> In towns, households with businesses are more respected and considered wealthier than those who have large herds of cattle, but it is the opposite in villages. Cattle are still most important in the village, but money is becoming most important for those who live in town. (IDI 117)

As cash rapidly replaces the traditional barter economy in towns, some respondents explained that money has become more desirable than cattle, because it is less prone to shock-induced losses. For example, a pastoralist in Rubkona Town with aspirations of growing his small business explained:

> 'Livestock can easily die of disease or be raided, so wealth in the form of livestock can be short-lived. But making businesses that can generate money that can safely be saved in the bank is safer. Even if the bank burns, you can still get your money' (IDI 130).

Gender

Perceptions of pastoralism and peoples' livelihood aspirations are highly gendered. Household-level decisions about whether to pursue livelihood diversification versus consolidation have distinct implications for men and women, which respondents often cited as the basis for favouring one long-term livelihood strategy over another.

For example, men often mentioned marriage and social status as a key to their desire to continue in pastoralism and grow their herds. One male respondent reminisced about a period in the past during which his household was especially invested in livestock keeping:

> 'It made people talk about how wealthy we were, and this brought respect to our family name. As men this was very good because…people were interacting with us more and even asking us to marry their daughters or sisters. Men brought their daughters to our home for marriage without anyone asking, because they were trying to establish a relationship with our family' (IDI 129).

He, and other respondents described an intention to invest in regrowing their herds as quickly as possible following flood-induced losses.

Women on the other hand, often emphasised the inequitable benefits of herd expansion as the basis for aspiring to livelihood diversification. There was a common perception among female respondents that pastoralism's benefits tend to favour male household members, often at the expense of women and children's well-being. For example, many women explained that as herds expand, households tend to grow, as men marry additional wives and father more children. This in turn increases the caretaking responsibilities for women and limits their ability to pursue their own economic interests. As one respondent explained:

> 'As women, we want to educate our children in town, to start businesses in the market, and to live where we have access to better health and learning facilities for ourselves and our children. But livestock keeping impedes our social and economic growth because men who keep cattle have desires of marrying many women and that means we must instead focus on feeding the many children that men produce but are unable to provide for' (IDI 125).

Respondents explained that increasing investments in pastoralism also may imply additional manual labour for women. Women are left with little time to dedicate to alternative livelihood activities, which in many cases they may find preferable to pastoralism. One woman aspired to do business selling children's clothes to complement her household's pastoralist activities. She explained that if her household increased its livestock activities in the future, 'there would be no time to do any other things, like go to school or engage in other livelihoods, because livestock keeping will take all my time and labour' (IDI 123).

However, women were not unanimous in aspiring to livelihood diversification. Some women felt that any de-prioritisation of livestock keeping risked exposing the household to increased food insecurity. This risk has specific implications for women, who are typically considered responsible for finding food for households during lean seasons and other periods of scarcity. Doing so often requires them to employ risky strategies, such as collecting firewood in insecure areas, or walking long distances in search of wild foods. As a result, for some women, any potential benefits of diversification were outweighed by the uncertainty and risk associated with adopting new livelihood strategies.

4. NAVIGATING MEN'S AND WOMEN'S DIVERGENT LIVELIHOOD PRIORITIES AMIDST CRISES

'These days there are often differences of opinion between men and women about livestock livelihood changes. Some households clash over their opinions even to the point of divorce, but some households appreciate women's opinions and choices about livestock livelihood changes and make decisions together.'
– Male pastoralist, Bentiu Town

Divergent perspectives of pastoralism within the same household appear to be increasingly common, with livelihood priorities differing most notably by gender. In these cases, men tend to favour consolidation of pastoralist livelihoods, with women instead seeking opportunities for non-farm diversification. These circumstances are developing at the nexus of climate change, conflict, displacement, urbanisation and the growing appeal and reach of cash in rural settings.

A common trend is for rural pastoralist households to be displaced to towns or camps, because of shocks including conflict and flooding. During their displacement, household members may pursue a variety of non-farm livelihood strategies on a temporary basis while waiting for conditions back home to improve. Living in towns exposes pastoralist households to new challenges, but also opportunities. This is particularly the case for women, who often celebrated being able to enrol their children in schools, or to start a variety of small-scale business activities in local marketplaces. As one female respondent explained:

> 'Women who were in the cattle camps with their households ran to towns after their livestock were looted and because of this flooding. In town, some of them were able to start new livelihood activities for the first time, such as tea-making, firewood selling, vegetable selling and bread selling. Others were employed by humanitarian organisations and companies as cleaners and cooks' (IDI 122).

But, as conditions begin to stabilise in their rural communities of origin, men were often eager to return home to their livestock activities while women wished to stay in towns to continue pursuing non-farm activities. It is in this context that differences in men's and women's perspectives about pastoralism become most pronounced. This section discusses the ways in which households are navigating these divergent livelihood priorities.

Male-dominated decision-making

In some households, decision-making about livelihood strategies is entirely dominated by men. In these cases, men determine livelihood portfolios for the entire household, including the activities that women must prioritise. As one female respondent recalled:

> 'It was my father who made all the decisions because he was the head of the family. He asked me to stop going to school and to look after the livestock instead when his herd grew large. I obeyed his orders of course. In Nuer culture, a man is the one who makes all the decisions' (IDI 102).

Women in these households are also excluded from discussions about pastoralism, including about whether to return to livestock activities in rural contexts following displacement to towns, but also about whether and when to sell animals, and how to allocate profits from doing so.[3]

When women express disagreement with men's decisions about livestock, this often serves as a source of tension. As one woman explained, 'In some households, men do not consider female members' interests and needs. If a woman has a differing opinion about livestock, that brings a fierce conflict in the household' (IDI 133). In some cases, disagreements about pastoralism and women's desires to pursue alternative livelihoods can lead to violence. As one female respondent explained:

> 'If there are livelihood activities to be pursued, men take the lead, and they only involve women after decisions are made. One of my friends, a woman, shared her opinion with her husband about a business idea she wanted to establish in Bentiu market. On hearing it, her husband beat her nearly to death, accusing her that she had love affairs with a certain trader in the market' (IDI 120).

Collaborative approaches to diversification

In other households, men and women discuss livelihood strategies more collaboratively, and support one another to pursue complementary activities that bring distinct benefits to the household. This often entails male pastoralists encouraging and actively supporting female household members to pursue non-farm activities. These households tend to reside in or close to towns, allowing for livelihood portfolios that incorporate both marketplace and rural pastoralist activities.

Respondents explained that these households perceive various benefits of diversification, including having insurance in the case of livestock loss, and reliable access to cash for basic household needs. One woman recalled:

> 'It was my husband who motivated me to start a business for three reasons: one reason is that he did not want to keep me in the house to do household chores such as cooking, nursing babies, fetching water and firewood. He wanted me to be self-reliant so that I would not disturb him to give me money to plait my hair, buy my clothing and for treating myself and my children. The second reason is that I would be able to support my ailing mother with her treatment, using the little money I get from the business. The third reason is that in the event that my husband has problems with his livestock, we would have a backup and other source of livelihood' (IDI 120).

Other respondents described cases in which men periodically sold livestock to raise capital specifically to support the expansion of their wives' small businesses. Similarly, cash generated

3 Notably, women described being far more actively consulted about decisions to do with agricultural activities, as well as having some autonomy about whether to sell produce and what to do with the profits.

by women's business activities is sometimes used to buy livestock. This collaborative and integrated livelihood strategy is likely to be particularly beneficial in the context of uncertainty related to conflict, climate change and other hazards. As one male respondent recalled:

> 'I have a neighbour whose wife opened a vegetable business, but it was not growing because her farm was very small and the vegetables were sold at the open air market in the hot sun. My neighbour sold two cows to support his wife's business. With the money, his wife bought some land and expanded her vegetable garden. She also constructed a temporary shelter for her sales. As we talk now, the business has grown big and fetches a lot of money for that household. The cash from her business helped them during this period of flooding' (IDI 111).

Household splitting

A third, closely related approach to navigating divergent priorities entails a less integrated form of livelihood diversification, whereby households geographically separate to allow men and women to pursue distinct activities.[4] In this scenario, some women may stay in towns where they conduct small business activities and enrol children in schools, while other household members may return to pastoralist activities in rural villages and distant cattle camps. Despite being geographically split, household members continue to coordinate the rural and town-based activities in their livelihood portfolios. For example, respondents explained that in some cases, members residing in rural areas send milk and farm produce to family members who live in towns. One woman, whose family was displaced to Bentiu Town due to the current flooding disaster, described her intentions to separate as follows:

> 'My husband and I have been talking about our future involvement in livestock activities. As soon as the flood subsides, we will sit down as a family and agree who will remain with the children in Rubkona and who will go back to the village to rebuild [our] home and take care of our livestock…My husband will go and his younger wife might go as well, but I hope to remain in town to educate our children because there are no schools in the village…In town, people buy milk and food in the market, but when my husband goes to rebuild the home in the village, we will not have to spend money like others because we will receive milk from our livestock and food from our farms in the village' (IDI 134).

While household splitting and urban migration is a common livelihood strategy in pastoralist communities across the drylands, it is most often young male household members who migrate to towns to remit support to kin who remain with livestock in rural areas. Research from other pastoralist contexts in Africa shows that pastoralist women, to the extent of migrating to towns alone, usually do so after having been widowed or abandoned by male relatives (Stites, 2020). However, in Rubkona County, displacement and changing livelihood priorities appear to be driving a distinct pattern, with women choosing to remain in towns and men returning to villages and sending in-kind support to women and children.

4 For a more complete analysis of household splitting in pastoralist communities, including a discussion of the economic capacities that may be required to enable households to pursue this livelihood strategy, see: Stites, E. (2020) '"The Only Place to Do This is in Town": Experiences of Rural–Urban Migration in Northern Karamoja, Uganda' *Nomadic Peoples* 24(1): 32–55.

5. DISCUSSION

The findings in this report demonstrate that pastoralists are rational actors whose livelihood investments change as a function of dynamic circumstances. They do not blindly aspire to herd expansion. Rather, they have nuanced understandings of when and how to adjust their livelihood strategies in light of emerging threats. While some shocks motivate households to prioritise diversification, others may require them to consolidate their livelihood portfolios and to prioritise pastoralism.

Interviews also point to the temporary nature of specific strategies and highlight the importance of contextualising households' livelihood prioritisations in the long-term ebb and flow of pastoralist production systems. For example, the current flooding emergency in Rubkona County has caused many households to reduce the time and resources they invest in pastoralism in favour of non-farm alternatives. However, this strategy may well be reversed as conditions stabilise, or as new and different threats emerge. It would therefore be unwise to draw conclusions about the long-term viability of a specific livelihood strategy based on a single snapshot in time.

These findings are aligned with a growing body of research that suggests livelihood diversification does not always indicate increased household resilience to shocks and stresses, as is often assumed to be the case. Rather, the merits of livelihood diversification versus consolidation are determined in large part by the specific hazards affecting communities at a given time and the distinct risk profiles that accompany different livelihood activities in the context of these hazards (Bushby and Stites, 2016). For example, many respondents in this study explained that diversification risks exposing them to increased food insecurity because investments in non-farm activities would come at the expense of livestock production, which they consider to be the most reliable source of food during times of scarcity. Conversely, households prioritised diversification during times of elevated conflict based on an understanding that livestock ownership exposes them to increased risk of violence.

While a rigorous economic analysis is beyond the scope of this report, it is also important to note that the motivations underpinning specific livelihood strategies and their longer-term contributions to household well-being may be closely linked to a household's socioeconomic status. That is, relatively wealthy households may pursue a particular strategy opportunistically, while poorer households may do the same thing, but from a place of desperation or when faced with highly limited options. For instance, research from other drylands contexts suggests that while households that are relatively better off can benefit greatly from diversifying through household splitting (i.e. having a town base and a rural/pastoral base), for others household splitting (and other efforts to engage in town-based labour) can be an act of desperation and a strategy aimed at basic survival, which may prove ineffective in the long term (Stites, 2020; Stites, Atim and Tracey, 2019). Importantly, most respondents interviewed in this study appear to fall into the first household splitting category based on their descriptions of actively weighing the merits of specific livelihood strategies and tactically *choosing* which to prioritise in light of specific shocks.[5]

5 Future SPARC research will more explicitly examine the extent to which household economic status may determine livelihood-related decisions, and the contributions of particular strategies to household well-being.

For these households, determining the appropriate livelihood strategy to prioritise may become especially complex when shocks that demand divergent approaches overlap (i.e. diversification versus consolidation). In these cases, household decisions likely differ based on their specific circumstances and their longer-term livelihood aspirations. A consideration of both the short-term strategies pastoralists use to contend with uncertainty as well as their longer-term livelihood aspirations is therefore critical to understanding livelihood dynamics and the determinants of resilience in the drylands.

In South Sudan, livelihood aspirations and perceptions of pastoralism vary dramatically between and within households. These variations are closely linked to a complex set of intersecting identities, experiences and socioeconomic characteristics, including but likely not limited to wealth, age, gender, rurality and shock exposure. *Within* households, these differences are often especially pronounced between genders, and the livelihood strategies that a household prioritises may have unique implications for the labour, safety and well-being of men and women. Importantly, the processes by which households make decisions about livelihood investments vary in terms of their inclusivity and whose interests are prioritised.

It is important that livelihood support programmes consider this complexity and the varied factors that shape household and individual priorities for the future. Even in the context of acute emergencies, pastoralists continue to consider the livelihood strategies that will contribute to their longer-term well-being. Aid should reflect this fact and account for immediate-term needs while also working to equip people to pursue longer-term livelihood objectives and aspirations. If interventions fail to reflect households' long-term priorities, their impact may be at best curtailed. At worst, they may inadvertently undermine household well-being by derailing people's hopes and plans for the future. This is a particular risk when interventions are designed and targeted based on assessments that generalise livelihood support needs to broad subpopulations based on snapshots of conditions at a specific time.

Finally, despite clear divergences in the respondents' livelihood priorities, it is important to acknowledge that the aspirations that both male and female respondents described in this study were fairly limited in scope. Generally, they entailed either increasing their investments in livestock or diversifying their livelihood portfolios by starting small businesses in local marketplaces (less often, they nodded to increasing the priority of farming activities). The considerations underpinning respondents' hopes for the future usually revolved around ensuring basic needs, especially food security and physical safety. It was rare for respondents to describe more ambitious goals related to the long-term, structural improvements in household well-being. This may be in part the result of a limited ability to imagine and plan for a fundamentally different future when faced with persistent and serious threats to household well-being in the immediate term. Evidence suggests that aid actors may be able to support pastoralists in the drylands by working to build individuals' own capacities to aspire for the future. Indeed, psychosocial programming, including interventions that work to strengthen aspirational capacities – or the ability to be 'future-oriented…[in one's] hopes, desires, ambitions and wishes to attain or accomplish a particular goal' – are increasingly recognised as essential building blocks to household resilience (USAID Center for Resilience, 2018).

When considered in sum, the findings in this report highlight the dynamism of pastoralist livelihoods in the drylands. Emerging hazards, particularly those related to climate change and conflict, inspire diverse short-term strategies, including efforts to both consolidate and diversify pastoralist livelihood portfolios. Changing hazards are also leading to shifts in household and individual livelihood perceptions, and long-term priorities and aspirations. When defining investment priorities, donors should widen the aperture through which they view pastoralism. This means considering both the short- and long-term concerns that underpin household livelihood-related decisions, and accounting for the diversity of perspectives and priorities that exist within pastoral communities.

6. RECOMMENDATIONS

The findings in this report have various short- and longer-term implications for livelihood support interventions in the drylands. Generally, the recommendations presented below are geared towards enabling individuals and households to have access to a broader set of livelihood-related options, and to be able to make and act on informed decisions about livelihood investments on their own terms. The recommendations below range from shorter-term measures with a largely humanitarian focus, to longer-term, development-focused measures.

Livelihood interventions should promote flexibility and seek to support the diversity of strategies that pastoralists use to respond to shocks. The flexibility of unrestricted cash, as opposed to conditional transfers or the distribution of inputs designed to support livelihood-specific outcomes, may be best suited to supporting pastoralists to make strategic decisions about their own livelihood investments in the context of shocks and stresses. Evidence from other locations also suggests that larger lump-sum transfers, rather than smaller incremental instalments, are more likely to enable households to either maintain productive aspects of their livelihoods or to invest in new livelihood activities during crises (Kurtz et al., 2021). However, additional research is needed to determine how cash interventions can best be designed with the specific objective of supporting livelihood protection outcomes in pastoral contexts in South Sudan and beyond. For example, there is a particular need for context-specific evidence about how much money pastoralists require to pursue specific strategies in response to shocks; who aid actors should target for assistance; and when, in the context of the 'crisis calendar,' transfers should be made to achieve the greatest impact.

Redouble investments in market-based interventions that have been proven to build pastoralists' resilience to shocks. When facing shocks, pastoralists often rely on selling livestock to finance a variety of livelihood strategies. Market-based interventions that are especially promising are 1) working to stimulate continued trade in unfavourable conditions and 2) specifically designed to enable pastoralists to sell more livestock, more efficiently, and at higher prices. This may include market-based commercial destocking interventions or the use of smart subsidies or other financing mechanisms that increase available working capital and enable traders to offtake more animals or hire necessary labour and transport. However, it is essential that these interventions are customised to address the unique effects that different shocks have on livestock markets, as well as the root causes of pastoralists' inability to sell animals and the underlying drivers of low animal prices. For guidance on how to design and when to implement contextualised market-based responses, aid actors should harness existing tools, such as the Livestock Emergency Guidelines and Standards (LEGS), that offer aid actors clear decision-making guidance on how to work through markets to support pastoralists during crises (LEGS, 2017).

Aid actors should equip pastoralists with the information they need to proactively adjust their livelihood strategies ahead of shocks. When able to access timely, trustworthy and actionable information, pastoralists consulted in this study were more likely to make proactive – rather than responsive – adjustments to their livelihood strategies. Doing so may help them avert losses and recover more quickly from livelihood disruptions. Investing in multi-hazard early warning systems may be an important step to ensuring pastoralists are able to

implement proactive livelihood strategies. Given the fact that distrust in formal information sources can be a deterrent to the uptake of early warning messaging (McCaughey et al., 2017), aid actors should channel information though informal social networks, which other research from South Sudan suggests are among households' most important sources of information during crises (Kim et al., 2021). This should entail engaging diverse community stakeholders as information conduits, to ensure that early warning information reaches as many people as possible, including those who may be marginalised based on factors such as location, ethnic dynamics, cultural norms, gender relations and socioeconomic status.

To build resilience in the drylands, aid actors should harness the proven link between psychosocial and economic well-being. This may entail investing in programming that boosts individuals' livelihood-related aspirations and confidence. Respondents in this study described a relatively narrow set of aspirations that generally centred on meeting basic needs, as opposed to achieving structural improvements in socioeconomic well-being. Research suggests that individuals who receive psychosocial support, including interventions designed to build social capacities such as self-efficacy, aspirations and optimism about the future, show improved economic, consumption and small business outcomes (Bossuroy et al., 2022; Campos et al., 2017). In pastoralist contexts, psychosocial interventions that seek to boost livelihood aspirations, particularly among traditionally marginalised groups, and provide households with the skills and resources required to set and act on goals are especially promising programming opportunities.

Design interventions to address the distinct implications that livelihood strategies have for women's well-being. The livelihood strategies households employ in response to shocks may introduce new opportunities for women, such as exposure to markets and formal education, as well as new risks, such as increased time poverty and protection risks. Livelihood support interventions should account for and seek to mitigate risks to women that are associated with various common livelihood strategies, while also redoubling efforts to ensure women are able to directly benefit from engagement in livestock value chains. Further, aid actors should ensure that investments that support women's non-farm livelihoods accompany interventions that primarily target livestock value chains because many female pastoralists are seeking opportunities to engage in diversified town-based livelihood activities.

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IDI 109	Interview with male pastoralist in Bentiu Town, March 2022
IDI 111	Interview with male pastoralist in Rubkona Town, March 2022
IDI 104	Interview with female pastoralist in Bentiu Town, March 2022
IDI 125	Interview with male pastoralist in Bentiu Town, November 2021
IDI 119	Interview with male pastoralist, Rubkona Town, November 2021
IDI 100	Interview with male key informant (NGO employee) in Bentiu, October 2022
IDI 114	Interview with male pastoralist in Rot Riak, March 2022
IDI 122	Interview with female pastoralist in Bentiu Town, November 2021
IDI 102	Interview with female pastoralist in Rubkona Town, March 2022
IDI 103	Interview with male pastoralist in Rubkona Town, November 2021
IDI 117	Interview with male pastoralist in Bentiu Town, March 2022
IDI 107	Interview with male pastoralist in Bentiu Town, November 2021
IDI 113	Interview with female pastoralist in Rubkona Town, November 2021
IDI 118	Interview with male pastoralist in Bentiu Town, November 2021
IDI 133	Interview with female pastoralist in Bentiu Town, March 2022
IDI 130	Interview with male pastoralist in Bentiu Town, March 2022
IDI 129	Interview with male pastoralist in Bentiu Town, March 2022
IDI 123	Interview with female pastoralist in Bentiu Town, March 2022
IDI 120	Interview with female pastoralist in Bentiu Town, November 2021
IDI 134	Interview with female pastoralist in Rubkona Town, March 2022

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