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Climate change and conflict in South Sudan: Community perceptions and implications for conflict-sensitive aid

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Acronyms

CSRF	Conflict Sensitivity Resource Facility
GPPA	Greater Pibor Administrative Area
NAP	South Sudan National Action Plan
SSPDF	South Sudan People’s Defence Forces
ACLED	Armed Conflict Locations and Events Data
KII	Key Informant Interviews
FGDs	Focus Group Discussions
LOPEA	Lokichoggio Peace Organisation
FAO	United Nations Food and Agriculture Organisation
CRS	Catholic Relief Services
SPLM/A	Sudan People’s Liberation Movement/Army
RRC	Relief and Rehabilitation Coordinator
UNMISS	United Nations Mission in South Sudan
EWER	Early Warning and Early Response

Executive summary

This report explores the nexus between climate change, conflict and aid by focusing on community perceptions of climate change patterns and trends, perceptions of how climate and conflict interact, perceptions of aid and conflict sensitivity considerations, and the extent to which the aid sector has been integrating climate and conflict sensitivity strategies into their interventions in the case study locations. It draws on existing literature and field research conducted in two case study locations: Kapoeta in Eastern Equatoria State, and the Mangala-Bor Corridor, between Jonglei and Central Equatoria States. It aims to identify and reflect some perspectives of South Sudanese affected by both climate change and conflict. Following an introduction, Sections 2 and 3 present findings from community consultations in the two case study locations. Section 4 discusses consolidated findings, and Section 5 offers concluding remarks and recommendations for aid agencies working in South Sudan.

Key findings from Kapoeta

Communities in Kapoeta reported anecdotal experience of increased frequency, severity, and length of dry periods and droughts, which are associated with loss of pastureland, drying up of ponds, and crop failures over the last 20 years. Many interviewees reported that changing climatic conditions increased the prevalence of invasive weed species, changed the pattern of wildlife movements, and induced new human and animal diseases, affecting communities. Respondents also linked the effects of climate change to the risk of conflict under some circumstances. Participants described how, as dry spells have become longer, pastoralists have altered migration patterns, sometimes encroaching onto land considered to be the preserve of other tribal communities and staying longer in locations where water and pasture remain available. The subsequent pressures on scarce natural resources have contributed to tensions flaring between communities, although notably this tended to be more specifically when these communities have pre-existing grievances. Where communities have a history of previous co-operation over access to pastureland and water, tensions appeared to be rarely exacerbated.

Participants also identified conflict sensitivity challenges faced by aid agencies operating there. Perceived unfairness in employment opportunities, inequality in access to food aid and an inadequate level of humanitarian response were all cited as common grievances. Aid agencies operating in Kapoeta recognise many of the challenges associated with climate change and conflict. However, we identified a few examples of aid actors prioritising conflict or climate-sensitive action in practice in Kapoeta.

Key findings from the Mangala-Bor Corridor

The main climatic challenge identified in the Mangala¹-Bor corridor was an increase in the prevalence and severity of flooding. This has undermined many of the coping strategies previously available to communities, resulting in the mass displacement of people into neighbouring areas and the swelling of the already over-crowded IDP camps. The resultant pressures on land, and resources and services, have exacerbated existing tensions within and between communities. On-going insecurity across much of Jonglei State and the Greater Pibor Administrative Area (GPAA), coupled with the expansion of flooded areas, has forced many Dinka pastoralists to change their seasonal migratory patterns. As pastoralists move further south, they have increasingly come into conflict with Equatorian farmers, who see the arrival of the cattle camps as a threat to their livelihoods.

Participants pointed to a range of conflict sensitivity challenges faced by aid agencies. Many people noted that aid responses risk exacerbating tensions between IDPs and host communities in Mangala if relief aid distributions are seen to disproportionately benefit one community over the other. IDPs highlighted what they saw as an inadequate and poorly targeted response by aid actors as a source of tension, with several blaming this on the politicisation of their displacement. The view that aid

agencies offered only limited and short-lived support, to avoid accusations of incentivising them to stay longer in the area, was shared by several people. Tensions between host and IDP communities in Mangala Town have been further complicated by the establishment of competing governance arrangements by the governments of Jonglei and Central Equatoria States. Thus, even though some aid agencies in Mangala and Bor are aware of many of these risks, few seem to have the capacities or expertise to support integrated conflict and climate sensitive action.

Consolidated analysis and implications

Such climatic changes have significant consequences on people in South Sudan, with varying levels of severity and impact on communities. Communities that are already displaced or reliant on aid face the dire consequences of climate change, and women and other marginalised groups are among the most vulnerable to the effects of climate change. Those with access to more diversified livelihood strategies, such as regular employment or active engagement in the market economy, or with access to powerful political patronage networks, are likely to be least adversely impacted by climate change. Across both case study locations, we found evidence that climate change is exacerbating tensions and triggering conflicts between certain groups, and in some instances making violent conflict more likely. Participants described increasing tensions as Toposa and Dinka Bor pastoralists have altered their annual migratory patterns due to flooding or drought. Yet, communities also described how insecurity and conflict were inhibiting their ability to effectively adapt to the effects of climate change, creating a vicious cycle in which climate and conflict impacts become self-reinforcing.

At the same time, the case studies illustrate that the links between conflict and climate change are complex and can only be understood in conjunction with an awareness of broader social, political, economic and gender dynamics within affected communities. Participants in both case studies, for example, pointed to the strength of pre-existing social or familial ties and a history of 'cordial social relations' between communities, as critical determinants of whether potential tensions resulting from changing migration patterns or increased pressure on resources, resulted in increased tension or greater levels of mutual dependency and co-operation.

The impacts of climate change and their links with conflict are highly gendered. Women in both locations are disproportionately affected by increased scarcity of potable water and crop failure on account of their roles as the primary providers of food and water, as well as carers of children and older people. Generally, lower levels of literacy and social standing mean that women often have fewer alternative-livelihood options than men, when displaced from their communities. In some instances, this is forcing women to engage in risky activities, such as travelling further to access water, child marriage, brewing, and selling of alcohol or prostitution. The social standing of men, however, is intimately linked to their ability to build and maintain a herd of cattle. As the effects of climate change make this more difficult, so the incentives motivating men and boys to engage in cattle raiding or other forms of organised violence, such as joining militia or armed groups, become stronger.

Finally, aid actors face a range of tricky conflict sensitivity challenges in their work in both case study locations, and that there has been an insufficiently strong focus on integrating conflict-sensitive approaches into responding to the needs of communities affected by climate change. The impact of climate change on community resilience, already intense, is only likely to escalate over the coming years. Subsequently, needs will almost certainly increase and the challenges that aid agencies face will become more complex.

Recommendations

International Donors and UN agencies at the national level should:

- Review the South Sudan National Action Plan (NAP), adopted in November 2021, from a conflict sensitivity perspective, and consider whether and how implementation contribute to social cohesion and conflict prevention.

International Donors and UN agencies with operations in Kapoeta and/or Mangala-Bor should:

- Ensure that durable solutions to displacement crises recognise and address both the push and pull factors related to climate and conflict driving displacements and avoid exacerbating tensions between displaced and host communities.
- Work with local government and community groups to identify and support transhumance corridors, designate seasonal migratory routes and establish or support locally accepted mechanisms to negotiate shared access to scarce resources for pastoralist and farmers and host communities.
- Ensure that learning from previous examples of successful climate adaptation and conflict resolution mechanisms employed by communities across South Sudan is captured and disseminated across the aid community in the country.

International Donors, UN agencies and INGOs with operations in Kapoeta and/or -Mangala-Bor should:

- Identify and support mechanisms used to build dialogue and facilitate shared access to scarce resources across communities. Agencies should avoid creating or imposing new mechanisms where existing systems may be in place, and which may enjoy greater legitimacy than anything introduced from outside.
- Ensure the design and implementation of flood management and drought alleviation systems are informed by broad-based community consultations, including with people from across social and ethnic divisions.
- Provide targeted support for women and girls to build resilience to both climatic and conflict - related shocks.

INGOs, and other operational aid agencies working in Kapoeta and Mangala-Bor should:

- Acknowledge and take action to address grievances over access to employment held by many young people in Kapoeta, Mangala and Bor.
- Ensure that eligibility criteria used to identify and prioritise recipients of aid enjoy broad-based community buy-in.

1. Introduction

South Sudan is one of the most vulnerable countries to the effects of climate change in Africa. According to the [2021 Global Climate Risk Index](#), the effects of conflict, fragile formal governance institutions, coupled with the population's reliance on natural resources and rain-fed subsistence agriculture and pastoralism, make the country particularly vulnerable to projected climatic variations. The effects are already being felt by communities across the country. Average rainfall has declined by 10% - 20% and temperatures have risen by more than 1 degree Celsius in the last 40 years.² Droughts and floods have become both more common and more severe, with [62% of the population](#) surveyed by the National Bureau of Statistics in 2009 saying they suffered floods and droughts in the last 5 years.³ Over the last four years, the country has been experiencing the biggest floods in living memory, displacing over half a million people and contributing to one of the worst humanitarian crises the country has suffered. Recent reports from the UN World Food Program estimate that [about 8.3 million people](#) in South Sudan faced extreme levels of hunger in 2022 due to a combination of floods, droughts, COVID-19, and conflict. This is the highest number of persons exposed to extreme hunger since the country's independence in 2011, and perhaps the worst on record.

While communities are grappling with the effects of increasingly erratic climate conditions, the country continues to suffer from recurrent bouts of violent conflict and persistent insecurity. Despite the peace agreement and the subsequent political process that brought the civil war to an end, localised and subnational violence has remained a major problem in many parts of the country. The regions of Abyei, Upper Nile and the GPAA, for example, have all seen bouts of heavy fighting and persistent levels of insecurity in early 2023. This has resulted in many deaths and displacement of civilians from their places of origin, with some fleeing to safer locations, such as towns, IDP sites, and remote and swampy areas. The violence is the result of a combination of factors, including competition for resources and power, and is often blamed on local youth, armed groups, and local elites. The South Sudan People's Defence Forces (SSPDF) have been deployed to some of these hotspots to reduce or stop the violence, with little success so far. It is feared that if the violence continues to spread, it risks undermining the implementation of the ongoing peace deal, especially the preparation for the upcoming census and election.

Over the last decade, researchers have increasingly focused on the links between climate change and conflict. This has led to research illustrating that in many contexts, climate change can exacerbate existing tensions between groups, potentially contributing to conflict, by aggravating pressures over access to resources, undermining livelihood strategies, and altering migration patterns. The impact is felt particularly strongly in contexts, such as South Sudan, which [rely on rain-fed agriculture](#),⁴ and have [poor road infrastructure](#),⁵ insufficient [water sources](#), and weak and fragile institutions.⁶ Furthermore, the implementation of climate adaptation strategies themselves can also be a cause of conflict. Construction of climate adaptation infrastructure (dykes, dams, green energy plants, etc.), for example, if not informed by conflict-sensitive practice, can create tensions by displacing communities, becoming opportunities for corruption or enabling the unequal sharing of costs and benefits across a society.⁷ Countries suffering from conflict and violence meanwhile are often least well prepared to manage the impacts of climate change for vulnerable communities. They are least likely to have climate resilient infrastructure, or to have ready access to resources needed to develop it. They are also unlikely to have sufficiently diversified economies to allow them to maximise potential opportunities presented by climate change (by investing in green technologies, for example), while poorly functioning or corrupt public administration systems may mean that trust in governments to create direct climate change adaptation strategies in line with community needs is missing.⁸

Despite growing interest in the relationship between conflict and climate change, little work has been done in communities to examine how they perceive and experience these dynamics within specific contexts. There has been even less work looking at the implications for aid interventions in these contexts. This report goes some way to addressing this gap by examining the interaction between

climate change and conflict and aid in two specific locations in South Sudan. It considers how aid agencies are integrating climate and conflict sensitivity into their interventions, explores the implications for climate and conflict sensitive aid, and provides recommendations for aid practitioners and policymakers on ensuring climate and conflict-sensitive aid in South Sudan.

Methodology

The findings draw on a series of semi-structured interviews and focus group discussions conducted with a diverse range of respondents in two case study locations: Kapoeta and the Mangala-Bor Corridor.⁹ Findings were complemented by a desk review of relevant literature focused on the nexus between climate change and conflict in South Sudan. The desk review included the analysis of armed conflict locations and events data (ACLED), as well as climate disaster incidents data over the last 100 years.¹⁰ The case study locations were selected to provide a diversity of environmental and conflict-related challenges.¹¹

In total, over 40 key informant interviews (KII) and 19 Focus Group Discussions (FGDs) were conducted, with aid workers, community leaders, local government officials, traditional leaders, farmers, pastoralists, young women and men, women, as well as recipients and non-recipients of aid. In total, about 200 people participated in the research, including 73 women. Fieldwork was conducted between 12 October and 1 November 2022 in Kapoeta (Kapoeta East, Kapoeta North, and Kapoeta South Counties), as well as in Mangala and Bor Towns and in four cattle camps in surrounding areas.

In Kapoeta, a total of 15 KIIs and six FGDs were conducted. FGDs were conducted with young women, young men, older women and male elders. In Mangala, eight KIIs were conducted, as well as a total of nine FGDs, conducted with Bari, Mundari, Dinka IDPs and Dinka cattle camp members. In Bor, four FGDs and 14 KIIs with local communities, authorities and IDPs, and in Juba, three KIIs. A small number of additional interviews were conducted in Juba to triangulate the findings from the fieldwork.

Field research was carried out by the lead author who was accompanied by a Research Advisor from the CSRF to Kapoeta, and by a research associate to Mangala-Bor Corridor. The research design and data collection tools were informed by consultation with a reference group consisting of one expert each from a donor agency, the UN, an INGO and a local civil society organisation. An independent consultant provided review and technical support.

Structure

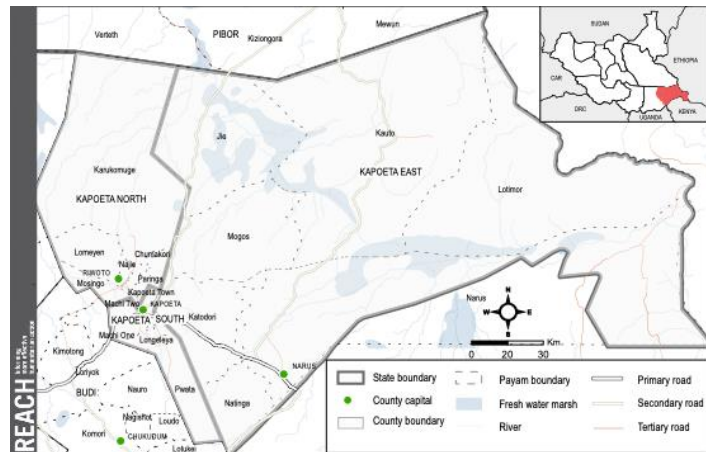
Following this introduction, Sections 2 and 3 present key findings from community consultations in the two case study locations. Section 4 discusses consolidated findings from across the two case studies. Section 5 offers concluding remarks and describes recommendations for aid agencies working in the focus areas and across South Sudan.

2. Case study 1: Kapoeta

Context

Kapoeta is a semi-arid region of Eastern Equatoria State, comprised of three counties: Kapoeta East, Kapoeta North and Kapoeta South. Kapoeta North and Kapoeta East border GPAA to the north, while Kapoeta East shares largely porous borders with Ethiopia and Kenya to the east, as well as a short border with Uganda to the south. The area includes the contested Illemi Triangle, claimed by both Kenya and South Sudan.

The population is made up primarily of Toposa, with a smaller population of Jie, Kachipo and Nyangatom. Most people rely on pastoral or agro-pastoral practices for their livelihood, in part because climatic conditions limit the viability of large-scale crop yields. Pastoral communities typically migrate during the dry season, moving to areas with permanent water sources, predominantly toward the highland areas around Lotimor, as well as into Ethiopia and Kenya. Small-scale subsistence cultivation is common, with crops sown toward the beginning of the rainy season.



Sorghum, maize, vegetables, peanuts and beans, are the most common crops grown by communities. Agro-pastoralists' practices are heavily influenced by fluctuations in climate.¹²

Kapoeta has suffered from persistent insecurity driven by a range of factors for many years. High rates of youth unemployment and competition over access to land, and pasture and resources, coupled with ready availability of arms and militarised notions of masculinity, are all critical factors driving an increase in violent cattle raids between pastoralist communities across the region in recent years.¹³ Long-running tensions between the Toposa and Turkana pastoralists from Kenya, as well as with the Kachipo and other Ethiopian tribes, have been exacerbated as resources have become more strained. Conflicts between the Toposa and the Murle and the Jie from GPAA, and the Buya and Didinga from Budi County, are also driven by competing claims to water and pasture lands. The presence of valuable mineral resources in several of these border regions has complicated matters further. The selling of mining concessions has resulted in large tracts of land becoming inaccessible, while accusations of land grabbing by powerful political and economic actors in the region have inflamed tensions further.¹⁴

Perceptions of climate change patterns and trends

Participants in this study identified trends related to changing climatic conditions in the region, each of which clearly impacts upon their livelihoods, with knock-on effects for humanitarian and development actors working in the region.

There is a widespread view that **droughts are becoming more frequent, prolonged and severe**. Participants across all study locations reported that they had experienced drought in almost every year in the last decade.¹⁵ Several also reported that the rainy season, which normally runs from April until late-October or November, has become both shorter and more erratic, while average temperatures have been increasing over the last 10 years.¹⁶ They associate these changes with both direct and indirect **health issues**. For example, several people linked the increased temperatures with anaemia, headaches and allergies. Participants also linked increased temperatures and erratic rainfall to increased **scarcity of pasture, drying up of ponds and crop failures**, with several pointing out that extreme heat prevents people from working in the fields. An indirect link with an increased

prevalence of animal diseases was also cited, in some cases leading to the death of livestock, degradation of land and increasing rates of food insecurity.

Interview with government official from Kapoeta North County

“Rain is no longer normally coming, and it is becoming hot. There is a drought with serious winds, and it is an extension of dryness from Kenya. Extended dry spell is the greatest climate risk in this area.”

These perceptions are backed up by available scientific data. This suggests that although total rainfall has increased across the Kapoeta region, it has become less predictable with increased incidents of dry spells (sometimes resulting in hydrological drought), as well as sudden downpours resulting in localised flash flooding. Meanwhile, average temperatures have steadily increased, leading to **drier and less productive soils**.¹⁷

Interview with civil society leader in Kapoeta Town

“Last year, it took six months without rainfall. People did not harvest. Small rainfalls came but was not adequate. There has been water scarcity. Between 2019 and 2022, the area of Kapoeta east has been affected by drought. Water points have dried up. Cattle have died because of lack of water and pasture.”

Participants also pointed to the presence of two **invasive weed species** which they feel are making them more vulnerable to the impacts of a changing climate. *Prosopis Juliflora*, known locally as Beku, has been encroaching into Kapoeta from Northwest Kenya since the 1970s, possibly facilitated by increasing aridity because of the changing climate. Several participants reported that Beku’s deep roots and water intensive nature is exacerbating the impact of drought on their communities. Participants also reported the presence of *Parthenium*, known locally as *Abonglogir*,¹⁸ an invasive weed species originally from South America, which they suggested may have been introduced to Kapoeta alongside seeds provided by aid agencies. *Parthenium* is a hardy weed that can rapidly colonise farming fields and destroy crops, further exacerbating the impact of drought on vulnerable communities. Some participants also complained of allergies caused by *Parthenium*, a claim that is backed up by some botanical evidence.¹⁹

Several people reported that changing climatic conditions were influencing **wildlife movements**, bringing with them health and social challenges. A group of elders in Kapoeta East, for example, reported an increase in the number of elephants and other wildlife crossing into the country from Uganda, possibly in search of water and food. They linked this to the arrival of Tsetse flies. In some instances, this has allegedly resulted in the infection and death of livestock. The impacts were said to have been so severe that the inhabitants of Nyengiya village were forced to relocate. This group of elders noted that there has been no effort to eradicate the Tsetse flies from the region or to protect livestock, stocking fears that the disease may spread further.

The impacts of climate change in Kapoeta are **highly gendered**. Participants noted that strict gender norms dictate that women are responsible for providing food for the family, normally by growing crops, and by buying or searching for food if crops fail. They are also responsible for fetching water and firewood, cooking, cleaning, and looking after children and the elderly and even thatching houses. Conceptions of masculinity, meanwhile are deeply wrapped up in a man’s ability to tend cattle, grow the herd and ensure security for their family and community. Increased water scarcity, therefore, has a disproportionate impact on women, who often find themselves having to travel further to find water, work harder to provide food and care for frail children or parents who may be weakened by food insecurity or high temperatures. Men meanwhile are likely to spend longer periods away from home in search of water and pasturelands, leaving women alone and exposed to further vulnerabilities.

Interview with a government official from Kapoeta North

“The most water users are women for households, washing, cooking, drinking. It is the women who bring the water, and they walk distance to get it. Some boreholes have dried, and women must move a distance to fetch water. For us men we come home, and we ask where is water? We tell them wash these clothes.”

Links between climate change and conflict: community perceptions

Participants pointed to several ways in which they believe that the impacts of climate change are interacting with existing vulnerabilities to exacerbate tensions, and in some instances increase the risk of violence in their communities.

Communities in Kapoeta employ a wide range of measures to **cope with and adapt to the effects of climate change** on their health and livelihoods. This has included some measures that are bringing them into tension with others. Participants described for example how as dry spells have become longer and pasture has become scarcer, so annual cattle **migration patterns have altered**. Pastoralists have responded by migrating further, sometimes encroaching on land considered to be the preserve of other tribal communities and staying longer in locations where water and pasture remain available. For example, participants cited Toposa cattle camps in the areas around the Kidepo valley in Budi County, Moruarangi in Kapoeta East, Boma in GPAA, Nyangatom in Ethiopia, Turkana in Kenya and the Karamojong area of Uganda remaining for longer periods each year.

NGO worker from Kapoeta town, Kapoeta South

“The desert is encroaching north of Kapoeta and from Kenya through Turkana and from Ethiopia. It is forcing the Toposa to move west and this is causing conflict with the Buya west of Kapoeta. The conflict is around issues of grazing and access to water. But before this, the conflict was about raiding to get more cattle for marriage and other aspects.”

Where these areas sit on the border with other pastoralist groups, or where rights to access to pasture are contested, these extended stays have been a significant source of tension. The extended presence of cattle camps (and associated practices such as tree-cutting for charcoal production) is placing **increased stress on natural resources**, many of which respondents believe are already becoming scarcer due to the impact of climate change. Participants reported that this increased competition over resources is exacerbating tensions that are often embedded in much longer histories of conflict and perceived grievances between communities. Buya and Toposa communities for example have a long history of cattle raiding and counterraidering, going back many decades. One Kraal Leader claimed that extended stays of Toposa in Budi County for example almost always resulted in fighting.

Kraal leader from Kapoeta South

“It is inevitable to fight when there is no water. As a leader, I am obligated to ensure my Kraal has access to pasture and water. I must always take the gun on one hand and the peace on the other to ensure we get water wherever we can get. Sometimes we go in large number and well-armed to deter the other groups from preventing us to enter and to prevent raiding.”

A Payam Paramount Chief from Kapoeta North elaborated further, pointing to the lack of access to water as the critical source of tension between Toposa and Buya communities.

Payam Head Chief from Kapoeta North

“Buya fight with us when we go to their areas. The cause of the conflict is lack of water. People can even go by force if they don’t allow us, and this causes violent conflict. When there is water shortage, we call a meeting and we approach the Buya and if they refuse, we say thirst is more painful than hunger and so we move by force. We need some NGOs to dig some haffirs [subsurface water storage] and this will help reduce conflict. We want haffirs in our normal areas of grazing so that even if pasture finishes in one area we can go to another area and find water. Cattle eat the dry pasture so long as there is water.”

Participants reported that competition over access to water and pasture in contested areas is often exacerbated by local politicians who seek to **exploit divisions for personal gain**. Some people noted that certain Toposa politicians have been accused of allegedly encouraging Toposa pastoralists to occupy land rich in minerals, water and pasture, specifically around Ngauro and Camp 15, as a means of laying claim to land rights and potentially allowing for the exploitation of those minerals, water, and pasture. Some politicians from Budi County and Tenet community have also been accused of allegedly inciting their communities to resist Toposa encroachment, citing a July 2022 attack on Kapoeta North by a combined force of Murle, Tenet and Buya as a case in point. A recent study by the Lokichoggio Peace Organisation (LOPEO) describes the ways that some political actors have drawn on inter-ethnic animosities and historical grievances (around cattle raiding and other issues) as a means of consolidating their own support base in the Illemi Triangle.²⁰

It is clear, however, that resource scarcity and altered migratory patterns do not automatically lead to increased tension and conflict. Participants noted that when communities have **prior experience of peaceful co-operation**, extended migratory patterns rarely resulted in conflict. Extended Toposa migration to Nyangatom, for example, appears to be largely peaceful, despite the pressure placed on natural resources. Indeed, resource scarcity can have a paradoxical relationship with conflict, stimulating competition in some instances, but incentivising collaboration in others, as all communities become mutually dependent on the sharing of resources during the dry season.²¹

A local aid worker from Kapoeta North

“Recently there was a migration of Jie to Wakabu Payam (Karkomuge) due to excessive lack of water and food in their areas in Kapoeta East where some people and animals died due to drought. They migrated to Kapoeta North where they were accommodated. We welcomed them because they are our people and we raised alarm to the government to intervene. The government asked humanitarian organisations and an assessment was done. They spent three months here. They came in April, and they have now returned. This is a good example of how peaceful coexistence can lessen climate change impacts.”

Several participants reported that the increased prevalence of droughts and crop failures were leading more people to **sell or slaughter livestock** as a means of buying food on the open market. Participants reported that young men are particularly likely to respond by increasing cattle raiding to restock their depleted herds. This often results in revenge and counterraids, perpetuating cycles of conflict. Others also drew a link between increased rates of food insecurity and increased perception of theft, robberies and other forms of crime.

A local aid worker in Kapoeta East

“People are forced by drought to move away from their original lands, and they clash with other communities. Due to lack of food, they are forced to sell animals to buy food from the towns. When a person sells a cow or a goat, it provides food, and it reduces the conflict at the family level. If the selling reduces the herd the man owns, it forces the man to go and raid and this increases conflict.”

Participants also linked the impacts of climate change to increased risks of **gender-based violence**. Given that women are considered responsible for supplying food for the family, they are more likely to be blamed when crops fail, and many face violence in the home as a result. Furthermore, as water becomes harder to access, some women are forced to travel longer distances, exposing them to further risks including sexual violence. Local aid workers report that some women have resorted to coping mechanisms that can expose them and their families to further harms, such as brewing and selling alcohol, getting into debt and increasing rates of child marriage. A group of women, for example, described their fear of being subject to abusive behaviour by men under the influence of alcohol when brewing and selling it. Women also noted that the risks of being beaten or targeted by the police had increased following a ban on the sale of alcohol in Kapoeta East.

Interview with a local aid worker from Kapoeta East

“95% of the work is done by women. Men only take care of cattle. In this case, it is the women who look for food. When a man comes home and finds no food at home, there is violence. Sometimes you see a man beating a woman because he cannot bear going to bed without food.”

Men are also impacted by violence, being much more likely to engage in cattle raiding or other forms of inter-communal violence. The loss of cattle due to disease, drought or raiding can also have a major impact on the **perceived social standing of young men and boys**, impacting on their ability to marry to attain full ‘adulthood’. This can be a powerful driver of conflict, motivating men and boys to engage in cattle raiding or other forms of organized violence (such as joining militia or armed groups). The inability of young men to live up to social expectations related to providing for and protecting their families and communities has been linked to increased rates of domestic violence across many parts of South Sudan, and beyond.

Community perceptions of aid and conflict sensitivity challenges

Participants identified a range of conflict sensitivity challenges that aid actors face when delivering assistance in Kapoeta. The issue of **perceived unfairness in employment opportunities** for example is a major grievance that many young people have against aid actors. Several young people claimed that almost all of the NGOs in the area recruit almost all their staff from outside the local area, including ‘unskilled’ labour such as cooks, cleaners and security guards. When jobs are advertised, they note that this is typically done online, with recruitment processes managed by head offices in Juba. Young people in Kapoeta however often lack easy access to the internet. Many feel intentionally excluded as a result.

A member of local youth in Narus, Kapoeta East

“We complained yesterday for all organisations who want to operate here to advertise the jobs on the ground here in Narus and Kapoeta instead of doing it online. How do you make peace when you come from Juba and employ someone who even don’t understand the language of this place?”

This is clearly a major source of tension between community members and aid agencies. Participants described an incident in which members of a local youth group in Kapoeta Town wrote a letter to aid organisations in Kapoeta complaining about recruitment processes and threatening them if their grievances were not addressed. Although violence did not erupt, the threat was deemed sufficiently high for the US Embassy in Juba to issue a security alert warning its citizens not to travel to the region.²²

Civil Society Member, Kapoeta Town

“Humanitarian interventions have created jobs, and this has created conflict. So unemployed youth target aid workers. They say dollars are given to humanitarian workers; they rob them. These thefts will reduce if there are opportunities for everyone.”

Access to jobs was not the only grievance aired. Several people also linked **perceived inequality in access to food aid** with increased risk of conflict. They noted that in a context of near universal need, the application of vulnerability-based eligibility criteria can result in those people most likely to engage in violence also being least likely to be able to access support. They reported, for example, that young men who lack an alternative means of accessing food are more likely to engage in raiding, crime or highway robberies targeting commercial and aid vehicles.

A female youth leader from Kapoeta Town

“People scramble for the little food that is being brought and people fight over it among themselves and among the communities sometimes they accuse chiefs. I think the way they organise assistance is causing conflicts because it is not reaching everyone. They only give aid to the vulnerable and old age people (...). Because of this, people steal food in the store and sometimes, people get beaten and sometimes it leads to death.”

These risks are exacerbated by what most participants believe has been an **inadequate level of humanitarian response**. While many acknowledge that NGOs are doing their best with limited resources, most believe that there is simply not enough to reach all needy communities. Agencies subsequently must make difficult decisions about where resources will be prioritised. Some people blame the lack of sufficient resources on donor planning and budgeting decisions. Others cited the Ukrainian War and other global shocks such as COVID-19 as diverting attention from the ongoing emergency in South Sudan.

A local aid worker in Kapoeta East

“There used to be general food distribution, but it is no longer there. It has been stopped (...). This will cause conflict especially cattle raiding, thefts, and highway robberies as these are triggered by hunger and starvation.”

Integrated conflict and climate sensitivity practices

NGOs in Kapoeta recognise that climate change is having a significant impact on the livelihoods and vulnerability of people in the area, including by indirectly contributing to tensions between and within communities. In practice however, the study identified **few examples of aid actors prioritising conflict- or climate-sensitive action** on the ground. Whilst some NGOs have apparently sought to hold dialogues between groups competing for access to pasture in the region, young men in Kapoeta East told us these have not been successful due to a lack of trust between the groups, and a lack of effective third-party monitoring of agreements brokered by the dialogues. Staff from NGOs meanwhile noted that funding and capacity constraints meant that they rarely conduct dedicated conflict analysis. Some agencies also noted that they follow donor guidelines on adopting climate-sensitive action, but do not engage in proactive efforts to mitigate against the effects of climate change within programmes.

Interview with NGO worker in Kapoeta Town

“We follow USAID guidelines on climate change by not cutting trees. But we still don’t have a programme for tree planting. We only do some works on conflict. We are planning to build some haffirs. Our colleagues (...) are providing boreholes and hygiene and sanitation services.”

Some organisations do however have a more explicit focus on adopting climate- and conflict-sensitive action into their programmes. Staff from the United Nations Food and Agriculture Organisation (FAO), for example, described how they have sought to integrate both climate- and conflict-sensitive action into the design of their programme in Kapoeta, recognising the links between the two areas. Catholic Relief Services (CRS) meanwhile described how they are focusing on the impact of climate change as a core component of their peacebuilding programming in the region.

Interview with FAO staff member

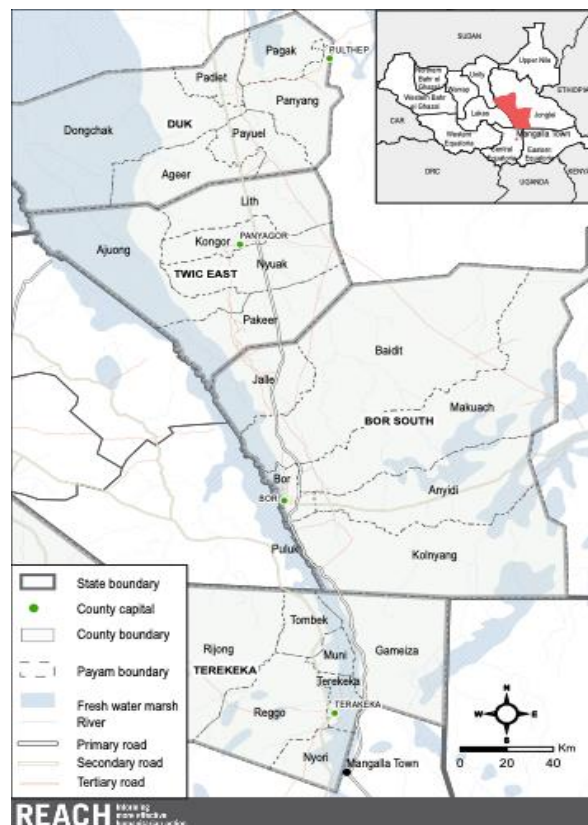
“This is the core area of FAO. We are sensitive to conflict, and we are sensitive to climate change. We follow the do no harm principle. We support communities equally to avoid any sense of marginalisation. We provide a service that can benefit both sides. With climate change, we look for adaptive mechanisms, such as drought-tolerant seed varieties and ones that mature early. We do a kind of rehabilitation of pastures. We set up dry season grazing reserves. This is to have something to fall back. We try to build haffirs and dams and this depends on the availability of resources. We discuss with community to establish a proper understanding of the water use.”

3. Case Study 2: The Mangala-Bor Corridor

Context

The Mangala-Bor corridor runs from Mangala Town, an important regional centre about 70km north of Juba in Central Equatoria State, to Bor Town, the capital of Jonglei State. It is traversed by an approximately 130km section of the Juba-Bor-Malakal Highway, one of the main transport arteries of South Sudan. The case study area encompasses the Special Administration of Mangala Town and three counties, namely Bor, Duk, and Twic East in Jonglei state, that formerly made up Bor District during the British colonial time. Mangala is currently host to about 40,000 flood-displaced persons from Jonglei State, particularly from Bor, Duk, and Twic East Counties.

The area is characterised by multiple conflicts and tensions running along ethnic, social and political lines. Mangala Payam is a disputed territory, with both the Mundari of Terekeka and the Bari of Juba County claiming the town as part of their homeland. This dispute has resulted in several violent clashes, most recently in 2020, leading to the shutdown of schools, health facilities, and other services. To deescalate the situation, the government of Central Equatoria set up a special administration in 2021 to oversee municipal governance. Bor and the surrounding areas have also experienced periods of tension between Dinka, Nuer and Murle communities, as well as periods of collaboration and coalition-building, for many years. These tensions have been exacerbated by broader political divisions in the country. In 1991, a bloody split in the Sudan People’s Liberation Movement/Army (SPLM/A) resulted in the Bor massacre



This map is being used to show the location of the study area. However, CSRF and the authors of this report do not endorse its accuracy.

and displacement of almost the entire population of greater Bor and the looting of thousands of livestock. Many displaced families moved to IDP camps in Western, Central and Eastern Equatoria States, increasing pressure on land, resources and basic services.

The relapse into war in 2013 meanwhile led to further rounds of bloodshed across the Upper Nile Region, including massive displacement from Bor, mainly to Mingkaman and then on to Juba and Kenya and Uganda. Communities living in the Corridor have been subjected to repeated and severe climatic shocks in recent years. Jonglei State suffered from major flooding in the 1960's, -80's, -90's and 2010's. Each wave of flooding has resulted in large-scale displacement, as well as altered seasonal migration patterns for pastoralist communities. In several instances, flooding has coincided with intense periods of political violence. Flooding in Bor in 1991 and 2013, for example, coincided with major splits in the SPLM/A, which led to massive bloodshed and widespread displacement. The floods and conflicts further limited options for pastoralist communities to access pasturelands to the east (to Uror and GPAA), west (around Awerial and Yirol East) or north (Ayod county). Subsequently, many pastoralists were forced to migrate further into the Equatorial region (to the south), exacerbating tensions with local farmers. The last four years has seen some of the worst flooding in South Sudan's history, leading to more than half of the population being displaced. Bor, Duk and Twic East counties, for example, were almost totally submerged between 2019 and 2022, while much of Bor Town was underwater from August 2020 and April 2021.

Perceptions of climate change patterns and trends

Representatives of communities interviewed across the Mangala-Bor Corridor assert that they have clearly seen the effects of climate change on their lives. Participants reported that **average temperatures have increased**, while **rainfall patterns have become more extreme and erratic** in the last two decades.²³ They pointed to increased incidents of drought, as well as harder and less predictable cropping cycles leading to increased risks of food insecurity, as direct consequences of climate change. But the increased **prevalence and severity of flooding** were cited as the most significant manifestation of climate change for almost all participants.

Interview with an elder from IDP camp outside Bor

"I'm the oldest here. The rain used to start in March, and we prepared our grounds in March and planted in April, and we harvested in August. Things started to change. If you plant in April, the birds will destroy the crops but if you plant in May, there is no bird. (...) We tried to farm this year, but flood destroyed them. We have nowhere to go because the flood is still at home in Jalle."

This was most strikingly illustrated in Bor. Participants were clear that seasonal flooding has been a normal and accepted part of life for many years. However, in many places across the state flood waters have not receded back to their normal levels for over four years – an unprecedented amount of time. Participants fear that flood waters may not recede for several years. The impact on local livelihoods has been devastating, resulting in the destruction of crops and infrastructure and causing an increase in water borne diseases. Many **coping strategies previously available to communities are no longer viable**. One participant stated that people used to go to raised ground. But this flood has submerged entire communities across eastern parts of Jalle, Baidit, Twic East and parts of Duk, including areas previously considered safe.

Interview with Bor community leader in Bor

"When we were young, people used to go to Toich around December and January. The cattle were used to these seasonal changes to the extent that the cattle would move on their own to start to come out of Toich or go to Toich depending on the season. The point is that the pattern was expected and predictable, but it is no longer predictable."

While Mangala is less prone to flooding, even here the impact of excessive rainfall has resulted in areas becoming submerged that had not historically been seen as at risk. Participants note that the

islands situated between branches of the Nile (Bahr el Jebel section) have been submerged, with residents (who are mostly Bari) being displaced to Mangala. However, participants in Mangala town cited the risk of drought as a major concern related to climate change, showing that even within a relatively small geographic area, the **impacts of climate change can be disparate**.

Links between climate change and conflict: community perceptions

The relationship between climate change and conflict across the Mangala-Bor Corridor is complex. Participants reported multiple incidents in which conflict and **insecurity has made it harder for them to adapt** to the impacts of climatic shocks, increasing their vulnerability and forcing them into adopting new and sometimes risky coping strategies. But they also report that climatic issues are themselves important factors driving conflict, often along ethnic and political lines.

Interview with Community Leader in Bor Town

“Floods and droughts are happening alternatively and sometimes concurrently. These are interacting with existing conflicts mixed with availability of small arms. Everyone is struggling for what to eat due to environmental changes. Drought and floods are displacing, and conflicts are also displacing people.”

Participants were unanimous in the view that conflict and insecurity are **exacerbating the impact of climate change**, increasing vulnerability and making it harder to adopt sustainable coping strategies. Participants who had been displaced from Baidit Payam, Bor South County, Jonglei State for example described how they were unable to return home, despite flood waters having receded, because of fears of inter-communal violence. Others reported that insecurity had cut off a range of previously viable adaptation strategies, for example forcing a change in migratory routes used by pastoralist communities. Participants from Baidit, Jalle and Twic East described how they used to migrate to southern parts of Bor, or to the east of Bor, Duk, and Twic East during periods of flooding. Access to these areas, however, has now been cut off by insecurity. While many have responded by moving to Bor Town, where they generally report feeling welcomed, here they lack access to cultivable land making them reliant on support from kinship networks as well as humanitarian assistance.

Chief of Mathiang Boma at Bor Stadium IDP Camp

“[The] number one thing that displaced us is flood[ing]. It destroyed everything: cow, goat, crop, food, shelter, and other non-food items. What keeps us here is conflict. (...) Our place is dry now, but we cannot go back because of the conflict.”

In Mangala, participants reported that the arrival of IDPs displaced by flooding in Jonglei State was worsening tensions in the town. One participant cited **increased pressure on arable land**, already under strain because of flooding in the islands around the town, leading to increased levels of food insecurity and hunger. Others draw a direct link between climate change, floods, the arrival of IDPs and increased tensions in the community. Several others meanwhile reported that the arrival of large numbers of IDPs during an ongoing dispute between Bari and Mundari over control of Mangala municipal authority had made the situation worse. One Bari respondent in Mangala, for example, noted that infighting within the community had allowed for “land grabbing to increase without intervention from any authority”²⁴.

A host community member in Mangala

“The root cause of the conflict here is climate change. The second is the cattle. Farmers and pastoralist cannot exist together because cattle can destroy crops. If we are all South Sudanese, we are supposed to live and respect each other. We are supposed to share. IDPs are not respecting the host community.”

Participants across the Corridor reported that the effects of climate change are having particularly acute effects on conflict between **Bor Dinka pastoralists and Equatorian farmers**. In Bor, participants

reported that traditional dry season pasture for Dinka pastoralists in the Sudd wetlands have remained submerged throughout the dry season. Meanwhile, insecurity has cut off access to many pastures to the east of Bor, Duk, and Twic East counties normally accessed during the wet season. This has forced many Dinka pastoralists from these areas to set up cattle camps further south than normal, in some cases as far as Juba and beyond. Several people noted that this reflects historical patterns, in which severe flooding in the 1960's resulted in Dinka families from the former Bor District settling in Mangala, while cattle were reared further to the south. In each case, this increased tensions between farmers and pastoralists, in some instances culminating in violent clashes.

Equatorial farmers and Dinka pastoralists seem to have **distinct narratives around the changing migration patterns**. Dinka participants reported that these climatic and security factors were forcing them to adapt their livelihood patterns, acknowledging that this can bring them into conflict with farmers. Equatorial farmers on the other hand emphasised their belief that pastoralists intentionally drive their cattle into their farms with the aim of destroying their crops and occupying their land. They reported a common belief that cattle keepers found the place to be more favourable to keep cattle with abundant pastures, less mosquitoes, less muddy wet season and fewer cattle diseases, resulting in cows calving almost every year. Political factors are also highly pertinent, with many farmers claiming that the (Dinka dominated) government is more sympathetic to the demand of the pastoralists.

One thing that both pastoralist and farmer communities agreed on was that **neither aid organisations nor the government have paid sufficient attention to addressing this issue**. Cattle camps and farmers were surprised when we visited them during this study, reporting that this is the first time a team from either the NGO sector or government has spoken to them about these issues. Participants from one cattle camp reported that when clashes occurred in Magwi this year, neither the government nor aid actors offered any kind of response, noting that both sides had to rescue their own wounded people.

Perceptions of aid and conflict sensitivity challenges

Many participants highlighted brewing **tensions between IDP and host communities** in Mangala. They noted that aid response risks exacerbating tensions if distributions were seen to disproportionately benefit one over the other. Most participants from host communities for example believe that IDP presence in their communities will be protracted, with some clearly of the view that IDPs will stay out of choice rather than necessity. They cited the building of permanent structures like shops, lodges, houses, and churches by the IDPs as evidence of their intention to remain permanently. Some host community participants also accused arrivals of land grabbing by settling in areas beyond those originally demarcated for them by the community. The use of farmland seems to be particularly sensitive, given that many in the host communities are already complaining of food insecurity.

Participants from the IDP camps meanwhile highlighted what they see as **inadequate and poorly targeted response** by aid actors as a source of tension. Several blamed this on the politicisation of their displacement, claiming that aid agencies offered only limited and short-lived support to avoid accusations of incentivising them to stay from any longer than necessary. They claimed that one agency had paused distributions of essential support because of concerns that unequal access for IDPs and host communities would lead to conflict. While the agency sought assurances from both sides that resumption of distributions would not result in tensions, IDPs continue to feel aggrieved by the delays.

A youth leader in Mangala IDP camp

“Some NGOs have not applied the do no harm principle. They came here and they did not engage with host communities, and when they tried to bring food to IDPs, the host communities said if we are not part of the food distribution, we will fight. So, the agencies stopped distributing food to avoid fighting.”

Tensions between host and IDP communities in Mangala Town have been further complicated by the establishment of **competing governance arrangements**. Participants reported that the Government of Jonglei State appointed a Relief and Rehabilitation Coordinator (RRC) for flood IDPs in Mangala, despite the town sitting in Central Equatoria State. According to participants, the Government of Central Equatoria then cancelled this appointment and instead appointed their own RRC. However, the Jonglei State appointed RRC continues to operate, with an office in Mangala IDP camp, while the Central Equatorial RRC Coordinator works from Mangala Town. This is a potential trigger for conflict and has serious implications for effective delivery of aid to flood IDPs and host communities.

Mechanisms do, however, exist to support collaborate engagement across ethnic divisions. A coordination group that includes leaders from the various communities, for example, has previously been able to facilitate agreement on the temporary allocation of land for IDPs, suggesting that they have a certain capacity for collective decision-making. Humanitarian organisations could help to reinforce such structures and relationships by including them in decision-making around the humanitarian response.²⁵

Integrated conflict and climate sensitivity practices

Agencies in Mangala and Bor are aware of many of the conflict sensitivity risks associated with their work. Staff furthermore recognised the links between climate and conflict. **Few however seem to have capacities or expertise in place** aimed at supporting the adoption of integrated conflict- and climate-sensitive practices. Most participants from aid organisations, for example, felt that efforts to address inter-communal tensions fall outside of their institutional remit, while many fear that any effort to address such issues without specialised capacity risks exacerbating issues.

Some national organisations, however, have facilitated dialogue between displaced and the host communities with the aim of reducing tensions. Peace Canal, a national NGO that works in Bor Town is one such organisation working on peacebuilding. Its representative described its peacebuilding practices (see box below).

Peace Canal representative in Bor Town

“Peace Canal is (...) engaged in promoting social cohesion through dialogues. Dialogues have been held between IDPs and host communities in Duk, Twic and Bor South counties and with GPAA communities. The political elites and community associations have also been consulted and involved in this process. Peace Canal has established peace committees that include youth, women and traditional authorities under the leadership of Payam at the county level. The community structures have been engaged in exchange visits with the aim of enhancing peaceful coexistence.”

4. Consolidated Analysis and Implications

Climate change is having **very real and significant consequences for people** living in different parts of South Sudan. In both case study locations, older people described how the climate has changed over the last 20 years (and in some cases over a much longer period). They reported experiencing increased average temperatures and more erratic rain fall patterns, leading to increased frequency and severity of both flooding and drought, alongside less productive soils. Therefore, communities reported that more people are being displaced from their homes because of environmental hazards, and for a longer period, than at any previous time in their lifetimes. They also reported that many livelihood strategies have been undermined, with increased risk of crop failure, higher rates of human and animal disease and pastures becoming harder to access for many.

The impacts are, however, **not evenly spread**. According to the field research, communities that are already displaced or reliant on aid, especially women and other marginalised groups, are among the most vulnerable to the effects of climate change. Those with access to more diversified livelihood

strategies, such as regular employment or active engagement in the market economy, or with access to powerful political patronage networks, are least likely to be adversely impacted. It is clear, however, that changes linked to climate change are becoming the new normal, which requires significant adaptation and mainstreaming of climate sensitivity and mitigation into policies and aid programming, with a strong focus on conflict (and gender) sensitivity.

The case studies suggest that changes in the climate are **exacerbating tensions and triggering conflicts between certain groups**, and in some instances making violent conflict more likely. Participants from both locations described increasing tensions as Toposa and Bor, Twic East and Duk Dinka pastoralists have altered their annual migratory patterns due to flooding or drought. As suitable pasture in and around Kapoeta and Bor, Twic East and Duk has become scarcer, so these pastoralists have moved further into land populated by neighbouring tribes with whom they have historical grievances, and often leading to increased competition over access to land. For Toposa of Kapoeta, this includes Didinga and Buya while for Bor, Twic East and Duk Dinka this has meant extended stays in areas populated by Bari, Mundari, Acholi, Madi, and Kuku. Participants also cited tensions between flood and drought displaced people and host communities related to displacement across both case study locations.

Many of these communities also described **how insecurity and conflict were inhibiting their ability to effectively adapt** to the effects of climate change. Pastoralists in Bor and Kapoeta, for example, described how insecurity had cut off access to areas that they would normally expect to migrate to during periods of flood or drought, forcing them to travel further into land that they know will be hostile. Likewise, flood displaced communities in Bor Municipality and Mangala are reluctant to return to their lands, despite waters receding due to insecurity. In both cases, conflicts are preventing communities from adopting safe coping strategies, forcing them into situations in which intercommunal tensions are likely to escalate while also undermining their ability to adapt to the changing climate.

It is, however, important to **avoid simplistic associations between climate change and conflict** in South Sudan. While in some instances, climate change does appear to be contributing to the likelihood of tensions by placing additional stress on already fragile livelihood strategies, the effects on conflict cannot be understood in isolation from broader social, political, economic and gender dynamics.

Communities in Kapoeta, for example, reported increased incidents of cattle raiding and associated conflicts with extended dry periods, as pastoralist communities engage in raiding to restock herds depleted by drought. However, cattle raiding is driven by a **complex range of factors** linked to the fact that social standing and prestige are often closely associated with the size of a person's herd.²⁶ Young men, for example, may feel compelled to engage in raiding to access sufficient wealth to get married, as well as (in some communities) raiding being seen as a 'rite of passage'²⁷. Economic and political pressures can limit alternative means of generating wealth. International demand for meat meanwhile has created incentives for large scale raiding, with cattle sold directly into regional meat markets.²⁸ Increasing violence associated with raids is also driven by complex social factors, including ease of access to weapons, eroded authority structures and psychosocial trauma. The effects of climate change can be understood as a contributory or exacerbating factor, but raiding existed before recent changes in the climate, and would likely continue without them.

It is also clear that the impacts of climate change and their links with conflict are **highly gendered**. Women in both locations appear to be disproportionately affected by increased scarcity of potable water and crop failure on account of their roles as the primary providers of food and water, as well as carers of children and older people.²⁹ Generally, lower levels of literacy and social standing mean that women often have fewer alternative livelihood options than men when displaced from their communities.³⁰ In some instances, this is forcing them to engage in risky activities, such as travelling further to access water, child marriage, brewing and selling of alcohol, or prostitution. As well as placing women at particular risk of violence and exploitation, these factors may also be exacerbating

gender-related drivers of conflict. A perceived inability to protect women can for example challenge important masculine norms related to community protection.

Evidence from the case studies also demonstrates that the effects of, and community responses to, **climate change do not automatically lead to conflict**. Participants in Kapoeta, Mangala and Bor all noted that in contexts where communities had pre-existed social or familial ties and a history of 'cordial social relations', changed migration patterns or extended periods of displacement rarely resulted in tensions or conflict. They pointed to internal migration within Kapoeta and movements between Jalle, Baidit, Twic, Duk and Bor Town as cases in point. In Bor, these were contrasted with tensions resulting from displacements to Mangala Town, where historic tensions between Bari and some Dinka communities have been exacerbated by displacement patterns. Even where communities have a history of conflict and tension, there are examples of community-led dialogue process, including some that have been supported by international agencies, that have met some success in facilitating shared access to land and resources for pastoralist communities (see box 1 below).

Box 1: Inter-communal dialogue processes in Northern Bahr El Gazal

The United Nations Mission in South Sudan (UNMISS) has supported a dialogue process between Malual Dinka and Misseriya over pastures in Northern Bahr El-Gazal in previous years. Before the dry season, both parties convene a pre-migration negotiation where ground rules are agreed and signed, and implementation mechanisms are put in place to monitor and enforce the rules. Both sides have established Joint Border Peace Committees whose role is to investigate and put on trial those who break the rules. Punishment for killing include a blood compensation where several heads of cattle are given to the deceased family and a punishment to the killer of the deceased. In addition, children, women and cattle stolen are returned. Both sides also formed a Joint Commerce Committee to promote trade among the communities. While this has led to considerable reduction in the incidents of fighting between the communities, some incidents of attacks have happened occasionally, showing that such mechanisms need constant reinvigoration and efforts to maintain over the medium to long term.

Previous research focused on land tenure and climate change adaptation has highlighted that these strong ties are more likely to exist when there is an **expectation of social reciprocity** between communities.³¹ Specifically, when communities can recognise mutual benefit associated with close interaction and collaboration with each other, then they are much more likely to develop mechanisms that allow for the negotiated sharing of resources and peaceful resolution of disputes. This has implications for conflict-sensitive aid. Social reciprocity can be cultivated, for example, by providing services that mutually benefit all communities in an area, while an understanding of existing social relations (and historical grievances) should be an important consideration when identifying camp locations for displaced communities.

Finally, aid actors face a range of **significant and tricky conflict sensitivity challenges** in their work in both case study locations. Community members across Kapoeta, Mangala and Bor all complained about perceived inequality in terms of access to jobs and aid. In Kapoeta, youth are particularly disgruntled about the perceived unfairness of jobs with aid agencies being provided to people from outside of the area. Similar grievances were aired in Bor and have been echoed in analysis carried out elsewhere in the country (including Maban, Torit, Jamjang, and several other places).³² Disputes in Mangala meanwhile, where aid agencies are accused of encouraging the permanent resettlement of IDPs on to land not allocated to them, risks sparking conflict if not addressed rapidly. Efforts to address these issues, or to respond to perceptions with clearer information and communication, however, do not (so far) appear to have been successful.³³

There has also been an insufficiently strong focus on integrating conflict-sensitive approaches into responding to the needs of communities affected by climate change. The decision to resettle flood displaced people in a location with existing conflict between the displaced and host communities, for

example, is a clear conflict sensitivity challenge. Even where the conflict sensitivity challenges are not specifically related to climate change, the patterns highlighted in this paper are alarming. The impact of climate change on community resilience, already intense, is **only likely to escalate over the coming years**. Subsequently, needs will almost certainly increase and the challenges that aid agencies face will become more complex. Given global pressures on international humanitarian budgets, increased need is unlikely to be met by consummate resources, meaning aid actors will need to make more, and harder decisions about where and who to prioritise. Without a significant shift in the way that aid is conceptualised in South Sudan, including a much greater commitment to conflict sensitivity, the challenges that agencies face will become more acute and much harder to resolve.

5. Conclusions and Recommendations

In this report, we have focused on two case study locations to explore community perceptions of climate change patterns and trends, including its differentiated impacts on women/girls and men/boys, perceptions of how climate and conflict interact, perceptions of aid and conflict sensitivity considerations, and the extent to which the aid sector in South Sudan has been integrating climate and conflict sensitivity strategies into their interventions in these locations. We also offer consolidated analysis of these areas, including considerations for ensuring that aid interventions are both conflict- and climate-sensitive. Several specific challenges and opportunities have been identified which present a range of implications for aid actors working in the two case study locations, and potentially across the rest of the country.

Communities in the study locations have in the last two decades been experiencing unusual increases in temperatures, frequent and severe flooding, prolonged drought, erratic rainfall and changes in the seasonal climatic patterns more than any time before. These changes are impacting on the livelihood options available to many people, and have contributed to changes in pastoralist migration patterns, which in turn have exacerbated tensions between communities. These tensions reflect historical and pre-existing grievances, and in some instances appear to have contributed to increased risks and incidents of violence. Among the demographic groups women stand out as the most affected as impacts on water, energy resources, and crops, among others, expose them the most to the effects of climate change. While aid actors are aware of climate and conflict sensitivity and have tried to follow related principles and standards, several constraints, including lack of adequate funding due to global shocks like COVID-19 and the war in Ukraine, among others, have been cited as constraining the full integration of climate and conflict sensitivity into aid programming.

In responses to some of these findings, we make the following specific recommendations for international aid practitioners and relevant policy-makers in South Sudan:

International Donors and UN agencies at the national level should:

- Review the South Sudan National Action Plan (NAP), adopted in November 2021, from a conflict sensitivity perspective, and consider whether and how implementation contributes to social cohesion and conflict prevention. This may include:
 - Supporting capacity of relevant line ministries, such as the Ministry of Environment and Forestry, to co-ordinate climate change responses, ensure equitable distribution of benefits and ensure community participation.
 - Promoting and supporting civil society oversight of NAP implementation plans and strategies, including mapping of interventions reaching communities to ensure equitable and inclusive allocation of resources across conflict lines.
 - Ensuring programmes included under the NAP adopt conflict-sensitive practices, including regular conflict analysis, identification of potential unintended impacts and ensuring monitoring data is effectively captured and differentiated by gender, social group, geography and other vulnerability criteria.

International Donors and UN agencies with operations in Kapoeta and/or Mangala-Bor should:

- Ensure that durable solutions to displacement crises recognise and address both the push and pull factors related to climate and conflict dynamics that drive displacement, and avoid exacerbating tensions between displaced and host communities, for example, by:
 - Conducting nuanced political economy and conflict-sensitivity assessments of the areas of potential return to understand the risks. This should include consideration of how site selection may impact upon political and strategic objectives of powerful decision-makers, including conflict actors.
 - Supporting conflict sensitive approaches to the identification and development of potential areas for settlements, including assessing areas of potential resettlement or return e.g. for livelihood opportunities to help mitigate social tensions.
 - Ensuring sufficient resources are directed towards peacebuilding initiatives aimed at Dinka, Nuer and Murle communities in and around the Mangala-Bor corridor. These require a collective effort from both the government and aid agencies.
 - Contribute to ensuring safe, dignified, informed and voluntary returns of displaced communities who voluntarily and freely choose to return to places of origin.
- Work with local government and community groups to identify or support transhumance corridors, designate seasonal migratory routes and establish or support locally accepted mechanisms to negotiate shared access to scarce resources for pastoralist and farmers and host communities, for example, by:
 - Working with local government agencies in Kapoeta and Budi counties to identify such corridors and routes for migration during drought time and to manage relations between the groups during their stay. In Mangala and Bor, this should focus on ensuring migration is peaceful during displacement due to extreme flooding.
 - Given that governance in Mangala is highly contested, it is critical to ensure that a conflict-sensitive approach is applied when engaging with local authorities. Agencies should not be seen to be favouring the Bari, Mundari or Dinka, but should speak to representatives from all the groups. A coordination group that includes leaders from the various communities already exists on the ground in Mangala, which has previously been able to agree on the temporary allocation of land for IDPs. Humanitarian organisations could help to reinforce such structures and relationships by including them in decision-making around the humanitarian response.
- Ensure that learning from previous examples of successful climate adaptation and conflict resolution mechanisms employed by communities across South Sudan is captured and disseminated across the aid community in the country.

International Donors, UN agencies and INGOs with operations in Kapoeta and/or Mangala-Bor should:

- Identify and support mechanisms used to build dialogue and facilitate shared access to scarce resources across communities. Agencies should avoid creating or imposing new mechanisms where existing systems may be in place, and which may enjoy greater legitimacy than anything introduced from outside. This might include:
 - Supporting mechanisms used to facilitate dialogue between farmer and pastoral communities over access to land and water in Central Equatoria.
 - Supporting locally-led dialogue processes between the Bor-Duk-Twic IDPs and host communities in Mangala aimed at providing spaces for communities to air grievances, build understanding and reach mutually acceptable solutions to common challenges.
- Ensure the design and implementation of flood management and drought alleviation systems are informed by broad-based community consultations, including with people from across social and ethnic divisions, for example by:
 - Including impartial, gendered conflict analysis in the design of new climate change adaptation programmes, while ensuring that implementation is informed by conflict

sensitivity, good practice and principles. All programmes should be informed by a nuanced understanding of local land use and ownership practices in addition to often different but overlapping usufruct rights.

- Ensuring that construction of dykes and other types of flood management infrastructure in Jonglei accounts for the potential impact on migration routes and practices. Improved flood management practices may help to reduce tensions between Bor-Duk-Twic groups migrating into Equatoria yet may have unintended impacts, for example cutting off communities from other pasture lands or impeding access to core services.
- Supporting the construction of new boreholes, dams and water reservoirs (or *haffirs*) in Greater Kapoeta, needed for both humans and animals to support improved water and pasture management and mitigate conflict between Toposa and neighbouring communities. Conflict management systems should be integrated into access WASH projects, including boreholes, *haffirs*, and dams, for example drawing upon USAID WASH and Conflict Toolkit.³⁴
- Making sure that flood and drought disaster warning systems disseminate information to communities likely to be both directly and indirectly impacted by climatic shocks. This can be important for helping communities (and aid agencies) plan for changes in migration patterns, including stepping up conflict mitigation plans in necessary.
- The risks of early warning and early response (EWER) systems should also be considered. Such systems may be used conflict insensitively by communities to deter others from migrating through their lands, or to encourage pre-emptive attack. It is essential, therefore, that early-warning mechanisms are paired with capacities to adopt early action that aims to support collaborative and peaceful sharing of resources and inter-communal dialogue.
- Support climate-smart agriculture and irrigation systems as part of building resilience and reducing climate stresses and shocks. This should include seasonal information about rainfall, temperature, and potential disasters like flood and droughts, to inform communities on when and what to plant, where to take the livestock, etc.
- Provide support for women and girls to build resilience to both climatic and conflict -related shocks, for example by:
 - Ensuring that gendered drivers of conflict are identified, and the potential impact of interventions on these is included in intervention logic and design processes.
 - Providing capacity development and diversification of income for women, so that they are less reliant on farming, which is particularly vulnerable to droughts and floods.
 - Support small-scale irrigation for vegetable gardens, tailoring, retail shops, land tenure and property support, literacy classes, entrepreneurship trainings, and restaurants and other contextually acceptable income generating means. This can go a long way in strengthening women's resilience to drought and flood.

INGOs, and other operational aid agencies working in Kapoeta and Mangala-Bor should:

- Acknowledge and take action to address grievances over access to employment held by many young women and men in Kapoeta, Bor and Mangala, in order to prevent them from engaging in conflict due to climate risks, for example, by:
 - Stepping up effort to ensure that hiring processes are transparent and accountable by advertising positions locally, publicising selection criteria for all positions and including a diverse hiring panel that represents the diverse interests of communities.
 - Maximising opportunities for local youth to access jobs, by recruiting locally whenever possible, and committing resources to support skills development and

training (in both technical skills tailored to work in the aid sector as well as highly transferable skills) for local people.

- Ensure that eligibility criteria used to identify and prioritise recipients of aid enjoy broad-based community buy-in, so as to prevent young men and women from engaging in climate-induced conflicts, including:
 - Ensuring perceptions of unequal or biased access to aid are understood, acknowledged and addressed transparently.
 - Investing in building consensus about eligibility criteria, by consulting all groups and communicating clearly about why and how criteria have been agreed.
 - Where assistance is inadequate, exploring opportunities to link groups that will not be covered with other agencies or programmes.

¹ As there are many different spellings of Mangala (i.e., Mangalla, Mongala, Mongalla), CSRF have chosen this spelling of Mangala in-line with their other publications, such as the CSRF (2018), '[Terekaka County Profile](#)'.

² Funk C, Eilerts G, Verdin J, Rowland J, Marshall M (2011), 'A climate trend analysis of Sudan.', July (<https://pubs.usgs.gov/fs/2011/3072>)

³ National Bureau of Statistics (2012), 'National Baseline Household Survey 2009: Report for South Sudan', July (<https://reliefweb.int/report/south-sudan-republic/national-baseline-household-survey-2009-report-south-sudan>)

⁴ Von Uexkull N (2014), 'Sustained drought, vulnerability and civil conflict in Sub-Saharan Africa' *Political Geography* **43**, pp. 16–26.

⁵ Detges A (2016), 'Local conditions of drought-related violence in sub-Saharan Africa: The role of road and water infrastructures.' *Journal of Peace Research* **53**(3).

⁶ Raleigh C, Kniveton D (2012), 'Come rain or shine: An analysis of conflict and climate variability in East Africa.' *Journal of Peace Research* **49**(1).

⁷ Saferworld (2011), 'Conflict sensitive approaches to local climate change adaptation in Nepal.', May (<https://www.saferworld.org.uk/resources/publications/700-conflict-sensitive-approaches-to-local-climate-change-adaptation-in-nepal>)

⁸ Gilmore E A, Buhaug H (2021), 'Climate mitigation policies and the potential pathways to conflict: Outlining a research agenda.' *WIREs Climate Change* **12**(5).

⁹ The research was specifically conducted in Kapoeta South (Kapoeta), Kapoeta North (Rwotho) and Kapoeta East (Narus) Counties as well as Mangala and Bor towns and IDPs camps.

¹⁰ After the review of ACLED data, it was found out that there was inconsistency about the conflict incidents. ACLED relies on media reporting to record the conflict incidents and so remote regions like Kapoeta were found to be highly underreported. For example, some of the events the participants told us during the interviews and FGDs did not appear in the ACLED data because they were not reported by the media and so ACLED project was not able to capture them. So, the ACLED data and climate events data were eventually not included in the final analysis.

¹¹ Kapoeta was selected as a case study area because it is an area affected by a prolonged drought, while communities in the Mangala-Bor Corridor have suffered from major flooding over the last four years.

¹² Reach Initiative (2022), 'Greater Kapoeta Climate Impact & Displacement Profile, Eastern Equatoria State, South Sudan.', March (<https://reliefweb.int/report/south-sudan/greater-kapoeta-climate-impact-displacement-profile-eastern-equatoria-state-south-sudan-march-2022>)

¹³ Limo I, Anyanga D, Napwanya T (2020), 'Greater Kapoeta Conflict and Gender Assessment.', July (<https://erc.undp.org/evaluation/managementresponses/keyaction/documents/download/6527>)

¹⁴ Enough Project (2020), 'The Criminalization of South Sudan's Gold Sector: Kleptocratic Networks and the Gold Trade in Kapoeta.', April (<https://enoughproject.org/reports/criminalization-south-sudans-gold-sector>)

¹⁵ Interviews were conducted in Rwotho in Kapoeta North; Narus in Kapoeta East; and Kapoeta Town in Kapoeta South.

¹⁶ Reach op. cit.

¹⁷ Ibid.

¹⁸ Abong means chase while Logir is the name of a Toposa clan. So, the respondents said this weed invaded people of Logir, forcing them to migrate. Thus, the name Abonglogir.

¹⁹ Matzrafi M, Raz H, Rubin B, Yaacoby T, and Eizenberg H (2021), 'Distribution and Biology of the Invasive Weed *Parthenium hysterophorus* L in Israel.' *Frontiers in Agronomy* **3**.

²⁰ Lokichoggio Peace Organization (LOPEO) (2021), 'Cross Border Peace Initiative', cited in PAX (2022), 'The Illemi Triangle: Understanding a pastoralist border area.', February (<https://paxforpeace.nl/news/overview/the-ilemi-triangle-understanding-a-pastoralist-border-area>)

²¹ PAX (2022), 'The Illemi Triangle: Understanding a pastoralist border area.' February (<https://paxforpeace.nl/news/the-ilemi-triangle-understanding-a-pastoralist-border-area/>)

²² US Embassy in Juba (2021), 'Security Alert', July (<https://ss.usembassy.gov/security-alert-u-s-embassy-juba-south-sudan-april-20-2021/>)

²³ This view is consistent with wider climatic tracking data. E.g., see Galligan B P (2022), 'War, Drought, Flood: The many challenges facing South Sudan', *Commonweal Magazine*, July (<https://www.commonwealmagazine.org/war-drought-flood>)

²⁴ CSRF focus group discussion, Mangala, 26 October 2022.

²⁵ Deng D, and Conflict Sensitivity Resource Facility (CSRF) (2022), 'Conflict sensitivity analysis: considerations for the humanitarian response in Mangala.', CSRF, July (<https://www.csrf-southsudan.org/repository/conflict-sensitivity-analysis-considerations-for-the-humanitarian-response-in-mangalla/>)

²⁶ See Schilling et al. (2012), who show that those engaged in cattle do so to restock herds, which basically parallels views from KIs and FGDs in this study, Schilling et al. (2012), '[Raiding pastoral livelihoods: motives and effects of violent conflict in north-western Kenya.](#)', *Pastoralism: Research, Policy and Practice* 2(25).

²⁷ Saferworld (2014), 'Masculinities, conflict and Peacebuilding: perspectives on men through a gender lens.', July (<https://www.saferworld.org.uk/resources/publications/862-masculinities-conflict-and-peacebuilding-perspectives-on-men-through-a-gender-lens>); International Organization for Migration (IOM) (2021), 'Addressing harmful masculinities driving cattle-related violence.', July (<https://publications.iom.int/system/files/pdf/A-Boy-Should-be-a-Fighter.pdf>)

²⁸ PAX, op. cit.

²⁹ See Mai N H, Jok J M, Tiitmamer N (2018), 'Climate change and gender in South Sudan.', The Sudd Institute, July (https://www.suddinstitute.org/assets/Publications/5b76af4421f52_ClimateChangeAndGenderInSouthSudan_Full.pdf)

³⁰ Also see Edward J K (2014), 'A Strategy for Achieving Gender Equality in South Sudan.', The Sudd Institute, July (<https://suddinstitute.org/publications/show/a-strategy-for-achieving-gender-equality-in-south-sudan/>)

³¹ See Tiitmamer N, Mayai A T, Mai N H (2017), 'Land Tenure in South Sudan: Does it promote climate change resilience.', The Sudd Institute, July (https://www.suddinstitute.org/assets/Publications/58b66aacb8b3b_LandTenureInSouthSudanDoesitPromote_Full.pdf)

³² Conflict Sensitivity Resource Facility CSRF (2021), 'Conflict sensitivity analysis: UNMISS Protection of Civilian (PoC) sites: Bentiu, Unity State and Malakal, Upper Nile State.', July (<https://www.csrf-southsudan.org/repository/conflict-sensitivity-analysis-united-nations-mission-in-south-sudan-unmiss-protection-of-civilian-poc-sites-transition-bentiu-unity-state-and-malakal-upper-nile-state-2/>)

³³ While a conflict sensitivity analysis on Mangala Town was done in 2020 for example, it appears that aid agencies have not implemented the recommendations. Deng D , and Conflict Sensitivity Resource Facility (CSRF) (2020) op. cit.

³⁴ USAID (2022), 'Water and Conflict: A Toolkit for Programming.', July (<https://www.globalwaters.org/resources/assets/water-and-conflict-toolkit-programming-0>)