



ADAPTING TO INSTABILITY

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Table of Contents

Executive Summary	4
Introduction	5
Methodology	7
1. Background	8
1.1 Key timeline of Conflict-climate events	9
1.2 Climate change context.....	10
1.3 Conflict context	12
2. Relationship between conflict and climate change	14
2.1 Climate change accelerating instability and creating new vulnerabilities.....	16
3. Intercommunal conflict in north and central Mali	17
3.1 Land-based communal conflicts	19
3.2 Intercommunal water conflicts.....	20
4. Conflict prevention and adaptation	21
4.1 Diversification of livelihoods and adaptation.....	22
4.2 Migration as an adaptation strategy	23
4.3 Climate change adaptation in conflict settings.....	24
Conclusion	25
Recommendations	26
To the Mali government:.....	26
To the international community:.....	26
To civil society:.....	26
Bibliography	27

EXECUTIVE SUMMARY

Mali is known for its beautiful deserts, hospitable culture and peaceful social contract between communities. However, today tensions are high and many areas are no longer accessible. This report comes at a time when we have witnessed the effects of Covid-19 throughout the world, and the immense toll that this takes in a country like Mali. As the conflict in Mali escalates, the region and its complicated politics is negatively impacting the country, particularly in northern and central regions. Since 2016, Mali has experienced a downwards spiral. Following the spread of violence to central Mali, thousands have been killed, and thousands more have been forcibly displaced including many women and children. Poverty, marginalisation, limited livelihood opportunities, and political instability are compounded by the worsening impact of climate change.

Climate change has and will continue to exacerbate the country's many issues. The increase in average temperatures, and a variability in rainfall has contributed to water and food insecurity, displacement, and intercommunal conflict. This increased variability in rainfall, leading to longer dry and lean seasons has increased the incidents of intercommunal conflict between ethnic groups such as farmers and herders who compete over natural resources like water and arable land, whilst also trying to defend their assets. Many people have been uprooted from their homes, as the government continues to struggle with stability. As of August 2021, there are nearing 372,266 internally displaced people in Mali, according to the UNHCR. Malians have to deal with the burden of climate change and live through these challenges daily.

Whilst land and water disputes are the main drivers of conflict, there are also a complex web of underlying factors that act as threat multipliers adding to the pre-existing tensions. Access, control, and management over these valuable resources have been divided along ethnic lines, with minority Fulani groups (14% of Malian population) often engaging in pastoralism, and ethnic groups like Dogons, and Bambara groups often engaging in agriculture as a sources of livelihoods. Against this backdrop, the power imbalance, particularly the political and socio-economic exclusion of minority groups fuels tensions and competition

over natural resources. In addition, many centralised policies give priority to agricultural production, which allows for more land and water access for agriculture. This also contributes to unequal access to natural resources between farmers and pastoralists, further fuelling tensions. The lived realities of every story we hear in northern and central Mali are tales of multiple threats all deeply entangled and interwoven. Mali's entangled crises can seem overpowering, but there are many glimmers of hope. With almost all Malians living off the land, we have hopes that farmers and pastoralists will come together to secure their future and the future of their children.



Shahin Ashraf
Head of Global Advocacy
Islamic Relief Worldwide

INTRODUCTION



We started vegetable gardening when Islamic Relief came,” says Sanata, 50, as she tends her plot in a women’s vegetable garden in Komi-Komi village. Set up by Islamic Relief, the garden enables women to earn a living.

Climate-related conflict in the Sahel is increasingly undermining peace and development in the region.

This is having a devastating impact on the most vulnerable section of society who are most at risk of climate disasters. Climate disasters, especially recurrent drought, soil degradation, and extremely irregular rainfall has altered food, water, and arable land availability in the Sahel, particularly in Mali. In addition to resource exploitation, these factors contributed to the increased competition and conflict over natural resources.

Mali is a landlocked country located in the southern part of the Sahara desert. Like its neighbours, the country has struggled with conflict and climate change in recent years. Mali is subject to frequent droughts, often experiencing significant variability in annual rainfall. Mali’s agriculture sector is particularly vulnerable due to regular droughts, locust invasions, floods, along with other challenges which have a significant impact on agricultural production and as well as livestock.

More than 80% of Mali’s population rely on agriculture as a source of income.¹ Most grow crops and raise livestock on small-scale farms. However, drought and flooding are increasingly threatening the livelihoods and food security of both farming and pastoral communities. Regular food crises over the last few decades have pushed more people into poverty, displacement and reduced people’s ability to withstand climate shocks. High competition over arable land and water has created increased tensions between farmers and pastoralists in north and central Mali.

Intercommunal conflict between farmers and pastoralists in north and central Mali

Land and water disputes are the main drivers of intercommunal conflict between farmers and pastoralists in north and central Mali.² Whilst land and water disputes are main the drivers of conflict, there is also a complex web underlying factors that act as threat multipliers adding to the pre-existing tensions thus increasing the risk of conflict. Climate change disasters, particularly the rapid and slow-onset disasters (such as droughts and flooding) contribute to the rapid desertification and destruction of land and water sources which in turn increases competition over arable land and water sources, which are essential to the livelihoods of both farmers and pastoralists.

It is important to note that whilst climate change is a factor, there is no direct causal link between climate change and intercommunal conflict between farmers and pastoralists in north and central Mali. Climate change disasters are threat multipliers in that they interact with other factors such as insecurity and structural inequalities in natural resource division to increase tensions at the communal level, thus increasing the risk for conflict.³ Climate disasters exacerbate pre-existing socio-economic stresses such as loss of arable land and weaken governance institutions, which in turn makes conflict more likely.⁴

Structural inequalities have also increased the exposure of minority pastoralist groups to climate disasters, diminishing their ability to adapt to climate disasters. Given that livelihoods have historically been divided along ethnic lines, with minority Fulani group (14% of Malian population)⁵ often engaging in pastoralism and ethnic groups like Dogons, Bambara often engaging in agriculture as a source of livelihoods. Against this backdrop, the power imbalance, particularly the political and socio-economic exclusion of minority groups fuels tensions and steep competition over natural resources. In addition, centralised policies give priority to agricultural production. This allows for more land and water access for agriculture and contributes to unequal access to natural resources between farmers and pastoralists, further fueling tensions.⁶

The lack of political representation of minority pastoralist groups, along with financial and policy measures that favour agricultural expansion as a path towards development and modernisation are both contributing factors to the intercommunal conflicts between farmers and pastoralists.⁷ All of these factors have produced a cycle of conflict, that has allowed armed groups to thrive. The presence of non-state armed groups and ethnic militia groups also presents a significant security risk for women with increased reports of sexual and gender-based violence.

"We feel in danger since there are inter-community conflicts everywhere and the bandits also roam freely in the bush with their weapons", says a female pastoralist from a host community in Douentza.

The weak security presence has failed to protect civilians from violence and some communities have turned to self-defense groups to protect themselves and their livelihoods. The continuous cycle of insecurity (presence of militia groups, state absence, targeting of civilians, mistrust etc) has also hindered traditional conflict resolution mechanisms where land and water disputes would usually be resolved before they escalate.

Way forward

Adapting to instability has become a constant reality for many communities living at the intersection between conflict and climate change in north and central Mali. However, it is crucial that programmes and policies that focus on addressing the conflict-climate nexus also tackle the underlying structural inequalities, particularly the policy deficits that perpetuate vulnerabilities. There must be an equitable distribution of natural resources to ensure that the impact of climate disasters does not disproportionately impact minority pastoralist groups who are unable to adapt to these extreme changes.

In addition, there also needs to be significant investment and strengthening of governance (formal and informal) structures as a way of balancing the effects of conflict on climate change.⁸ Long term adaptation strategies should strengthen resilience and reduce the high dependence on rain-fed agriculture and pastoralism. Adaptation strategies and programmes must also ensure that they are not only conflict-sensitive, but that they also support peacebuilding.

METHODOLOGY



Women in Komi-Komi village take a midday break from work in their vegetable garden.

This report seeks to add to the conflict-climate nexus discourse with a focus on examining how conflict and climate change influence natural resources in northern and central Mali. It will also focus on land and water disputes between farmers and pastoralists in north and central Mali.

The report has been developed from data collected during the **context and protection analysis** undertaken by Islamic Relief in partnership with Start Network and Save the Children.

Data collection method

The data used in this analysis was collected using several methods. These comprise of a literature review that examined the relationship between the conflict and climate change, focus group discussions (FGDs) held with host, displaced, and returnee communities, as well as key informant interviews (KII) involving local governments and local and international experts. Furthermore, a total of 122 households were surveyed which allowed for a diverse range of stakeholders including all ethnic and displaced groups in Douentza and Gourma-Rharous.

In the Douentza region, 80 households were surveyed and among these, 60 were from the host community and 54 were from the majority Dogon ethnic group.⁹ A further ten were Tamasheq households who had been displaced since June 2019 after fleeing their village of origin in Seno-Drimbe.¹⁰ Finally, five were returnee families from the commune of Douentza which belonged to a variety of ethnic groups (including Bela, Dogon, Malinke, and Tamasheq) who had returned between 2012 to 2015 from Mauritania and the regions neighbouring Mali.¹¹

In the Gourma-Rharous region, 42 households were surveyed. Among these, 22 were from the host community and 15 were from IDP households, the majority of whom were from the Peul ethnic group and a minority of whom were Songhai.¹² Most had been displaced since December 2019 and originated from Douentza and other parts of the Mopti region. A further five returnee families from the Peul and Tamasheq ethnic groups were also interviewed, having returned in 2019 after taking refuge from the conflict in Algeria and Burkino Faso.¹³

Additionally, data derived from the Armed Conflict Location and Event Data Project (ACLED) was used to analyse incidents of intercommunal violence in North and Central Mali that took place between April 2018 and April 2021 to complement the primary data.

1. BACKGROUND

Mali is a landlocked country in Western Africa, within the Sahel region. From north to south, the country has a different climatic composition which presents a challenge for agriculture-based livelihoods. The north is the region most challenged by drought, desertification, and population migration whilst in the south regular flooding presents a challenge.¹⁴ The Niger River flows through the country, which serves as a major trading route with the vast majority of the population living along the Niger Delta.

Mali's economy is primarily based on agriculture and agro-pastoralism. Agriculture makes up more than 37% of the GDP and is a source of livelihood for 80% of the population.¹⁵ It is the dominant source of livelihood, with small-scale farming and pastoralism being most widespread as indicated in livelihood zones in figure 3. Livelihoods and ethnic distribution in Mali are closely linked. The largest ethnic group in Mali are the Bambara (25% of the population), mostly residing in the southern part of the country, where the main source of livelihoods is small-scale farming to produce cotton, millet, and maize. Dogon ethnic group (making up 8.9% up from 6% in 2015) mostly live in the Mopti region of Mali and also engage in small-scale farming as a source of livelihoods.¹⁶ Fulani ethnic group from the north and central part of Mali near the Niger Delta make up 14.7% of the population and mostly engage in pastoralism and agro-pastoralism as a source of livelihoods¹⁷ an increase of 5.7% from 2015. Similarly, the nomadic Tuareg ethnic group (making up 7.7 – up 2.7% from 2015), reside in the arid northern area of Mali, mostly engaging in pastoralism as a source of livelihood and regularly migrate to neighbouring countries like Mauritania and Algeria for trade market access.¹⁸

Whilst the vast majority of ethnic groups in Mali live in relative harmony. In some cases, the close relationship between the geographical distribution of livelihoods and ethnic identities presents some tensions, particularly between groups living in areas of arid climatic conditions often competing for natural resources such as arable land and water. Widespread poverty (68.5% of the population living in poverty¹⁹), alimited social protection, inequality, and harsh climatic conditions can all increase discontent and tension among ethnic groups, particularly where there is an unequal distribution of natural resources that negatively impacts their livelihoods.

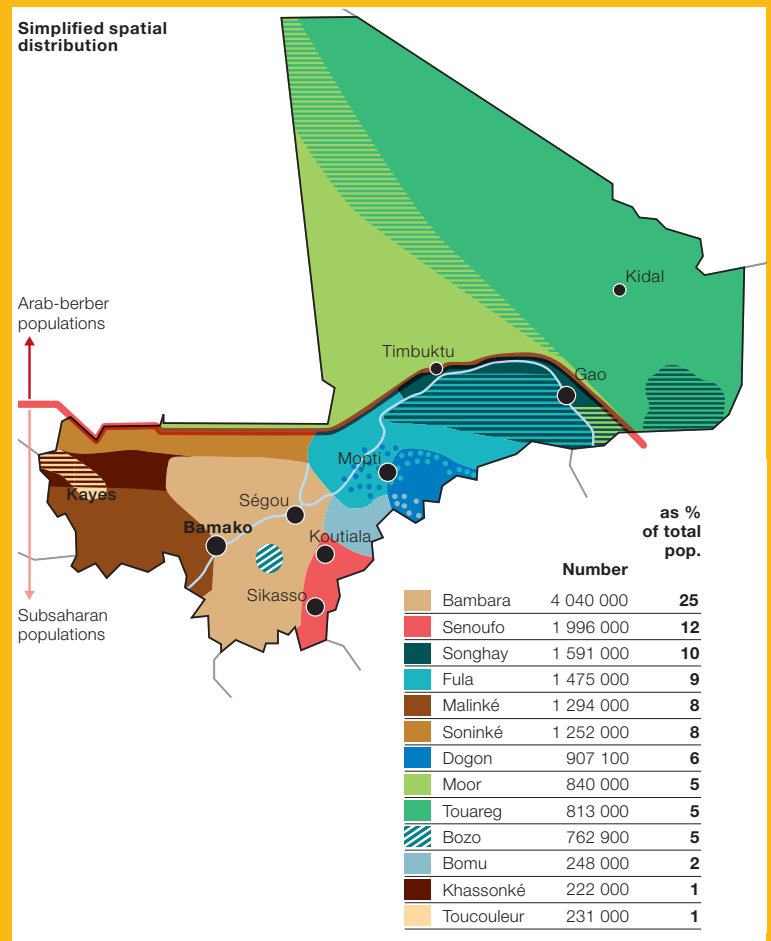
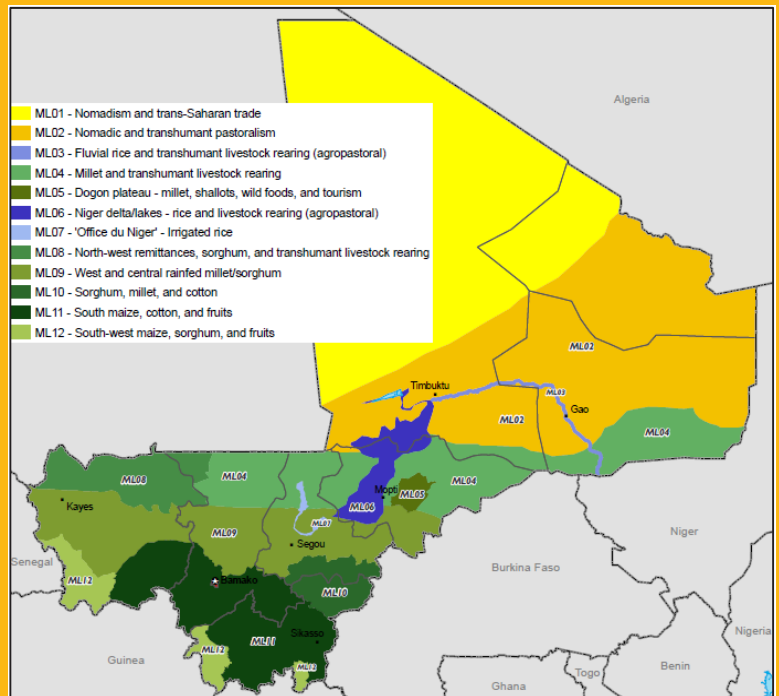


Figure 3; Malian ethnic groups and livelihood zones (sources: top – World Bank (2015) Geography of Poverty in Mali; bottom – SWAC (2015) The population of northern Mali)

1.1 KEY TIMELINE OF CONFLICT-CLIMATE EVENTS



1.2 CLIMATE CHANGE CONTEXT

Climate change is having a significant influence on water availability, food security and extreme weather events in Mali. The current average temperature of 28.2°C is set to increase by 1.2 to 3.6°C by the 2060s, and by 1.8 to 5.9°C by the 2090s, and this rate of warming is projected to be similar across all seasons.²⁰ The agriculture season coincides with the rainy season and runs from June to October in both north and central Mali as indicated in figure 4. However, the number of days of active precipitation, as well as the volume of precipitation, varies greatly and with the impact of climate change, this variability is likely to increase. The average annual precipitation ranges between 100 and 1700 mm and the average volume of rain is set to decrease in the arid north and central part of Mali.²¹ The rainy season is entirely limited to the summer, which lasts up to six months in the south and decreases to two to four months in the north as shown in figure 4.

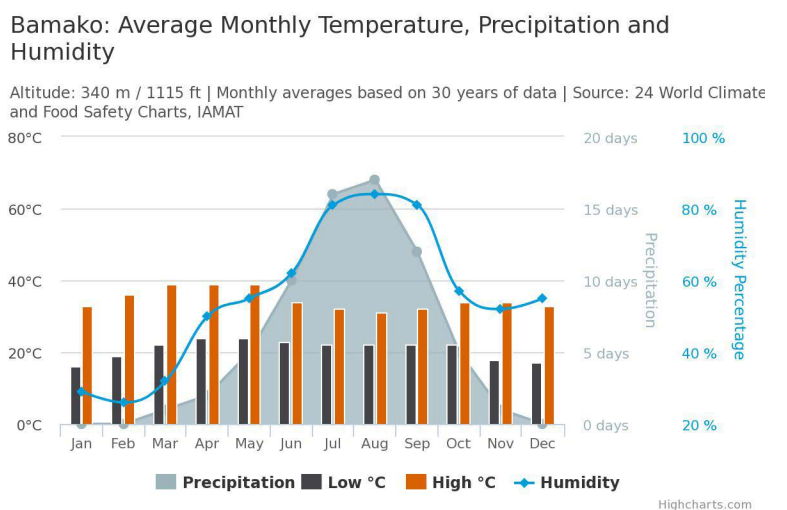
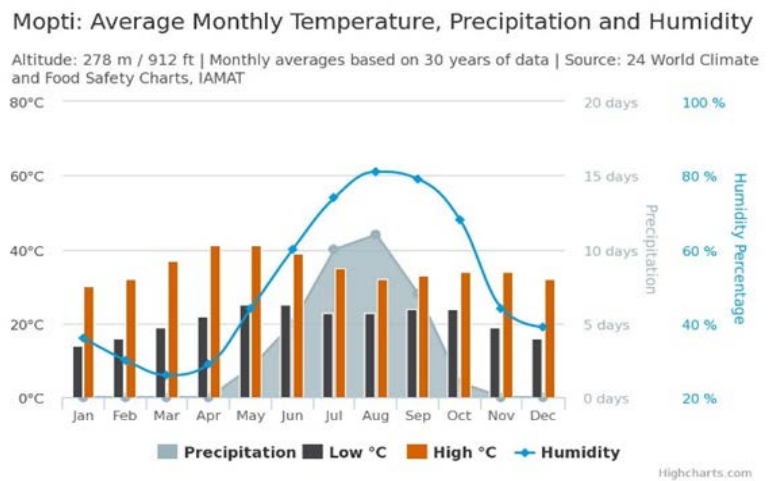
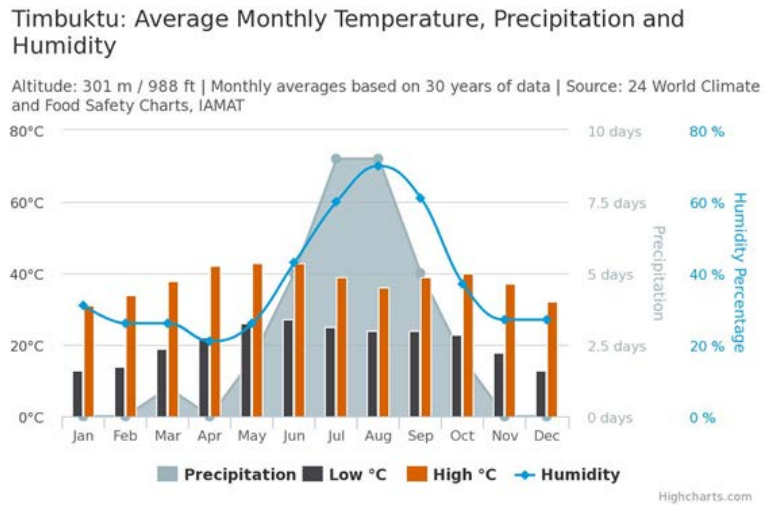


Figure 4; Average monthly climate data north and central Mali (source 24 World Climate and Food Safety Chart, IAMAT)



Floods destroyed Gabkoro's house and farmland in Nara. Islamic Relief's cash vouchers meant families could replace vital items like blankets, cookware, and hygiene products.

Temperature changes, particularly extreme heat can cause damage to crops and affect the health of livestock as well as farmworkers, which impacts productivity and consequently livelihoods. Crops are known to have a specific temperature window for optimal growth and yield. For instance, the cultivation of rice requires an average temperature of 20–27°C during the growing season and annual rainfall between 175 – 300mm for a successful yield.²² Cold temperatures and frost can affect early growth, but high temperatures above crop-specific thresholds rapidly reduce the yield.

Shifts in the water cycle will see increases in heavy rainfall and flooding increase can pose direct physical threats to life and property, but they also affect the health of plants. Too much or too little rain immediately reduces viability and productivity. Flooding can damage fields, interrupt transportation to and from the farms, and reduce the available food, triggering a humanitarian crisis. Heavy rainfall can lead to soil erosion and thus long-term viability. In 2020, heavy flooding in Gao, Mopti, Ségou, and Sikasso affected 13,200 people, including 5,400 internally displaced persons.²³

Increasing temperatures can trigger drought and exacerbate chronic water shortage and affect water quality, which might lead to the use of unsafe water sources. Drought can also increase undernourishment through impacts on crop yields. Between 2016 and 2018, Mali suffered a drought that severely impacted the growing season that subsequently impacted food security and displacement in Timbuktu, Gao, and Mopti regions.²⁴ Between June and September 2021, Gao and Mopti regions are projected to move into phase 3 (crisis) of acute food insecurity caused by the accumulative effects of extreme climatic conditions coupled with the effects of Covid-19 on income-generating activities.²⁵

Climate change is leading to more intense extreme events, increased average temperatures, and variability in rainfall which is leading to water, food insecurity, and displacement in north and central Mali.

1.3 CONFLICT CONTEXT



A meeting of a women's cooperative set up by Islamic Relief in Diago-Deni village, Circle of Kati.

Since the 2012 Tuareg Rebellion against the Government of Mali, the country has been struggling with conflict and insecurity in the north and central regions. To strengthen their hold in the north, the Tuareg MNLA merged with Islamist Ansar Dine rebel groups taking the cities of Timbuktu, Kidal, and Gao by July 2012. The insecurity left a power vacuum, allowing several non-state actors to join the conflict seizing territory in the north and central regions. The conflict triggered the mass displacement of 112,000 refugees who fled to nearby Niger, Mauritania, and Burkina Faso, whilst 250,000 remained displaced within Mali.²⁶

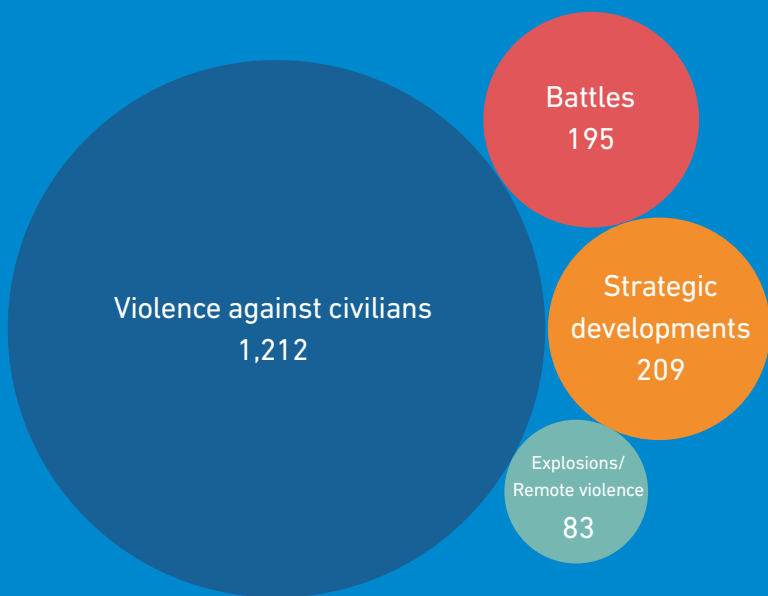
Insecurity spilled over to central Mali, particularly in the Mopti region leading to an increased presence of non-state actors and conflict and tensions also increased. Insecurity and a lack of state control in the area limited recourse for conflict resolution mechanisms (such as mediation and negotiation practices by customary leaders), leading to increased violence between ethnic groups, particularly Fulani, Dogon, and Dozo ethnic groups.²⁷ In an attempt to

protect themselves and their assets, herder and farmers joined existing rebel and Islamist groups whilst some formed self-defence militia groups. Fulani herders joined Movement for Unity and Jihad in Western Africa (MUJAO) whilst Dozo and Dogon farmers formed communal militia groups.²⁸

The intercommunal conflict between herders and farmers in north and central Mali has increased violence against civilians. There is also increased presence of ethnic militia groups as well as armed bandits with light weapons. Between April 2018 and April 2021, there was a total of 1,212 violent incidents against civilians.²⁹ As indicated in figure 5, violence against civilians often took the form of attacks, abductions/forced disappearance, and sexual violence.³⁰

Violence in this period was concentrated in north and central Mali, with most incidents being reported in the districts of Koro, Bandiagara, and Douentza.

CONFLICT EVENT TYPE



As demonstrated in figure 5, looting and property is a common strategic tactic used by rebel groups and well ethnic militia groups and it includes tactics such as cattle raiding, robbing agriculture products, and destruction of farm property. Civilians are often deliberate targets with attacks from ethnic militia groups competing for natural resources. In December 2019, Fulani militiamen attacked six Dogon villages killing 25 civilians, seized all livestock in the village of Anamoila, and also burned houses and granaries in the three other villages in Koro and Douentza districts.³¹ In April 2019, Dogon hunters (Dan Na Ambassagou) attacked the village of Birga and wounded one Fulani civilian, and seized 20 livestock.³²

Increased variability in rainfall, longer dry and lean season is more likely to increase the incidents of intercommunal conflict between ethnic groups as farmers and herders compete over natural resources like water and arable land whilst also trying to defend their assets.

SUB EVENT TYPE

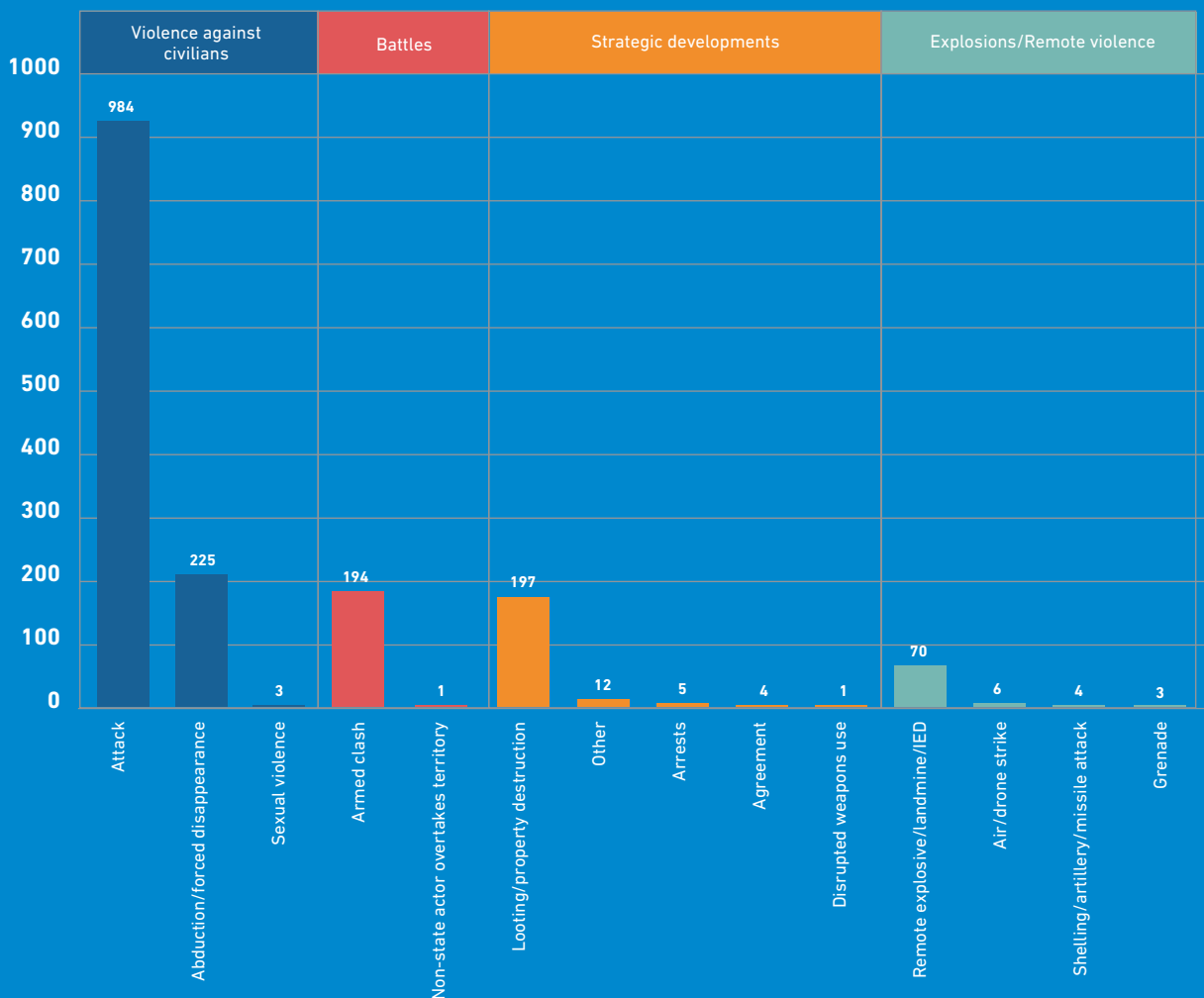


Figure 5 – Intercommunal conflict events in north and central Mali (2018-2021) (source ACLED data).

2. RELATIONSHIP BETWEEN CONFLICT AND CLIMATE CHANGE

Islamic Relief supported mother-of-six Koura, from southwest Mali, to increase her family's access to food and earn a reliable income through climate-adaptive farming.



The relationship between conflict and climate change is a complex non-linear relationship with multiple interacting factors involved. However, there is no strong empirical evidence to support a direct causal link between conflict and climate change.³³ Instead, much of the research and policies highlight a more nuanced relationship between conflict and climate change.

Climatic change and variability such as increasing average temperatures, rain variability, and droughts are increasingly creating recourse stresses (arable land, water availability) which in turn disrupts

communities that rely on climate dependant livelihoods such as agriculture and pastoralism. Climate change and variability limit the availability of vital resources leading to competition over these natural resources. Resource scarcity can be supply-induced (degradation and depletion of an environmental resource), demand-induced (population growth within a region or increased per capita consumption of a resource), and structural (unequal social distribution of a resource)—which collectively have multiple social effects, which, in turn, can encourage intrastate conflict.³⁴

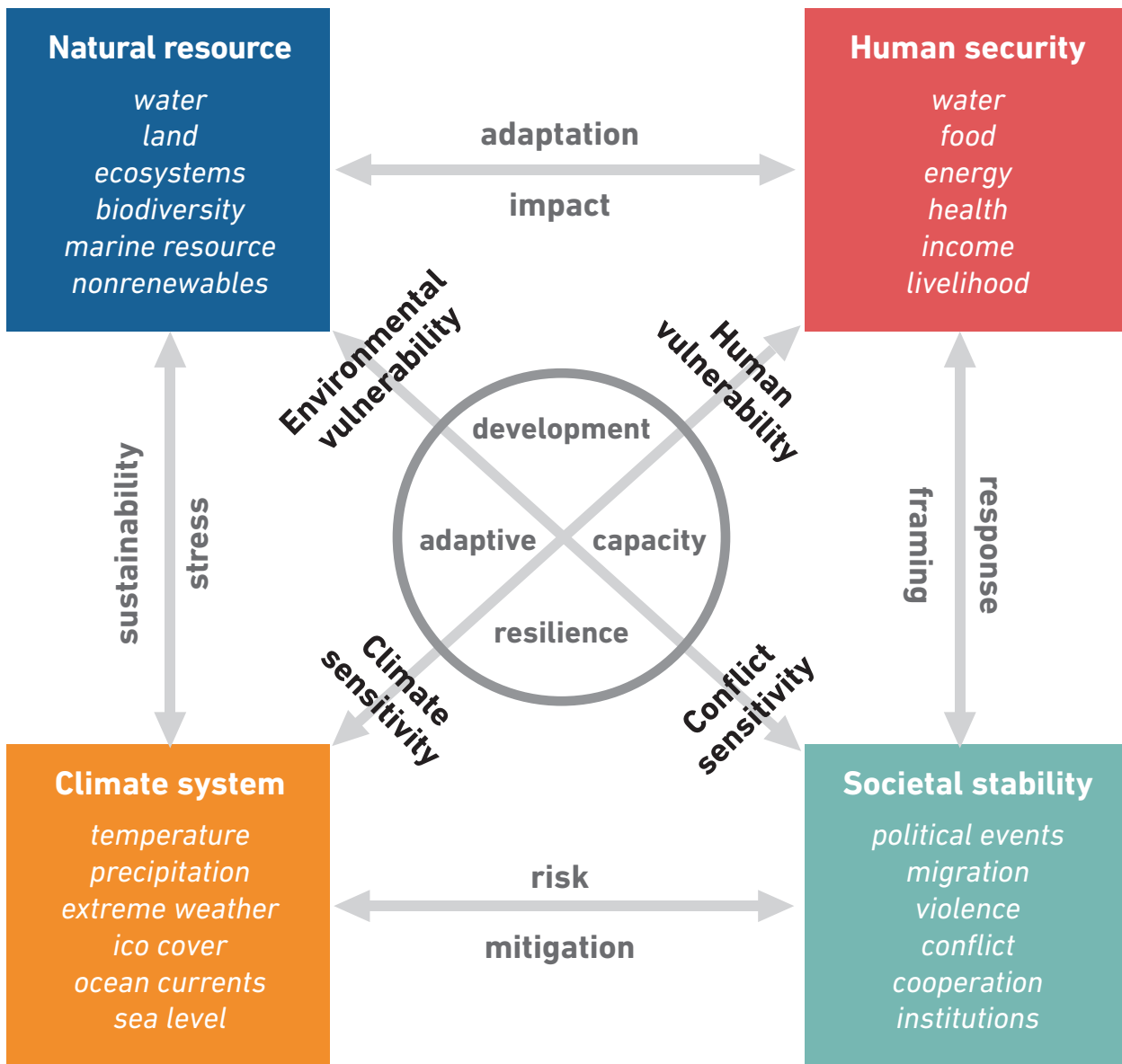


Figure 6: Analytical framework on the linkages between conflict and climate change (Source Scheffran et al., 2012)

As figure 6 demonstrates, climate change, particularly increasing temperatures, variability in precipitation as well as extreme weather events (such as floods, droughts) are creating stresses on the availability and productivity of natural resources such as water and land, thus creating environmental vulnerability. This, in turn, creates human vulnerability with limited access to water, food as well as disruptions to livelihoods, particularly for those engaging in land and water dependant livelihoods such as farming and animal herding. In some cases, the response to this human vulnerability as a result of resource scarcity is migration and conflict. Mobility and Migration have historically and effectively been used as an adaptation strategy.³⁵ For instance, people may migrate in search of water or arable land to alleviate vulnerabilities particularly the stress on their livelihoods. However, in cases where there lack of robust institutional governance, environmental and conflict management systems, competition over natural resources (particularly between migrant pastoralists and host

farming communities) is more likely to lead to conflict particularly when there an unequal distribution of natural resources.³⁶

Vulnerability can be broken down into three factors: (i) exposure to climate change, (ii) sensitivity to climate change, and (iii) adaptive capacity (32)- the last two can be affected by conflict.³⁷ Many of the world's poorest people are exposed to various risks to life, health, and wellbeing. If climate change adds to these risks, it can increase humanitarian crises and aggravate existing conflicts without directly causing them.³⁸

Consequently, a balance between developments, resilience, adaptive capacity is crucial to compensate for the increased exposure to climate change. It is therefore vital that mitigation and adaptation strategies are conflict responsive and contribute to cooperation via effective institutional frameworks, conflict management, and governance mechanisms.³⁹

2.1 CLIMATE CHANGE ACCELERATING INSTABILITY AND CREATING NEW VULNERABILITIES

The second most common theme in conflict-climate discourse is the notion that climate change can accelerate instability. The impacts of climate change – rising temperatures, intensifying extreme weather and droughts that increase food insecurity, water scarcity – can accelerate conflict and instability.⁴⁰ The combined effects of climate change and conflict can place an added burden on institutions already struggling with governance issues further fuelling instability.

This concept builds on the previous notion of climate change as a threat multiplier. Under this notion, climate change is not merely a contributing factor, but rather plays a significant role in accelerating instability creating more burden on institutions and systems.

The competition and consequently conflict over resources such as land and water may also contribute to power struggles over access to these resources. In a context where there is a breakdown in governance and absence of state actors, this leaves a power vacuum that is often exploited by non-state actors and terrorist groups in some cases, these groups are in direct control over activities relevant for both mitigation and adaptation.⁴¹ Increasingly, these groups are also weaponising and benefiting from intercommunal conflicts around natural resources to strengthen their influence and hold on to these areas by extending protection. This certainly presents a security threat but it also presents a challenge for climate change adaptation, particularly when these groups deploy strategies such as cattle raiding and restrict the mobility of pastoralist communities thus making it more difficult for them to access markets whilst also making the migration as an adaptation strategy less viable.



Uprooted from their home by conflict in northern Mali, Ramata and her children are living at a camp for displaced people. With Islamic Relief's cash support, families in the camp were able to buy food and the items they need for temporary shelter.

3. INTERCOMMUNAL CONFLICT IN NORTH AND CENTRAL MALI

The communal violence between farmers and pastoralists has been escalating since 2015.⁴² The root of the intercommunal conflict between farmers and pastoralists in north and central Mali is a complex conflict with several underlying factors as demonstrated in Section 1. Environmental and demographic pressure has increased demand for natural resources such as land and water. The variability in rain patterns, desertification, and deteriorating environmental conditions has disrupted and in some cases limited opportunities for livelihoods.

Access, control, and management over these valuable resources have driven conflict between communities, particularly farmers and pastoralists. The resulting insecurity, poverty as well as the compounding effect of climate change has induced people to migrate in search of water and pasture to protect their livelihoods. However, this migration and displacement occur against a backdrop where there is a lack of stringent demarcations for agricultural land and transhumant corridors, often resulting in further clashes when animals leave stipulated paths destroying crops as well as clashes at water points.⁴³

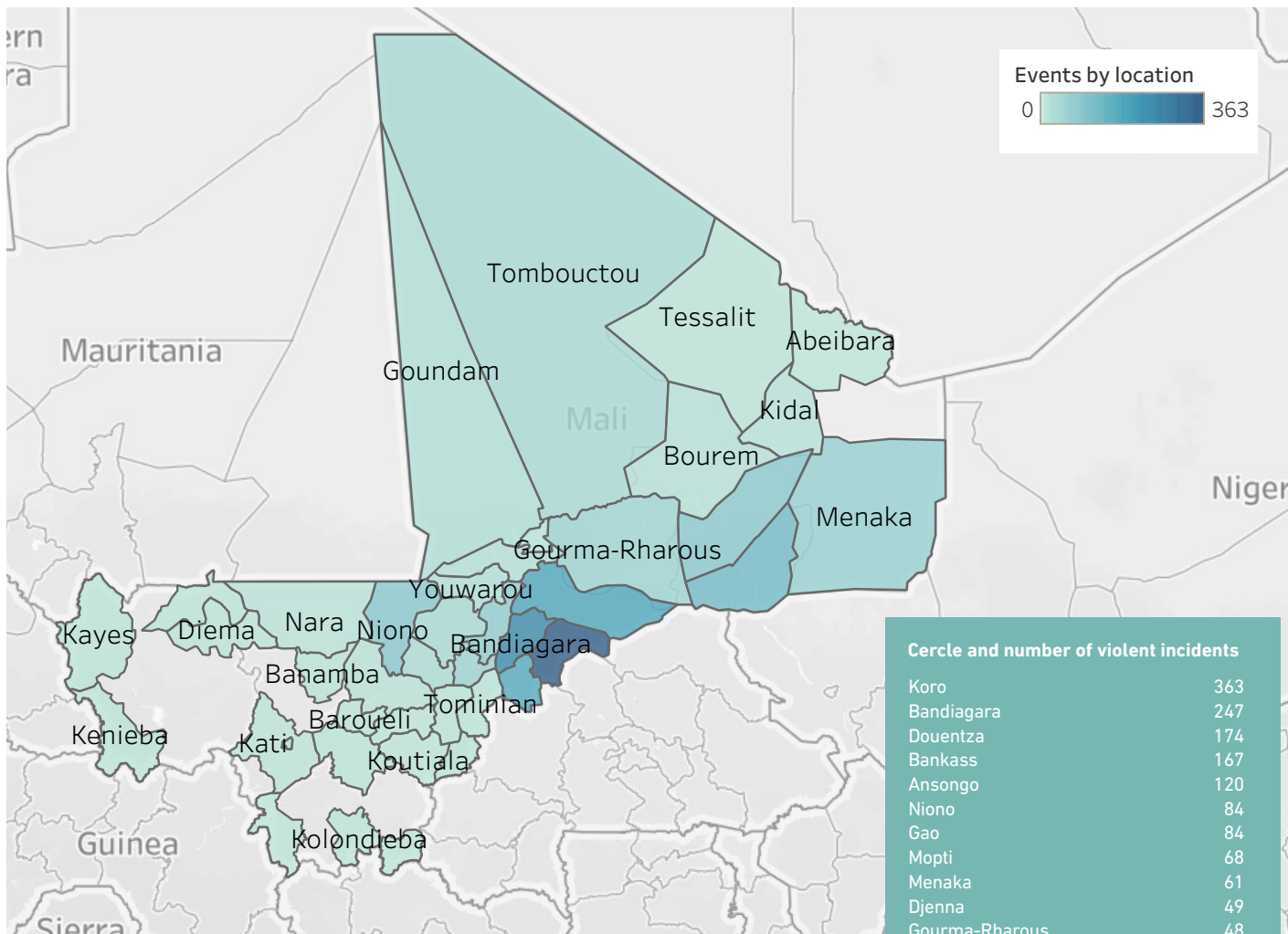
The focus group discussions with host, displaced and returnee communities in Tombouctou and Mopti regions have confirmed protection concerns due to insecurity, as well as challenges associated with deteriorating climatic and socio-economic situations. Lack of protection was one of the main concerns among most of the FGD participants with men from the host, displaced and returnee communities stating that their main concerns were surprised attacks and robberies, abductions, and property damage. Between April 2018 to April 2021, there were 984 attacks against civilians, 225 abductions and forced disappearances as well as 187 strategic lootings and property destruction which included cattle raiding and destruction of farmland in the Mopti and Tombouctou regions.⁴⁴

A displaced Fulani agropastoralist from Gourma Rharous expressed significant concern over safety stating: *"We feel in danger because we are afraid of surprise attacks and robberies. Men are more at risk to this than women. However women are at risk of harassment, sexual violence"*.

There were similar concerns around surprise attacks among women, but there was also more concern around sexual violence, and restrictions over movement limiting access employment and markets as well as the overall lack of security in the region. Klls and FGDs with women from host, displaced, returnee communities all expressed significant concern over sexual violence by armed groups. A Dogon female farmer from the host community stated: *"We feel in danger since there are inter-community conflicts everywhere and the bandits also roam freely in the bush with their weapons. We are exposed to harassment and sexual violence"*. Women and girls are often tasked with collecting water for household use. Restriction on movement and the tangible threat of sexual violence presents a daily challenge.

In some communities, there is an absence and mistrust towards state officials. Armed groups have sought to occupy that space, some as self-defense groups offering protection to these communities. However, this protection often comes at a cost. 51% of household survey respondents indicated that their movement was restricted by armed groups. Many of the FGD participants also expressed mixed reactions towards the presence of armed groups. All the positive reactions towards these armed groups were related to the protection they offered farmers and pastoralists, particularly the protection from violence and protections of livelihoods assets. A female dogon farmer from Douentza stated the presence of Dozo hunters in her village was a double-edged sword, stating their presence is *"positive because they provide security but it is also negative because they apply their laws to the people"*. In villages that had presence of armed groups such as Dozo hunters, there was also fear of being caught up in violence between armed groups, consequently worsening the security situation in the village.

INTERCOMMUNAL CONFLICT MAP



Cercle and number of violent incidents	
Koro	363
Bandiagara	247
Douentza	174
Bankass	167
Ansongo	120
Niono	84
Gao	84
Mopti	68
Menaka	61
Djenna	49
Gourma-Rharous	48
Tombouctou	33
Tenenkou	32
Macina	26
Goundam	21
Youwarou	18
Niafunke	16
Bourem	14
Bamako	11
Kidal	9
Dire	8
Yorosso	7
Segou	7
Nara	6
Tominian	5
Tessalit	5
San	5
Dioila	5
Banamba	3
Nioro	2
Kenieba	2
Kayes	2
Kadiolo	2
Diema	2
Baroueli	2
Yanfolila	1
Koutiala	1
Kolondieba	1
Kati	1
Bla	1
Abeibara	1

Figure 8; Intercommunal conflict map, Mali (2018-2021)

As figure 8 demonstrated, between April 2018 to April 2021 much of the intercommunal violence is concentrated in the north and central regions of Goa, Mopti, and Ségou, particularly in cercles of Koro, Bandiagara, Douentza, Ansongo, and Niono. Cercle of Koro is the center of intense intercommunal violence, with 363 incidents of communal violence between the first quarter of 2018 to the first quarter of 2021.⁴⁵ Much of the conflict in central Mali, particularly in Mopti is intercommunal violence between Fulani and Dogon communities. This intense intercommunal violence in central Mali has left more than 1.5 million people displaced from their homes in the last two years.⁴⁶

In January 2021, there were three peace agreements between Fulani and Dogon communities facilitated by Centre for Humanitarian Dialogue. The agreement signed by Fulani and Dogon community leaders further solidified the commitment of communities to ensure free movement of peoples, goods and livestock, whilst also condoning violence in the circle of Koro in Central Mali.⁴⁷ The agreement comes two years after the first Koro peace agreement in 2018 between Fulani and Dogon communities in central Mali. Whilst peace agreement is a promising step, the socio-economic and environmental drivers of conflict, particularly natural resource management needs to be addressed to ensure the longevity of peace in central Mali.

3.1 LAND-BASED COMMUNAL CONFLICTS

Access, control, and management of natural resources is a source of contention driving communal conflict between and within farming and pastoralist communities. *“There are conflicts and disputes in our village especially between the breeders because of the animals and between the farmers because of the land”*, says a female agropastoralist from Gourma Rharous during FGD.

The main source of tension between communities concerning land was the lack of clear demarcation of agricultural and transhumant corridors. 30% of household survey respondents stated that they were directly involved in land disputes in the last three months. More than half (54%) of the land-based disputes occurred between host communities mostly engaging in farming as a main source of income. Whilst 31% of land disputes involved returnees, 86% of whom have been able to recover the disputed land. The majority of respondents engaged in farming as the main source of income, whilst animal breeding and herding was the second most common source of income. Consequently, the majority of the land disputes among respondents occurred between farming communities.

The lack of adequate and fair land management systems was an issue that was consistently raised among FGD participants. The unequal distribution of natural resources like land shifts power dynamics between social groups, particularly where ethnic identity and livelihoods are closely interlinked.⁴⁸ Differing perceptions over land use between farming and pastoralist communities is an underlying issue contributing to conflict over arable land.

Changes in natural resource management systems during the colonial and post-colonial era has shifted power dynamics among social groups in central Mali, disrupting traditional power dynamics and legitimacy within communities.⁴⁹ Subsequent policies that prioritised agricultural output also contributed to the shift in power dynamics and consequent encroachment into transhumant corridors whilst also increasing competition over land between farmers.⁵⁰ In addition, unequal management of resources and agricultural prioritisation also shifts social standing between groups, particularly when formerly powerful members of society engaged in pastoralism are out-earned by those engaging in agriculture.⁵¹

Lack of authority increased land pressures, and mistrust is also another factor contributing to communal land-based conflict. Land-based disputes are usually resolved by village leaders, who trusted to resolve disputes fairly. Breakdown in conflict resolution mechanisms and state absence has meant that communities are resorting to their means to resolve land disputes. In the absence of state presence, some community members turn to armed groups to resolve disputes. Around 30% of survey respondents felt that disputes were not fairly resolved.



“Islamic Relief really helped my village. They set up a vegetable garden, gave us drinking water, and built a micro dam. We are very happy. We never want our partnership to end.”

Alou, village chief of Komi-Komi village

3.2 INTERCOMMUNAL WATER CONFLICTS

As the impact of climate change becomes more rampant and global temperatures increase, the water crisis in the Sahel region (particularly in Mali) is likely to increase, placing more strain on agricultural systems. Current projects show that temperatures in Mali are set to increase 1.2 to 3.6°C by 2060.⁵² This rate of warming is already having a devastating impact on agricultural productivity and consequently on the livelihoods and food security of vulnerable communities. Women and children are most at risk of water shocks because they have the least ability to adapt to the rapidly changing climate.

Increased competition over water can increase tensions and trigger conflict. Discrimination at water points was an issue consistently raised during focus group discussions. Women (usually tasked with collecting water for household use) from minority

ethnic and displaced communities are a prime target for such discriminatory acts which included longer waiting periods and in extreme cases refusal of access. **“We feel discrimination often. When we go to the well to collect water, there is discrimination to have the turn to collect”,** says one displaced woman from Bambara Maoudé village.

90% of survey respondents indicated that they did not have enough water for agricultural use. **“We don’t have enough water for cattle and agriculture due to the total absence of the pond”** said a woman from a displaced community in Gossi. 76% of survey respondents stated rain is their main source of water for agriculture. Increasing temperatures and variations in rain patterns present a significant threat to communities relying on agriculture.

Sitan, 50, lives in Komi-Komi village, where women were typically excluded from livelihood opportunities. She is a member of a women’s association formed by an Islamic Relief project which served 1,700 families across 10 villages in Circle of Kati, Mali.



4. CONFLICT PREVENTION AND ADAPTATION



A teacher uses the specialist training he received to deliver an engaging lesson in one of Siramana's three new classrooms.

Mali is ranked 169 on the Notre Dame Global Adaptation Initiative (ND-GAIN) country index, making it the 12th country with the highest vulnerability to climate change and the least adaptive capacity.⁵³ The country is also ranked 184 on the Human Development Index (HDI), which puts the country in the lower category of the HDI scale. Mali also scores high on the Multidimensional Poverty Index (MPI), highlighting several challenges such as poor health, lack of education, inadequate living standards, inequality, poor quality of work, the threat of violence, and climate change, among others. The Covid-19 pandemic has jeopardised progress in reducing multidimensional poverty. Based on current trends, Mali is off track to halve multidimensional poverty by 2030.⁵⁴

Due to these challenges poor and disadvantages, people suffer most from climate change and environmental degradation. They carry the double burden of being highly vulnerable to environmental degradation but also have the least adaptive capacity to withstand environmental degradation.⁵⁵ Many poor people depend on natural resources

for their livelihood, employment, and wellbeing. Degradation of the natural environment puts the livelihoods of these people at risk and implies an obstacle to reducing poverty. High competition and unsustainable use of natural resources can in some cases increase the risk of conflict whilst also aggravating environmental problems.⁵⁶

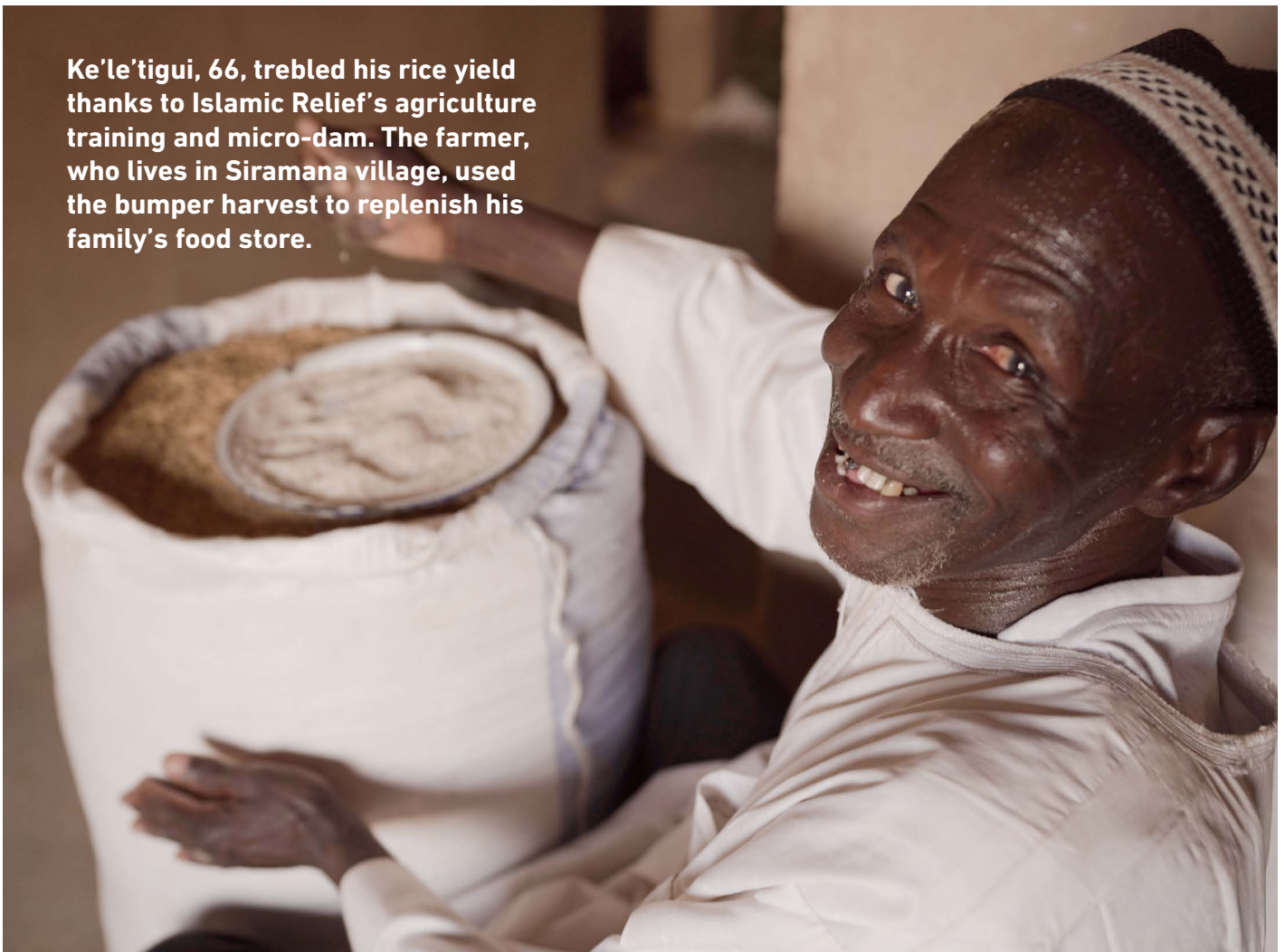
Consequently, working towards reducing poverty and the overall socio-economic wellbeing of disadvantaged communities will be a crucial backbone to effective conflict prevention and climate adaptation strategies, particularly in fragile contexts. FGD with host communities, IDPs, and returnees indicate the need for better socio-economic safety nets, particularly concerning accessing basic services and protection. 'We want to have a health center in our village, a dam for our cereal crops, fountains for clean water', says a male farmer from the village of Timba. Improving access to these basic services and putting safeguards in place to protect them is the responsibility of duty bearers.

4.1 DIVERSIFICATION OF LIVELIHOODS AND ADAPTATION

Pastoral and farming communities in Mali face complications that interact with climate change, such as intercommunal conflict, institutional barriers (particularly for marginalised pastoral communities), limited market access, and inadequate policy support on equitable natural resource management. To cope with these challenges, different adaptation measures have been adopted by communities to manage environmental shocks and stressors. The most common adaptation method was the diversification of livelihoods with 89% of survey respondents indicating that they had a secondary source of income. Most respondents (81%) engaged in farming as the main source of income and animal breeding (57%) as their second source of income-generating activity.

Diversification of livelihood as an adaptation strategy helps communities cope with diverse challenges such as drought which threatens food and livelihood security. However, livelihood diversification strategies are affected by households' level of education, access to credit, income, land size, farm input use, dependency ratio, family size, access to extension services, distance to market, and livestock ownership.⁵⁷ Thus, these challenges must be adequately addressed to ensure that they do not curtail efforts to diversify income as a means of adapting to climate change.

Ke'le'tigui, 66, trebled his rice yield thanks to Islamic Relief's agriculture training and micro-dam. The farmer, who lives in Siramana village, used the bumper harvest to replenish his family's food store.



4.2 MIGRATION AS AN ADAPTATION STRATEGY



Migration is a complex phenomenon and is thus not determined by one single factor. There are several overlapping environmental and socio-economic factors that affect the motives for migration, which influence the decision to migrate as well as the spatial and temporal patterns of migration.⁵⁸ Internal and Intra-regional migration is a common feature in Mali's migration landscape, with many migrants moving within the country or to neighboring countries. Intra-regional migration is facilitated by Economic Community of West African States (ECOWAS) policies, which allow for free movement of people and trade within the region.

Mobility has been a historical and cultural feature for communities in north and central Mali due to transhumance and nomadic pastoralism being a common source of livelihoods. As such, migration has always been an essential strategy for protecting and maintaining livelihoods. However, the increasing impact of climate variability and extreme weather has altered migration patterns leading to increased competition over natural resources.⁵⁹ For instance, there is increasing southward movement of transhumant herds during the dry season to access better vegetation and veterinary services as increasing competition over natural resources and may lead to land degradation.⁶⁰ This presents a source of tension with farmers and settled pastoralists who are also struggling with the adverse impact of climate change on natural resources. Thus, with the influx of herders who have been forced to migrate further south, the lack of clear land demarcations and migration corridors for pastoralists means that they often encroach on to farmland increasing the risk of intercommunal conflict during the migration cycle.

Migration is not only a way of life but also an essential adaptation strategy to cope with adverse

impacts of climate change. It is a strategy that is closely linked with protecting livelihoods. It is also crucial to diversifying the household's income, particularly in years with poor harvests. In this sense, migration serves as a long-term coping strategy or an immediate reaction to bad conditions and as an adaptation strategy for income diversification in the long run.⁶¹

In this context, it is important to point out that there are social and economic restrictions to adaptive behaviors. For instance, households in severe economic hardship and limited education may be unable to support the migration of family members and may have limited opportunities for diversifying household income.

Not everyone can migrate. There are socio-political factors that may restrict movement. For instance, growing conflict and instability within the country are creating restrictions in movement in some areas, whilst simultaneously displacing people in others. In addition to the instability, there are also economic restrictions. Migration is often expensive, and those most vulnerable to climate change are usually poor and unable to have resources to migrate particularly during droughts. This was a pattern observed in the 1983-85 drought when emigration in rural parts of Mali decreased alongside a rise in rural poverty.⁶²

Mobility and migration are among humanity's oldest and most fundamental adaptation strategies with many positive development effects.⁶³ As such, well-managed migration can be an effective adaptation strategy. Remittances provide a lifeline during times of bad harvest or drought. Along with sending back remittances, migrants also share valuable knowledge and networks that may improve their adaptive capacity.

4.3 CLIMATE CHANGE ADAPTATION IN CONFLICT SETTINGS

The interaction between conflict and climate change adaptation is a complex relationship that has a significant influence on the lives of people living at the edge of crisis. When these interactions are not closely analysed and adequately addressed with policies and interventions, it produces unintended political, economic and social consequences, and in some cases it can exacerbate existing conflict.⁶⁴ For instance, adaptation activities may affect existing resource allocation and power relations thus increasing the risk of conflict by distributing resources in ways that aggravate tensions between communities. This is particularly the case in communities where livelihoods and resource distribution are closely tied to ethnic identities. Therefore climate change adaptation measures should not only seek to do no harm, but also to support peacebuilding.

If climate change adaptation addresses underlying causes of vulnerability such as governance capacity, diminished resilience, and livelihood sustainability as well as inequality – in a conflict-sensitive way it can lead to significant peaceful outcomes in conflict settings.⁶⁵ Thus, just as climate change is regarded as a threat multiplier, climate change adaptation has the potential to be a peace multiplier.

Conflict-sensitive measures are essential to effective adaptation because conflict drives vulnerability and consequently undercuts adaptive capacity.⁶⁶ Conflict-Sensitive Adaptation (CSA) can therefore help guard against exacerbating factors that contribute to conflict and helps to actively promote factors that build peace and improve livelihood opportunities. This needs to form a cornerstone of adaptation policy and programmes.⁶⁷

To ensure that climate change adaptation is conflict-sensitive, conflict analysis should be integrated as much as possible into the process of climate change assessment and adaptation planning with involvement from local communities. Local communities are best-placed to identify conflict risks and potential solutions, as well as to identify the impact of adaptation interventions on conflict dynamics.⁶⁸ Considering conflict sensitivity should not be regarded as an afterthought, it should be actively integrated into vulnerability and context analysis and reviewed at each project cycle.

In addition, integrating conflict sensitivity into national and local adaptation plans is essential. Mali's current climate change policies do not address challenges caused by conflict and instability – rather the issues are addressed separately.⁶⁹ National adaptation plans focus on adaptation to climate change in key sectors such as agriculture, forestry, water resources, coastal zone, and human health.⁷⁰ As demonstrated in section 2, climate change is one of several factors that have the potential to exacerbate conflicts. Climate change has the potential to worsen security challenges. It thus requires effective measures to strengthen resilience to drought, flooding, and other disasters. Along with these measures, equitable management and distribution of natural resources may also help to transform conflict dynamics and shift towards peace. Using resources for peace models and indicators in climate change adaptation interventions may also help to create further synergy and ensure that climate change adaptation can fulfill its potential to be a peace multiplier.

CONCLUSION



Climate change is a contributing factor to disruptions in resource availability in north and central Mali. It is one of the several factors that are exacerbating the risk of intercommunal conflict between farmers and pastoralists over access and control of natural resources such as land and water. The triple effect of conflict, climate change, and poverty is worsening living conditions for the most vulnerable with increased attacks on civilians, food insecurity, displacement, and limited access to protection and basic services.

Land and water disputes, mistrust between communities, inequitable distribution of natural resources, as well as lack of clear land demarcations and transhumant corridors are some of the factors contributing to the increased intercommunal conflict. This has left space for armed groups to exploit these tensions for recruitment and to gain trust from communities. The presence of these armed groups creates fear and mistrust that drives insecurity. The study has found that the presence of ethnic militia groups provides a layer of protection for some communities. However, that protection is only reserved for people who belong to the same ethnic group. For those that fall outside of that protection remit, the presence of these groups presents a tangible threat to their safety and livelihoods. The resulting insecurity along with restrictions imposed by these groups makes it difficult for people to sustain effective adaptive measures.

The compounding effects of conflict and climate change are having a major impact on livelihoods for communities in north and central Mali. Food insecurity is a major challenge, with 88% of

households reporting a decline in food consumption in the last six months.⁷¹ Extreme temperatures and variability in rainfall have reduced agricultural production and income. Worsening insecurity is also leading to increased incidents of violence against civilians, destruction, and looting of livestock, and abductions. In addition, movement restrictions due to insecurity are also limiting their access to agricultural land and markets, whilst also limiting their adaptive strategies.

The report found that the most common adaptive strategy was the diversification of livelihoods with 89% of survey respondents indicating that they had a secondary source of income. However, these measures have not been sufficient enough to curtail the food security crisis. Another common adaptive strategy is migration. Migration is not an indication of a failure to adapt, rather it's an adaptation strategy that is historically used by nomadic and transhumant pastoralists to protect and maintain their livestock. However, insecurity and climate change are shifting migration patterns within north and central Mali which is having an impact on intercommunal conflict between farmers and pastoralists.

Whilst the trajectory of conflict and climate change in Mali continues to develop, it is essential that immediate action is taken to address some of the root drivers of conflict, particularly those that relate to natural resources to ensure that continued insecurity does not derail and diminish the adaptive capacity of farming and pastoralist communities.

RECOMMENDATIONS

To the Mali government:

Islamic Relief calls upon the government of Mali to:

1. Address structural challenges that inhibit equitable access and control of natural resources, in particular, challenges around land demarcations and ownership.
2. Ensure that national adaptation plans and strategies are conflict-sensitive and actively promote factors that build peace and improve livelihood opportunities.
3. Migrate challenges that undercut adaptive capacity through improvement in access to credit, education, and extension services.
4. Address communal conflict drivers and work with local communities to an integrated conflict resolution and natural resource management tools to address communal conflict.

To the international community:

Islamic Relief encourages donor agencies, UN agencies, and international organisations to:

5. Mainstream climate change adaptation in conflict-prone contexts by using insights from existing activities and experience in conflict-prone areas.
6. Recognise and invest in conflict prevention measures to promote adaptation in fragile-conflict-prone contexts.
7. Support locally led adaptation and peacebuilding policy and initiatives to promote ownership and regional partnerships.

To civil society:

Islamic Relief encourages civil society organisations to:

8. Advocate for mainstreaming conflict-sensitive adaptation into the policies and programmes.
9. Develop and implement comprehensive conflict analysis assessment tools for climate adaptation interventions in fragile contexts.

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Islamic Relief Worldwide

19 Rea Street South
Birmingham
B5 6LB
United Kingdom

Tel: +44 121 605 5555
Fax: +44 121 622 5003

irw@irworldwide.org
www.islamic-relief.org

Registered Charity No. 328158
Registered Company No. 02365572