

WEATHERING RISK

Climate, peace and security assessment: Mali

How climate and environmental
change compound conflict and
inequality

Executive Summary

Mali is experiencing both rising insecurity and significant climate variability. Violent conflicts take place especially in Gao, Kidal, Tombouctou, Mopti, Segou, and, increasingly, in southern and western regions. Over the past decades, the country has been exposed to substantial inter-annual and decadal rainfall variability as well as increasing frequency and intensity of extreme weather events. In the future, climate change impacts will put significant additional pressure on natural resource-based livelihoods, gradually limiting people's ability to adapt.

Outside Mali, attention has tended to focus on political and security developments in the wake of the military coup of August 2020, the announced withdrawal in 2022 of French troops from the Operation Barkhane counter-terrorism mission, and – most recently – alleged massacres of suspected jihadis by the Malian military and foreign mercenaries.

However, the country also experiences wider political, economic, and social challenges. Among a complex set of drivers of conflict dynamics in Mali, poor governance and structural socio-economic exclusion and marginalisation play important roles. Weak governance is both a cause and consequence of conflict: people often experience the state as corrupt, exploitative, predatory, and rent seeking; insecurity reduces state presence and service provision even further.

At the same time, livelihoods are increasingly difficult to sustain due. The problem is caused by recession, inequality, insecurity, corruption, social exclusion and policies that erode rather than enable coping strategies. These dynamics enmesh with significant demographic changes in the form of population growth, urbanisation, a shift towards sedentarisation, and movement in search of economic opportunities.

Against this backdrop, there is growing attention to the ways climate and conflict interact in Mali. However, there has been a lack of contextual evidence of specific risks, while concerns have rightly been raised that climate-related security risks could be

used to avoid tackling wider issues of governance, exclusion, and marginalisation.

This paper aims to address these needs, by presenting qualitative and quantitative data analyses of climate security risks in the country. Using the Weathering Risk methodology, this case study is based on interviews with 87 individuals (28 women and 59 men) in June 2021, as well as historical analysis and future projections of climate change impacts in Mali conducted at the Potsdam Institute for Climate Impact Research (PIK).

THE CENTRALITY OF GENDER RELATIONS

Gender relations are crucial to understanding political, economic, social, environmental and conflict dynamics, but are often under-examined, particularly when it comes to how certain norms of masculinities drive conflict or men's gendered vulnerabilities. Meanwhile, gender norms in Mali negatively affect women's access to, control over, and ownership of resources and decision-making, yet they are also crucial to family livelihoods and building peace. Concurrently, social stratification by livelihoods, power holders, and the cadets sociaux¹ embeds discrimination within society and is a key form of structural violence.

¹ Those whose social characteristics such as age, community and/or gender limit social mobility, block access to economic networks, and exclude them from positions of power.

Environment and climate change in Mali

Variability in climate, both geographically and over time, is not new to Mali, but recent decades have seen a steep change. Since the beginning of the 20th century, average temperature has increased by approximately 0.96 °C, accompanied by a considerable increase in very hot nights, with higher maximum temperatures and larger temperature variations in the northern parts of the country. During the same period, monthly average precipitation level decreased by 1.98mm (5%), with the on average wetter southern regions (most strongly Kayes and Sikasso) and very dry regions of Tombouctou and Taoudenit being particularly affected.

Other extreme weather events have also increased in frequency. The average number of heavy precipitation days per year rose from approximately 2.9 in 1999–2003 to around 3.6 days in 2012–2016. After the droughts of the 1970s and 1980s, an increase in flooding events has been observed across the Niger River Basin, in a general return to wetter conditions. Nevertheless, droughts have remained a recurring phenomenon. Mali is further experiencing major environmental pressures from human activity such as land degradation, which consequently reduces vegetation cover and contributes to the loss of fertile land – most notably a 15% or 366,000 ha tree cover loss due to deforestation between 2000 and 2020. Simultaneously, after the severe drought in the beginning of 1980s, a trend of re-greening has been observed across parts of the Gourma region in northern Mali, and in the Sahel region as a whole. It is important to remember that Mali's environmental challenges come both from climate change and from resource management systems often directly affected by conflict.

Looking to the future, precipitation and water availability projections are highly uncertain, but considering projected population growth, overall per capita water availability will very likely strongly decline. Meanwhile, temperature is projected to very likely rise between 1.8 and 2.5 °C by 2030, and between 2.0 and 4.6 °C by 2080 compared to pre-industrial levels. This temperature rise will affect the whole country, with higher temperature increases in northern Mali. The annual number of very hot days (with daily maximum temperatures above 35 °C) is projected to increase with high certainty all over Mali and will be much stronger in the south. The

population affected by at least one heatwave per year is projected to very likely increase from 2% in 2000 to between 3.6 and 9% until 2030, while heat-related mortality will almost double from 2.5 to 4.7 deaths per 100,000 people by 2030.

Climate security pathways

Our research revealed four broad ways in which climate change and conflict are linked in Mali.

1. Climate change and conflict, separately and together, impact livelihoods, block adaptation, and affect social cohesion

Climate change and conflict lead to significant livelihood changes and hinder adaptation. Populations have previously found ways to adapt to climate change and deal with conflicts, but their scale, coexistence, and interaction make doing so almost impossible for many. Moreover, strategies to adapt to climate change are diminishing social cohesion and worsening conflict dynamics.

2. Weak governance, rent seeking and corrupt behaviour negatively affect adaptation, conflict dynamics, and environmental degradation

Weak governance and rent seeking, corruption, and conflict-insensitive behaviour by government and community leadership constrain adaptation to climate change, feed grievances, and contribute to ineffective conflict resolution. As a result, they weaken trust and confidence between the population and the government and drive conflict dynamics further with armed opposition groups (AOGs) actively exploiting these grievances to strengthen their legitimacy and gain support.

3. Increasing competition over natural resources contributes to rising (intra- and inter-communal) tensions and violence

Climate change, through its negative impacts on natural resources availability and quality, is one factor exacerbating competition over land, water, and forest and river resources. Tensions over access, usage, and control of natural resources within and between different livelihoods groups are rising and increasingly escalating into violence. This dynamic in turn affects social cohesion, contributes to stigmatisation of certain groups, and plays a role in escalating cycles of violence. However, there is no simple and automatic causal link between climate change, resource competition, and violence. Factors including the availability of arms, the militarisation of conflict, the lack

of effective, inclusive, just, and conflict-sensitive governance and natural resources management, the creation of militias, and (localised) histories of contestation and marginalisation play an important role in translating competition over natural resources into conflict and violence.

4. Climate insecurity is caused by and widens already existing inequalities, eroding ability to adapt, and driving conflict further

Inequality is a key cause and consequence of climate insecurity. Neither the impacts of climate insecurity nor capacities to adapt are distributed evenly among the population groups. Certain groups, including women, are blocked from undertaking strategies used by others to adjust to changing dynamics. As a result, the combined impacts of climate change and conflict and related climate insecurity risk widen already existing inequalities, with layers of exclusion often overlapping. Climate insecurity also increases levels of gender-based violence. Respondents shared how marital tensions, rates of divorce, and domestic violence increased in response to livelihood difficulties linked to climate change and conflict. Other forms of violence discussed included early and forced marriage, marriage for exchange, sexual exploitation, harassment, rape, and limitations on rights. Concurrently, grievances linked to these unequal impacts and related barriers drive conflict dynamics. This interaction creates a vicious cycle of increasing climate insecurity, conflict, and inequality.

Recommendations

Continued changes in Mali's climate will further affect animal and human health, food security, and livelihoods. Concurrently, there is also significant concern that existing conflict dynamics may deepen, worsen, and spread to new areas. As a result, action to mitigate and adapt to climate change, address the root causes of conflict, and tackle drivers of climate insecurity is urgent.

The pathways outlined in this study show how climate change is one of many factors that interact with conflict and affect people's lives. A focus on climate security should not be a way of avoiding dealing with challenges of improving governance, tackling age, class, gender, and other inequalities, ensuring justice, and addressing other root causes of conflict. Further, an emphasis on environmental and climate action could have unintended consequences if done in heavy-handed

and conflict-insensitive ways. Climate security interventions should instead seek to address interactions between these factors and climate change. The pathways show the different ways climate change exacerbates and interacts with conflict drivers and dynamics, and how conflict undermines the adaptive capacity and resilience of communities. These links provide entry points for integrated actions that combine climate change action and peacebuilding.

Furthermore, as focus and funding on climate security increase, it will be important for actors to engage with Malian scientists, conflict analysts, and community leaders to ensure that interventions are not just relabelled but rather actually address the climate security dynamics detailed in this Weathering Risk climate, peace and security assessment. With this in mind, we present the following climate security recommendations for the Government of Mali, civil society, donors, international NGOs and United Nations (UN) agencies, and MINUSMA.

Here we set out a summary of the seven recommendations which emerge from our analysis. A more detailed elaboration of the recommendations with exemplary entry points for targeted actors can be found in the full report.

- 1. Improve collection and sharing of climate data** to enable better weather forecasts, modelling, and predictions, and communicate this information across government ministries, departments, and agencies, civil society, and the general public. Provision of reliable and weather and climate information will enable informed policy making, programming, and planning for climate adaptation and can also have trust-building and social contract reinforcing co-benefits between people and state.
- 2. Raise awareness of conflict-sensitive climate adaptation** so people know how to adapt in ways that do not exacerbate inequalities and conflict. A greater understanding of shared challenges and the inclusive and joint process of addressing them can build social cohesion within and between groups.
- 3. Improve inclusivity, accountability, and responsiveness of governance and security provision, particularly around natural resource management**, to address current frustrations and grievances and prevent deforestation and

environmental degradation. Inclusion of all relevant groups in a way which provides them with the resources they require, safe space to be heard without fear of retribution, and genuine scope to inform and make decisions will not only ensure that decision making is more equitable and does not inadvertently harm some groups in favour of others, but also sustainable.

- 4. Prioritise building climate security resilience in southern Mali** through improving social cohesion, addressing material realities, and improving climate resilience. Improving social cohesion and strengthening governance capacities to address material realities of those most at risk can improve climate resilience and mitigate the risks of current climate insecurity dynamics further undermining peace in the south of Mali.
- 5. Encourage agro-ecological, climate-smart, and conflict-sensitive practices** by starting and expanding interventions and communications to improve food security and livelihoods in sustainable and conflict-sensitive ways. Sharing information across identity groups on mutually beneficial farming techniques can create trust and build social cohesion between groups, as well as enhance climate resilience and food security.
- 6. Ensure ongoing and inclusive integrated climate security assessments of Mali.** Climate security dynamics are ever-changing, so regularly updated assessments are important to enable knowledge and mitigation of evolving climate security risks.
- 7. Strengthen government, military and civil society capacity to support populations, particularly those socially excluded, to adapt to climate security risks.** Addressing underlying inequalities and ensuring inclusive and accountable processes can bolster the social contract between people and the state, mitigate the impacts of climate security, and reduce their risks of creating or further entrenching grievances.

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