

# Climate change and state fragility in the Sahel

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»» Many climate experts agree that the Sahel is a key hotspot for global climate change. Throughout the region, higher temperatures, increasingly variable rainfall, and more frequent droughts and storms will interact with high levels of vulnerability and low adaptive capacities to significantly challenge continued development progress. Increasing regional insecurity further threatens development: ongoing civil conflicts and secessionist movements, the pervasiveness of organised crime, and the rise of extremists groups such as Boko Haram and Al Qaeda in the Islamic Maghreb (AQIM). The security implications of these trends extend beyond the Sahel to Africa more broadly, Europe and the Middle East. Ensuring that climate change does not trigger or further exacerbate conflict or weaken states across the Sahel will be a major challenge for both national governments and international actors.

## CLIMATE CHANGE: TRENDS, FORECASTS AND VULNERABILITIES

Temperatures across the Sahel have increased by nearly 1°C since 1970, at a rate nearly twice the global average. Data deficiencies make it difficult to draw conclusions about trends in rainfall over the past century, but droughts have been severe and recurrent, and floods have occurred more frequently and with greater intensity. Extreme weather events are no longer isolated; in recent years, drought has become

## HIGHLIGHTS

- Climate change can combine with political and economic instability, poverty, inequality and historical grievances to exacerbate tensions or trigger conflict.
- Poor governance, weak institutions, capacity constraints and corruption restrict the ability of Sahelian states to address climate change.
- Peacebuilding interventions should be climate-resilient and climate change responses must be conflict sensitive.

»»»»» increasingly common, having struck in 2005, 2010 and 2012, while significant flooding has become a yearly occurrence.

The Sahel will get hotter. The Intergovernmental Panel on Climate Change expects temperatures in the region to increase by nearly 1°C over the next 20 years, 2.1°C by 2065, and 4.0°C by the end of the century. It is unclear how these temperature changes will influence rainfall; climate models cannot say with any confidence how precipitation rates will change in the decades to come. Variations in rainfall are likely to be more closely linked to natural decadal variations, the kinds that resulted in the severe droughts of the 1970s and 1980s. However, it can be said that increased temperatures will increase the rate at which water evaporates, posing a threat to already vulnerable eco-systems.

The region's vulnerability to climate change is rooted in a number of factors. Widespread poverty limits the resources with which communities and individuals can adapt to and recover from climate events. Economic reliance on farming and pastoralism mean that livelihood and food security is intimately linked with weather trends and environmental conditions. The Sahel's population is growing quickly: from 2000 to 2010, it jumped 30 per cent, and continues to increase at nearly 3 per cent per year. This means that more people will require more land, more food, more water and more jobs in a context in which all four are already in short supply. The population is also young (the median age of all Sahelian states is under 20) and under-educated; the Sahel has the highest rate of out-of-school children in the world, which does not bode well for a future in which low-skill farming and herding livelihoods are increasingly constrained.

In addition, poor governance, weak institutions and corruption restrict the ability of states to address the threat of climate change, to manage critical natural resources, to mediate and resolve resource conflicts, to deliver basic services and to enforce resource rights – all of which undermines their legitimacy in the eyes of the population. Fur-

thermore, gender discrimination and unequal access to decision-making processes hampers the ability of women – often those most vulnerable to climate change impacts – to cope with changing conditions. In addition, conflict, political instability and terrorism stall or even reverse development progress, displace thousands, and overwhelm government efforts to address climate impacts.

The capacity to cope with and adapt to climate impacts will differ across countries, provinces, communities and even within households. And while long-range climate projections are useful and important, shorter-term trends in climate variability are more likely to impact the emergence of conflict risks. While it is useful to know that temperatures will have increased by 4.0°C by the end of the century, national contexts will be so starkly different by then, due to a host of non-climatic factors, that making long-term predictions about climate-related conflicts holds little value.

The Sahel's high exposure to climate change and low adaptive capacity mean that if left unaddressed, these changes in climate will have an increasingly negative impact on lives and livelihoods across the region. Drought and high inter-annual climate variability already strongly contribute to the Sahel's continued underdevelopment, and climate impacts are already being felt across the region in the form of decreased agricultural yields, the loss of pasturelands, and the drying up of important water bodies. This situation will only worsen in the absence of effective action to address the vulnerabilities outlined above.

### **CLIMATE CHANGE AS A 'THREAT MULTIPLIER'**

Climate change is unlikely to be a direct cause of conflict in the Sahel. Instead, it is expected to contribute to conflict by acting as what United Nations (UN) Secretary-General Ban Ki-moon refers to as a 'threat multiplier', exacerbating tensions and potentially triggering new conflicts when combined with existing conflict drivers like political and economic instability, poverty, inequality, weak governance, and historical grievances.

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In interacting with these other conflict drivers, climate change could increase political instability by undermining governance and the quality of national institutions. It could enflame ethnic, regional or other identity-based tensions, particularly those between farmers and pastoralists. It could push desperate populations toward extremism and criminality. It could exacerbate existing or trigger new national and regional security threats. And it could undermine existing peace-building and development efforts.

#### **Weak governance and institutions**

Weak governance is a key variable in the relationship between climate change and conflict. Many of the governments in the Sahel already have difficulties providing basic services to their populations,

and few adequately address citizen grievances relating to a host of development challenges: protection from violence, unemployment, mounting inequality, migration pressures, and livelihood, food and land tenure insecurity. These governments, and their institutions, are already under-funded

and overstretched. Climate change threatens to overwhelm them.

Estimates from the African Development Bank put the costs of adaptation in Africa at US\$20-30 billion per year over the next 10 to 20 years. This is the amount needed to reduce climate vulnerability to an acceptable level, and while continent-wide, it does give an idea of the scale of resources required in the Sahel to address the challenge of climate change. Only a fraction of the required funds have been committed or delivered to date, and Sahel governments will not be able to make up the difference from their own already-stretched budgets. Efforts to do so without further outside help will only serve to erode other

national institutions should funds be diverted away from spending on health, education and infrastructure toward responding to climate change. By failing to deliver these necessary, basic services, vulnerability will only increase, particularly among the most marginal. In a future where the frequency and intensity of extreme weather events increases, and governments are unable to respond, this could be the reality.

A failure by governments to help individuals and communities adapt to climate change will further erode the social contract and in turn undermine the legitimacy of Sahelian states. By being unaccountable to their constituents' needs, in part because they do not have the resources or capacities to do so, governments risk creating a vacuum easily exploited by terrorist groups and organised crime.

#### **Identity and livelihood-based tensions**

The Sahel has seen a rise in tensions between pastoralists and farmers, as the two groups increasingly compete for land and water. Farm and pastureland are not increasing at the same rate as population across the region, and if productivity gains cannot make up the difference, climate change is poised to accelerate this competition for resources by changing where and when rain falls and where food and fodder can be grown.

Northern pastoralists are extending further southwards into the Guinea Savannah, a zone traditionally dominated by crop agriculture. At the same time, farmers in areas like southern Mali are expanding crop production into migratory corridors traditionally used by herders, driven into them by population pressures. There have also been efforts, among farmers, to clear marginal lands for agriculture in the hopes of making up for productivity losses linked to failed rains, but these actions have more often than not simply further degraded the land and soil.

The expansion of agriculture into pastoralist areas is increasingly fragmenting the migratory routes traditionally used by pastoralists, sparking grievances and tensions, while the encroachment of livestock into crop fields threatens farmer

## **Ensuring that climate change does not trigger or further exacerbate conflict or weaken states across the Sahel will be a major challenge**

»»»»» incomes. According to the United States Agency for International Development (USAID), both groups are also now increasingly turning to each other's livelihoods to supplement their incomes, with farmers now holding livestock and herders planting crops. This results in increasing competition over the same dwindling resource base.

Existing agreements among West African states allowing cross-border pastoralist movements could further complicate these resource conflicts, bringing more groups into competition with each other over land and water. The influx of small arms and light weapons into the region, following the Libyan civil war, increases the risk of tensions turning violent.

#### **Extremism, criminality and illicit activities**

Climate change could further compound the security threat posed by extremist groups and organised crime networks operating in the Sahel. The region's population is young, growing and overwhelmingly rural; livelihoods are largely centred on climate-dependent natural resources, including land, water and pasture. Should rising temperatures, extreme weather events, and variable rainfall undermine these livelihoods, and governments prove unable to help their populations cope with the impacts and secure alternative livelihoods, terrorist organisations and criminal networks could fill the void. These destabilising forces in turn reduce the ability of governments and communities to respond to the threat of climate change, creating a vicious cycle of vulnerability.

Terrorist groups – including Boko Haram, AQIM, and the Movement for Oneness and Jihad in West Africa (MUJAO) – can take advantage of the helplessness felt by marginalised groups in the face of climate change, by turning it into anger and action against both Sahelian states, which are not doing enough to address the impacts, and the West, which can be blamed for the climate problem.

In addition, organised criminal networks have capitalised on the weak reach of governments to turn the Sahel into a key transit point in the traf-

ficking of narcotics and arms. These activities present viable – if illicit and dangerous – income and livelihood opportunities to those marginalised segments of the population that are seeing their traditional livelihoods – farming and pastoralism – undermined by rising temperatures and shifting rainfall patterns.

#### **Inter-state tensions over access to water**

Surface water and groundwater resources in the Sahel are mostly cross-border; for example, all of Burkina Faso's rivers and waterways are shared with its neighbours. Most countries in the region have high dependency ratios when it comes to water, according to the Organisation for Economic Cooperation and Development (OECD): a high proportion of their renewable surface water resources originate outside of their borders. For Mauritania, this figure is 100 per cent; none of its water resources is solely domestic. In addition, many of the region's groundwater aquifers are also cross-border.

This high level of water interdependence could trigger tensions in the Sahel, where freshwater withdrawal is increasing due to population growth, development progress and agricultural expansion. An increase in the frequency and intensity of droughts and floods will impact the reliability and predictability of water supplies, while higher rates of evaporation, linked to warming temperatures, will likely reduce the rate at which aquifers are recharged.

Increasing demand for water, coupled with decreasing supply, could lead countries to hoard or divert water resources before they flow into neighbouring states, or increase the rate at which they withdraw water from shared aquifers, creating tensions between nations. Large-scale dam construction in the region is expected to increase, according to the OECD, due in part to the need to capture surface water resources to meet national demand and ensure food security.

International conflicts over water have yet to emerge; countries recognise that, for this most important resource, cooperation is more advanta-

geous. The Sahel's major water basins – including those of Lake Chad and the Niger, Senegal and Volta rivers – are each managed by cross-border basin agreements. These agreements establish platforms for dialogue and cooperation on basin management among all relevant countries, and as such provide a means for preventing and resolving disputes before they escalate. However, it is uncertain if these inter-governmental agreements can withstand the pressures presented by climate change and increased water demand.

Insecurity may also result from the interaction between the region's acute refugee crisis and short-term climate variability. Conflicts in the Sahel have displaced 2.8 million people, internally and across borders, according to the UN. Host countries and communities are already struggling to meet the humanitarian needs of these populations: insecurity outside of its borders means that Chad, for example, is currently hosting 460,000 refugees from the Central African Republic (CAR), Libya, Nigeria and Sudan, while also trying to reintegrate 200,000 Chadians returning from Libya and CAR. According to the UN, this has placed additional pressure on already scarce resources. A drought or flood could easily serve to deepen the humanitarian crisis and potentially exacerbate cross-border tensions.

### **INTERNATIONAL PEACEBUILDING AND DEVELOPMENT EFFORTS**

A failure to address the impacts of climate change threatens to undermine existing peacebuilding and development efforts in the region. All five pillars of the UN's current humanitarian appeal for the Sahel will be negatively affected by climate change: nutrition, conflict, epidemics (primarily vector-borne diseases like cholera and malaria), food security and natural disasters. While remaining grounded in good development and humanitarian practices, climate risks and considerations must also be integrated into the response strategies for each of these pillars to ensure their success and sustainability. If they are not, climate change risks further destabilising already fragile situations.

The UN's Integrated Strategy for the Sahel (2013-2020) focuses on three pillars: governance, security and resilience. All three are connected, and success in each can improve the ability of individuals, communities and countries to face the challenge of climate change. At the same time, climate change could undermine the strategy by: overwhelming governments and institutions and amplifying inequality and marginalisation; triggering conflicts and creating opportunities for radicalisation and criminal activities; increasing household vulnerability and food insecurity; and reversing development gains.

The European Union's (EU) strategy for the Sahel focuses on improving governance, addressing terrorism, and breaking up criminal networks. It also recognises climate change as a contributing factor influencing instability in the region. Moreover, EU member states have been at the forefront of the climate-conflict debate since its inception, with both Germany and Britain hosting Security Council debates on the subject. Recent European support for building resilience across the region (through the Global Alliance for Resilience), as well as EU and bilateral support for adaptation, should help to address climate-conflict links.

Beyond concerted international action to mitigate greenhouse gas emissions, significant funding will be required to strengthen the adaptive capacity and resilience of Sahelian countries, communities and individuals to cope with and rebound from climate change. The UN puts the required funding for Africa as a whole to adapt to climate change at up to US\$100 billion per year by 2050; it notes that current levels of funding are insufficient for meeting demand, and must be increased rapidly. Without increased support for adaptation and resilience, climate change threatens to undermine development and peacebuilding efforts, overwhelm regional governments, and further contribute to fragility across the Sahel.

Regional stability, adaptive capacity and climate resilience are achieved through many similar investments, which will require the support of





»»»»» the international community. These include strengthening statutory and customary governance and institutions, including dispute resolution mechanisms; and providing basic services and visible, equitable development gains, particularly to marginalised populations. Clarifying resource rights, particularly around water and land, should also be a priority, alongside integrating climate risks into other sectoral policies and responses, including water, health, agriculture, gender and disaster management. More support is required for research into new seed varieties, crop types, livestock breeds, and growing techniques; for improved water management; and for building early warning systems and meteorological networks that ensure support arrives when and where it is needed. Finally, regional cooperation should be enhanced.

According to the International Institute for Sustainable Development, the international response must be two-pronged. First, peacebuilding interventions should be climate-resilient, so that they take into account the implications of near- and long-term climate risk as a contributing factor in driving conflict. This could mean integrating drought and flood risks into decisions on refugee camp placement, or including climate risks in reintegration programmes for ex-combatants. Second, climate change responses themselves must be designed and implemented in a conflict-sensitive way, to ensure that, at a minimum, the interventions do not increase the risk of conflict and – preferably – they instead enhance peacebuilding opportunities. For example, ensuring that the benefits of adaptation programmes are equitably distributed across all the relevant stakeholders.

## CONCLUSION

While the Sahel's climate is getting worse, its countries are also quickly developing. They are building better institutions, and their economies are growing – at some of the fastest rates in the world. The question is whether these development gains are translating into equitable improve-

ments in adaptive capacity, and if these improvements will outpace the negative impacts of climate change.

Communities across the Sahel have been adjusting to a harsh, variable climate for centuries. It would be wrong, and unfair, to assume that individuals and communities in the region will automatically resort to violence in the face of climate-related pressure and change. However, it would also be unwise to assume that there is precedent for the scale of change that is expected in the region over the coming century. Designing policies, programmes and projects that support the resilience and adaptive capacity of individuals, communities and governments, and in so doing reduce the risk of climate-related conflicts, is the only way to ensure continued progress toward peace, stability and development across the Sahel.

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