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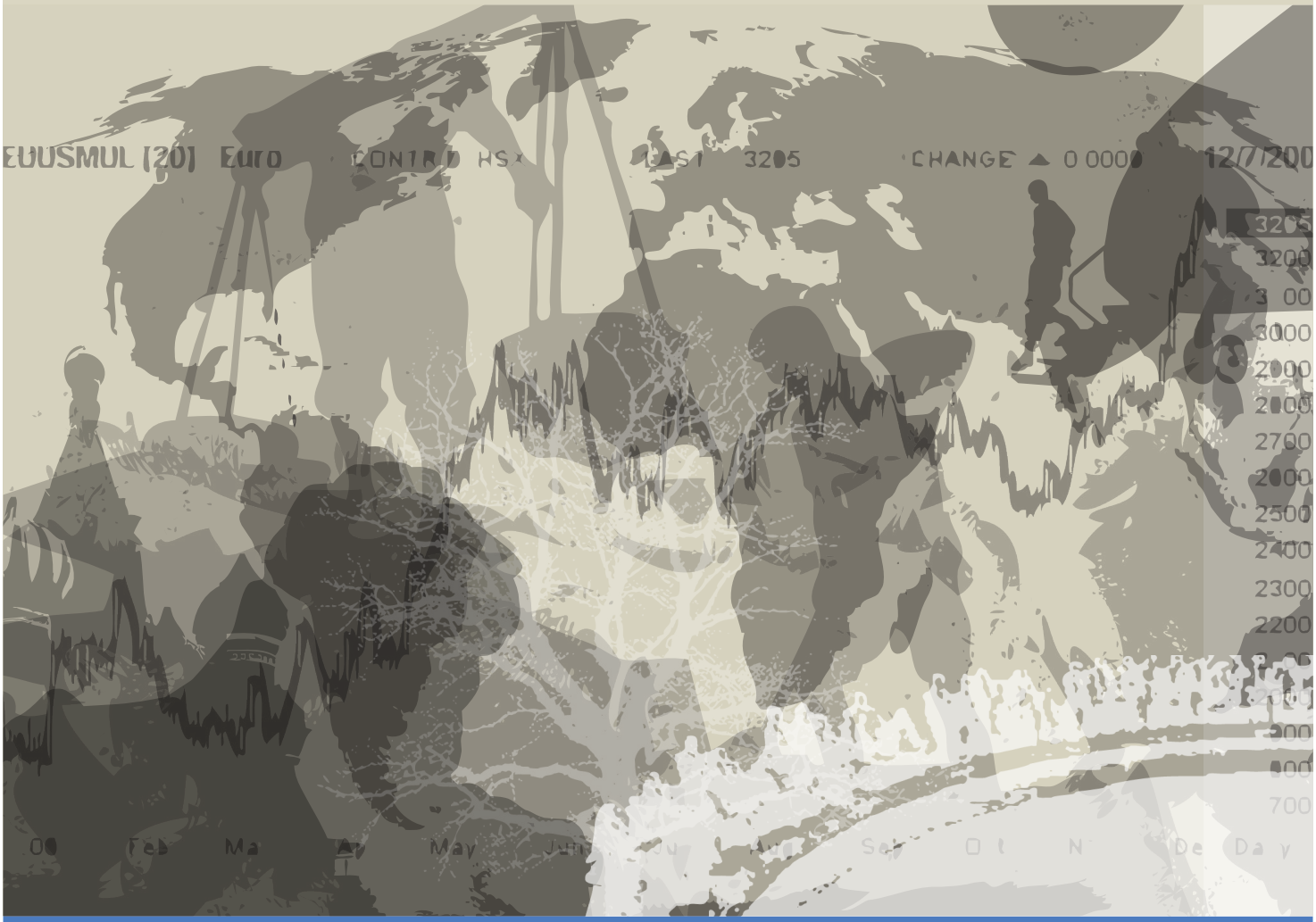
Multilateral cooperation in the area of climate-related security and development risks in Africa

Cedric de Coning & Florian Krampe



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Multilateral cooperation in the area of climate-related security and development risks in Africa

Background Paper for UN75 Sub-regional Meeting on Multilateral Cooperation to Address Climate Related Security and Development Risks in Africa 3-4 March 2020, Dakar, Senegal

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Executive Summary

Over the past decade the impact of climate change on people's everyday lives have become tangible. Its effects have contributed to loss of human life, it has undermined livelihoods, destroyed infrastructure, harmed national economies and stressed state budgets. Across the globe, its impacts have contributed to widened gender inequalities in different contexts (Park, 2019). Climate change is also transforming and redefining the global security and development landscape. The implications of climate change for security and development have become increasingly recognized within the United Nations (UN), African Union (AU) and Regional Economic Communities (REC).

As part of a special initiative by African and Nordic countries, a sub-regional meeting, involving the countries from West Africa and the Sahel, will be hosted by Norway and Senegal on 3 and 4 March 2020 in Dakar, on the topic of multilateral cooperation to address climate-related security and development risks in Africa. The purpose of the meeting is to deepen our collective understanding of the impact of climate-related human security and development risks, and how multilateral cooperation can contribute to preventing, mitigating and adapting to its effects. The aim of the meeting is to generate policy recommendations for enhanced multilateral cooperation in the area of climate-related security and development risks. These recommendations will be considered by the UN75 partner countries when they draft their joint declaration for the 75th United Nations (UN) General Assembly.

The aim of this background paper is to provide a synthesis of the existing research literature, policy guidance and recent developments related to multilateral cooperation in the area of conflict-related human security and development risks on the African continent, in order to inform and frame the discussion at the meeting in Dakar. The paper also offers a number of recommendations for strengthening and further enhancing the role of multilateral cooperation in the context of climate-related security and development risks, that can serve as an input for the discussions in Dakar.

The framing of climate change in the security and development discourse is undergoing an important change. In some spaces it is moving away from seeing climate change as a security 'threat,' and instead frames it as climate-related security and development 'risks'.

This approach, which is also the approach we take in this paper, emphasizes that climate change must not be seen as predominantly external in its cause, but rather that it exposes and compounds risks that are inherent in social-ecological systems, – especially in fragile and conflict-affected environments (Mobjörk et al., 2016; Born et.al, 2019). Climate-related security and development risks stem from the broad societal impacts of climate-related environmental change on social-ecological systems and expose and compound inherent societal vulnerabilities that may undermine development and raise the probability of individual, community, state, and international insecurity (Mobjörk et al., 2016; Krampe & Mobjörk, 2018). When an existing conflict situation is also affected by climate change it tends to prolong violent conflict, inhibit peacebuilding and increase the human costs of war (Krampe, 2019). Climate-related changes compound social, political, economic and environmental challenges, and the risks that ensue include that of violent conflict—which then further undermine the resilience of communities and societies to adapt to climate change.

According to the August 2019 report of the Intergovernmental Panel on Climate Change (IPCC), that focused on climate change and land, Africa is disproportionately affected. 20 of the fastest warming countries globally are in Africa. In a sample of 30 African countries, two-thirds or over 60% of them are warming faster than the globe, and the trend is projected to continue in the coming decades (IPCC, 2019). African countries are economically dependent on natural resource based-sectors, which account for roughly one-third of GDP and are a basis for food security, employment and development. As these sectors, most notably rain-fed agriculture, are likely acutely affected by climate fluctuations, populations that depend on them are highly vulnerable to climate change impacts.

This paper explores what we know about multilateral cooperation in the area of climate-related security and development risks by analysing developments in two African regions, namely the Lake Chad basin and the Sahel.

It is now internationally recognised that climate-related security risks are shaping the security and development context around Lake Chad and the Sahel. The governance deficits, under-development and socio-economic plight of the communities living in the Lake Chad basin and the Sahel have been further exacerbated by environmental stresses. Climate-related droughts exacerbate water shortages and related stresses, aggravate existing social vulnerabilities and impair the abilities of communities to adapt to changes in their social-ecological systems. The combined effect of climate and social drivers contributes to

increased tensions between pastoralists and farmers that all depend on the same dwindling resources. Changes in the climate contribute to water scarcity, which has an effect on food and livelihood insecurity. These livelihood stressors also make people, especially young men, more vulnerable to recruitment by armed groups. Climate change thus serves as a risk multiplier and has exacerbated conflict over scarce natural resources in the Lake Chad basin and the Sahel.

Climate change thus exacerbates pre-existing social vulnerabilities and adds additional stresses to social-ecological systems. In some contexts, this can result in increases in the frequency and intensity of inter-communal conflict, which in turn undermines the resilience of these communities to cope with and adapt to climate change. The impacts of climate change also inhibit economic development in the many conflict-affected countries and regions in which the majority of the population depends on agriculture for its livelihood. Extreme weather events in particular overwhelm already fragile institutions that are unable to cope with responding to the effects of either slow- or rapid-onset disasters. The impacts of climate change therefore tend to further erode the already weak capacity of states to prevent and manage conflict.

The experiences in the Lake Chad Basin and the Sahel, show that multilateral cooperation at the sub-regional level, amplified, echoed and supported at the AU and UN levels, can contribute significantly to preventing, mitigating and adapting to climate change, and managing climate-related security and development risks.

A number of best practices are emerging. The regional stabilization strategy in the Lake Chad basin connects and combines the networks, capabilities and resources of the local, sub-regional and multilateral governance mechanisms. It thus serves as an example of how such strategic frameworks can be used to connect key stakeholders both horizontally and vertically, as well as establish mechanisms and instruments that facilitate and institutionalize their roles in co-governing a shared social-ecological system. This type of multilateral cooperation enables local-global coordination that can address the cross-scale dynamics that emerge from connections between local and global-scale systemic processes associated with climate-change (Downing et al., 2019). It does so by mobilizing and leveraging political, technical and financial support on sub-regional, regional and international scales, and by focusing on locally coordinated context specific needs-driven initiatives.

The regional strategies for the Lake Chad basin and the Sahel are both examples of the need for comprehensive multidimensional and multidisciplinary approaches. Both strategies reflect that climate-related security and development risks require a system-wide prevention and mitigation strategy that integrates security, governance, development, socio-economic, environmental and humanitarian dimensions, amongst others. Whilst the security situation needs to be managed, sustainable solutions require that the emphasis needs to be on addressing the vulnerabilities of the affected communities by investing in strengthening their resilience and adaptive capabilities. These strategies aim to do so by improving local governance and services, and by investing in infrastructure, public works and other socio-economic recovery and job creating initiatives. Both strategies emphasize that these initiatives should have a focus on gender and youth and that they should be climate proof, i.e. sensitive to climate-related security and development risks.

Many multilateral institutions are underprepared for the fact that climate change is already affecting key elements of their mandates. To better prepare for and adequately respond to what are increasingly complex security and development contexts, peacebuilding, security and development agencies must become more climate-sensitive. This paper offers a number of recommendations which are briefly summarised here:

Strengthen early warning and response mechanisms by strengthening multilateral cooperation and integrating information and indicators of climate-related security risks

Cooperation between the African Union and RECs relating to climate related security risks need to be strengthened. There is a need to establish inter-departmental and cross-agency initiatives to collect and analyse data disaggregated by sex, age, ethnicity, disability and location. Further, assessment indicators and tools for climate-related security and development risks, vulnerabilities and resilience should be developed in close synchronization between AU and RECs. There is a need for increased investment in evidenced-based research that increases our knowledge and understanding of how to better manage the different and connected dimensions of climate-related security and development risks.

Increase multilateral cooperation, knowledge exchange and learning

The multifaceted effects of climate change on social, economic, security, development and political dynamics, across all local to global scales,

have important implications for how all multilateral actors currently function. If these institutions try to address these challenges from the perspective of their specialised mandates without investing in cross-scale and multi-dimensional analysis and coordination with other multilateral institutions, and other agencies within their own institutions, they will become increasingly ineffective and irrelevant. The paper offers a number of recommendations for further improving and scaling-up cooperation, knowledge sharing and learning.

Ensure gender is comprehensively mainstreamed across all scales of initiatives focusing on climate change and related security risks

The active participation of diverse groups of women in decision-making, in policies and programs focusing on climate change and related security and development risks, should be enabled on all levels. Structural barriers that may inhibit their meaningful participation should also be addressed. Climate change has the potential to exacerbate gender inequalities, and women in many parts of the world will experience unique and profound human security impacts, especially in settings also affected by insecurity or conflict. Investment and effort should be increased in research, policies and programs surrounding climate change, gender and peacebuilding.

Invest in prevention, mitigation and adaptive capacities

The deployment of security forces to contain and manage conflict, and humanitarian efforts to assist affected communities or displaced populations are often too little too late, yet costly in terms of political attention, bureaucratic organisation and financial resources. Sustainably managing conflict-related risks require proactive investments, and this paper offers a number of recommendations for scaling up our investment in prevention, mitigation and adaptive capacities.

Invest in conflict-and climate resilient agricultural employment specifically targeted to young people

Sustainable livelihoods are key for both peace- and climate resilience. Africa, being the youngest continent in the world, faces huge demographic shifts, urbanisation and growing youth unemployment. Possible ways to build social cohesion within and between communities include equitably securing land rights and providing access to justice and mechanisms for improving dialogue. By combining knowledge of peacebuilding, agriculture and climate science, innovative programmes undertaken to employ youth and bolster agricultural activity could benefit entire societies.

Regularly assess climate-related security and development risks

Given the complex effects of climate change, multilateral actors need to not only consider the local context, political economy and regional dimensions of a particular conflict system, but also factor in the climate-related security and development risks. There is a need for increased investment in developing context-specific knowledge on climate-related security and development risks as experienced by different demographics. One tool that would be of great use is a report that culminates in a major inter-governmental meeting where matters pertaining to climate change, natural resources and its risks to security are placed at the core.

Introduction

As part of a special initiative - *UN75: A renewed African-Nordic commitment to multilateral cooperation and a rules-based international order* - coordinated by African and Nordic Permanent Representatives to the United nations in New York, a sub-regional meeting, involving countries from West Africa and the Sahel, will be hosted by Norway and Senegal on 3 and 4 March 2020 in Dakar, on the topic of multilateral cooperation to address climate-related security and development risks in Africa. The purpose of the meeting is to deepen our collective understanding of the impact of climate-related human security and development risks, and how multilateral cooperation can contribute to preventing, mitigating and adapting to its effects. The aim of the meeting is to generate policy recommendations for enhanced multilateral cooperation in the area of climate-related security and development risks. These recommendations will be considered by the UN75 partner countries when they draft their joint declaration for the 75th United Nations (UN) General Assembly.

The aim of this background paper is to provide a synthesis of the existing research literature, policy guidance and recent developments related to multilateral cooperation in the area of conflict-related human security and development risks on the African continent, in order to inform and frame the discussion at the meeting in Dakar. The paper will discuss emerging lessons learned and best practices of regional and international multilateral cooperation in the context of climate-related security and development risks, climate adaptation and its potential implications for development, peace and stability in key regions affected by climate stressors, such as the Sahel and the Lake Chad Basin.

Over the past decade the impact of climate change on people's everyday lives have become tangible. Its effects have contributed to loss of human life, it has undermined livelihoods, destroyed infrastructure, harmed national economies and stressed state budgets. Across the globe, its impacts have contributed to widened gender inequalities in different contexts (Park, 2019). Climate change is also transforming and redefining the global security and development landscape. The implications of climate change for security and development has become increasingly recognized within the UN, African Union (AU) and Regional Economic Communities (REC).

The framing of climate change in the security and development discourse is undergoing an important change. The negative effects of climate change were in the past, and still is in some spaces, referred to as a security 'threat.' More recently, climate security is being reframed as climate-related security and development 'risks,' which stresses that climate change must not be seen as predominantly external in its cause, but rather exposes and compounds risks that are inherent in social-ecological systems, – especially in fragile and conflict-affected environments (Mobjörk et al., 2016; Born et.al, 2019; Bøås, 2017b). This is also the approach we are taking in this paper.

While responding to 'threats' is often based on the logic of zero-sum games, with defined winners and losers, the risk approach acknowledges the systemic interlinkages inherent in all social-ecological systems. Thus, understanding the effects of climate change on security and development as systemic risks recognizes interdependencies that are crucial for responding to the multifaceted character of the climate-related security and development risks posed to individuals, communities and societies.

Climate-related security and development risks stem from the broad societal impacts of climate-related environmental change on social-ecological systems and expose and compound inherent societal vulnerabilities that may undermine development and raise the probability of individual, community, state, and international insecurity (Mobjörk et al., 2016; Krampe & Mobjörk, 2018). The multifaceted and multidimensional character of climate-related security and development risks will have an impact on a broad range of governance and policy areas, including foreign, military, development, economy, social and environment policies on multiple scales of implementation (Krampe & Mobjörk, 2018).

When an existing conflict situation is also affected by climate change it tends to prolong violent conflict, inhibit peacebuilding and increase the human costs of war (Krampe, 2019). Climate-related changes compound pre-existing social, economic and political vulnerabilities, especially in regions in which agriculture is an important source of livelihoods. This results in climate-related security and development risks, which also means an increased likelihood of violent conflict. However, the impacts will be temporally and spatially diverse, with different effects for different demographics. Various social, political and economic contexts and processes are exacerbated by different climate-related changes, and each combination of factors are likely to generate its own unique dynamics (Krampe, 2019). Within these different contexts, groups of people who already experience inequalities or

discrimination based on their gender, age, ethnicity, disability, etc., may be among the most vulnerable to climatic changes and related risks, with insecurity compounding these challenges (Smith, 2020 forthcoming; Barnett & Adger, 2007; Rydstrom & Kinvall, 2019).

Climate-related human security and development risks

Across the globe, 57 percent of the countries facing the highest levels of climate exposure and political fragility risks are located in sub-Saharan Africa (see figure 1; USAID, 2018). However, while Africa is responsible for only four percent of global CO2 emissions (Ritchie, 2018), no continent is as affected by the double burden of climate change and political fragility, and consequently, multidimensional security risks.

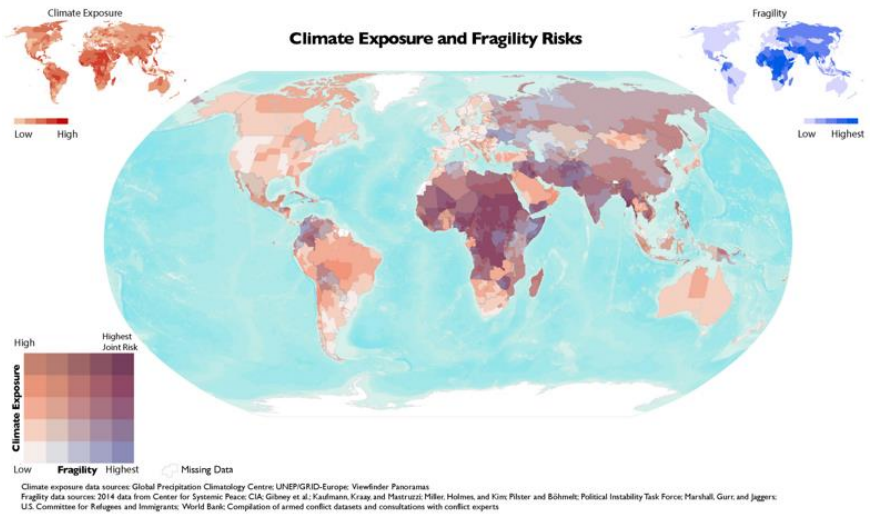


Figure 1: *Composite map overlaying climate exposure and political fragility. Source: USAID*

According to the August 2019 report of the Intergovernmental Panel on Climate Change (IPCC), that focused on climate change and land, Africa is disproportionately affected. 20 of the fastest warming countries globally are in Africa. Scientists estimate that over the past 100 years, temperatures across Africa have increased by an average of 0.5 – 2°C. In a sample of 30 African countries, two-thirds or over 60% of them are warming faster than the globe, and the trend is projected to continue in the coming decades (IPCC, 2019).

African countries are economically dependent on natural resource based-sectors, which account for roughly one-third of GDP and are a basis for food security, employment and development. As these sectors,

most notably rain-fed agriculture, are likely acutely affected by climate fluctuations, populations that depend on them are highly vulnerable to climate change impacts. Climate change will likely exacerbate water shortages and stresses, and negatively impact crop yields. These factors, coupled with an increase in migration due to climatic changes, sea level rise, and other challenges, will increase human security and development challenges, and the likelihood of tensions and conflict surrounding competition over progressively scarce resources (African Union, 2019).

Climate-related changes compound social, political, economic and environmental challenges, and the risks that ensue include that of violent conflict—which then further undermine the resilience of communities and societies to adapt to climate change. However, climate change is unlikely to lead to violent conflict in the absence of other social, political, and economic vulnerabilities, such as endemic poverty, weak and corrupt governance structures, protracted conflicts, demographic pressures and urbanisation. These problems, compounded by climate change, may overwhelm the capacity of some African states to achieve the goals of the AU Agenda 2063 and the 2030 Agenda, i.e. the Sustainable Development Goals.

The link between climate and conflicts

While wide-ranging impacts of climate-related environmental change have been acknowledged to cause multidimensional security and development risks, there is a debate on the link between climate change and violent conflict. It may seem intuitive to expect that climate change-induced scarcity of water or food, or other fundamental resources could cause violent conflict. However, a universal relationship has been hard to prove (Salehyan, 2008; Theisen et.al, 2013; see also Scheffran et al., 2012; Gemenne et al., 2014; Theisen, 2017; Zografos et al., 2014). Some researchers have found that climate change can increase the risk of violent conflict (Hendrix & Glaser, 2007; Burke et al., 2009; Hsiang, Burke & Miguel, 2013; Mach et al., 2019). Others argue that there is little evidence supporting such claims (see Urdal, 2005; Raleigh & Urdal, 2007; Buhaug, 2010; Selby et al., 2019).

Many academic studies – as well as highly charged political discussions about climate change and its diverse impacts and effects – question whether climate change impacts directly cause conflict (Randall, 2017; Selby et al., 2017). Research in this area often employs statistical inquiries spanning many years and many countries to verify or refute causal connections between dependent and independent

variables. Other scholars have stressed that socio-economic factors and state capacity are important mitigating factors between climate and conflict (Mach et al., 2019), which points at the importance of governance in responding and preventing climate-related security risks.

However, there is a rich body of especially qualitative research that shows that climate change increases insecurities, including the risk of violent conflict, and significantly alters the dynamics of existing conflicts through different indirect pathways (Mobjörk & van Baalen, 2017). Supporting this, Koubi (2019, p.343) finds that climate change influences 'conflict in fertile grounds: in regions dependent on agriculture and in combination and interaction with other socioeconomic and political factors such as a low level of economic development and political marginalization'.

This stream of research argues that climate change should not be understood as a main cause of violent conflict, rather it constitutes one relevant factor among several others that affects its onset and dynamics (see e.g. Hendrix, 2017; Smith & Krampe, 2019). This work asserts that the simultaneous influence of anthropogenic climate change and climate variability generated by other sources on multifaceted insecurities, comes through interactions with other features in the social, economic, and political landscape.

Interlinkages between climate change and inter-communal violence

Climate change may increase the risk of inter-communal disputes and violent conflict. An increase in the scarcity of shared natural resources is often associated with a correlating risk of conflicts between herding and farming communities. Global warming may increase uncertainties in the availability of water and land for farming and grazing, and may thus effect herding livestock and other agriculturally dependent livelihoods. However, it is the local socioeconomic and political contexts that will affect the onset, effects and responses to inter-communal disputes and that will determine whether such conflicts become violent or not (Rüttinger et al., 2015; Smith & Krampe, 2019).

There is a rich body of research on the impacts of climate change on local communities. For instance, large N studies for sub-Sharan Africa suggest that rainfall levels which significantly and negatively deviate from the historical norm are associated with a higher risk of communal conflict. This seems especially true in regions inhabited by politically excluded ethno-political groups (Fjelde & von Uexkull, 2012). This supports the argument raised in studies that climate impacts are strongly affected by local social and political dynamics (see also Olaniyan et.al, 2015; Olaniyan & Okeke-Uzodike, 2015). Similarly,

research has also suggested that climate-related disasters like droughts or flooding in ethnically fractionalized countries may exacerbate the risk of armed conflict (Schleussner et.al, 2016). The role of alternative coping mechanisms and resource access appears vital in mitigating inter-communal conflicts (Fjelde & von Uexkull, 2012; Döring, 2020). For instance, research demonstrates that regions with more difficult access to groundwater witness higher levels of communal conflict (Döring, 2020). As Mobjörk et al. show in a recent assessment of the research literature, the increased frequency of drought in East Africa has pushed nomadic herder communities from their traditional trekking routes, which raises the need to negotiate access to resources in new localities. But, 'when their routes change, conflicts often arise over water and pasture with groups already present in the area—conflicts that sometimes turn violent' (Mobjörk & van Baalen, 2016, p.2).

In Southwestern Nigeria, lack of rain and increasing temperatures have been linked to forced migration of herders searching grazing areas. This has resulted in violent conflicts with local communities, which have increased in both number and intensity since the late 1990s. However, long-standing social, economic and political factors contribute to these conflicts; Olaniyan & Okeke-Uzodike (2015, p.37) write that 'climate change alone does not result in conflict until enmeshed with factors such as intolerance, economic competition, insensitivity, ethnicity, and poor state response'. Akinyemi and Olaniyan's (2017) research on migration and conflicts between herders and farmers in Nigeria suggests that while climate change is not a direct cause of violence, it is a key factor causing migration of pastoralists into farmland.

Case studies on conflicts between herders and farmers in the Sahel region, with notable focus on Mali, further demonstrate how context and history shape this violence. This research emphasizes the role of political and historical factors, like state policies at the root of these conflicts because of long standing marginalization of customary pastoral leaders (Benjaminsen, 2009; Benjaminsen & Boucar, 2009; Benjaminsen et al., 2012).

Finally, it should also be recognized that, in addition to community-level security impacts, climate-change related conflicts between herders and farmers have gendered human security implications. For example, in Turkana, in north-western Kenya, these conflicts can generate specific vulnerabilities for women in pastoral communities due to normative gender relations and expectations. If women lose their husbands in these conflicts, they would become the head of their household. However, women traditionally have poor customary rights to land, livestock and wells, which negatively impacts their security and

wellbeing in a context affected by violence and climate change (Omolo, 2010).

Interlinkages between climate change and displacement

The impacts of climate change and related environmental stress within Africa influence migration and displacement, deteriorating conditions for human security for migrants as well as an increased potential for related violence (Brown & Crawford, 2009). For example, in Somalia, rising temperatures and greater frequency of droughts and floods are driving displacement. For instance, the 2018 flash floods in Somalia displaced nearly 215 000 people. Similarly, a prolonged drought affected 6.7 million people and displaced 926 000 people between November 2016 and September 2017. Climate impacts have contributed to an increase in the number of IDPs that moved to urban areas, such as Mogadishu, and who are living in improvised camps (Eklöw & Krampe, 2019).

Within the Sahel region, migration due to traditional pastoralist lifestyles has been relatively consistent. However extreme changes in precipitation patterns in 2010 and 2011 - alternate increases in flooding and droughts - left approximately 18 million people food insecure, and 1 million children at risk of starvation. It has been suggested that since the 1990s roughly 30% of households in the Sahel area of Burkina Faso have moved away due to impacts on agriculturally-dependent livelihoods (Thomas, 2013).

Temporary migration in the Sahel has also been observed as an adaptive response to supplement income during periods of droughts. The Sahel experienced an extended period of droughts between 1970 and 1993, and the frequency and intensity of the events grew throughout this timeframe (Essoungou, 2013). Families traditionally sent younger members away in search of temporary wage labour after harvests, but their ability to do so would be constrained by the success of the harvest. A good harvest would provide the resources to send family members farther away, possibly to Europe, to look for work. However, a poor harvest would result in family members staying closer to home (Brown, 2008).

The likelihood of violence related to environmental migration is determined by context. Migration due to environmental change may exacerbate the potential of conflict, and sociopolitical and economic factors likely influence both migration and related violence (Freeman, 2017). Research on conflict and displacement in East Africa over the past five decades finds that while climate variations did not cause conflict and migration, serious droughts factored into the transnational displacement of refugees. Within contexts that are economically, geo-

politically, and socially fragile, climate change-induced displacement may aggravate already unstable situations (Owain & Maslin, 2018).

In addition to droughts, natural disasters like cyclones have caused mass-displacement within regions in Africa. In 2000, Cyclone Eline hit Southern Africa, affecting approximately 5 million people across the region. The cyclone led to the displacement of approximately 250 000 and the death of over 700 people in Mozambique. Across Botswana, South Africa, Zimbabwe, Zambia and Madagascar, roughly 290 000 more people were displaced due to the cyclone (Holloway et.al, 2013). In 2015, Cyclone Chedza landed in the region, which led to the displacement of an estimated 21,475 people in Madagascar, 50,000 in Mozambique, and 230,000 people in Malawi. In 2019, Cyclone Idai made landfall in Southern Africa, affecting close to 2.2 million people across Malawi, Mozambique and Zimbabwe (World Vision, 2019). Mozambique was particularly impacted; over 1.8 million people were affected, more than 600 people were killed, approximately 1,600 were injured, many others displaced, and the cyclone damaged roughly $773 million of agriculture, buildings, and infrastructure (UN News, 2019; UNOCHAa,2019).

Women and girls are generally at a higher risk of sexual and gender-based violence (SGBV) within IDP camps, but it should be noted that men and boys can also be impacted (Abebe, 2014; Krampe & Eklöw, 2019). Research on migration, gender and climate change in East Africa discusses how, in Ethiopia, female migrants from rural areas may be at particular risk of exploitation due to comparative lack of education to men and subsequent employment opportunities. Additionally, while men in pastoralist communities in Ethiopia and Somalia likely have to migrate increasingly far to search for water or grazing land due to drought, it is their eldest son or male relative who will make decisions surrounding economic resources. The female partners who remain at home may face a higher risk of being expelled from their families and communities (Abebe, 2014).

Interlinkages between climate change, organized crime and violent extremism

Climate change impacts may also indirectly exacerbate organized crime as well as violent extremism and insurgencies related to long-standing center-periphery tensions, and their multidimensional security impacts (Bøås, 2015). For example, the impacts of climate change on the Lake Chad and subsequent scarcity experienced by communities economically dependent on the lake's resources, may have contributed to the rise of the extremist group Boko Haram in northeastern Nigeria. Conflict due to competition over scarce resources between local groups

and potential displacement due to climate change impacts, coupled with poor state response, may have contributed to growing support for the extremist group (Osumah, 2013; Freeman, 2017).

In Somalia, IDP camps that house people displaced by droughts have become hotspots for criminal activities such as human trafficking and child exploitation, and a recruitment ground for al-Shabab (Krampe & Eklöw, 2019). However, other factors, including education levels, economic frustration, grievances towards the state, and ethnic and religious ties may influence individuals' susceptibilities towards recruitment by extremist groups (UNDP, 2017).

In the West African Sahel region, climate change may also contribute to strengthened narratives and leverage of extremist groups. The population in the region is young and growing, and livelihoods in the region are significantly dependent on natural resources that would be affected by climate change (Rupesinghe and Bøås, 2019; Bøås, Osland and Erstad, 2019). If governments fail to address the impacts that climate change may have on local livelihoods, terrorist and criminal organizations may try to insert themselves in this space (Bøås, 2017a). In turn, this would further undermine the ability of governments and communities to address climate change impacts and the compounding effects of violence and instability (Crawford, 2015). Al Qaeda in the Islamic Maghreb (AQIM) and Boko Haram have progressively gained traction in the region since the early 2000s (Cooke & Sanderson, 2016). Research indicates that historical and socio-political variables affect conflicts and instability in the region, which are in turn potentially aggravated by increasingly frequent and severe weather events (ECC, 2019). Extremist groups may gain support both by providing food, and addressing local conflicts over resource access – specifically access to water and land – in places where the state's capacity and local trust in official governance systems are limited (ECC, 2019). Similarly, the expansion and interest of the Islamic State (IS) and affiliate groups in the region should be a significant concern based on their prior history of controlling and weaponising water and other agricultural resources to promote recruitment in Iraq (Middendorp & Bergema, 2019).

Research in Somalia further suggests how the compounding effects of climate change and conflict may enable organized crime, and exploitation by criminal and political elites. Criminal activity has increased significantly in recent years, especially in Somaliland and Puntland. Organized crime is facilitated by weak governance and corruption. Other enabling factors include diminished livelihood options due to warming temperatures and extreme weather events. Additionally, some people whose livelihoods have been affected and

who have remained on their land have been pushed into illegal, unconventional economic activities that are often linked to larger illicit networks. Illegal trade and a thriving shadow economy are a logical coping strategy for people after three decades of civil war. Nevertheless, these activities are weakening traditional forms of governance, and strengthening alternative, de facto governance systems such as that of al-Shabab. In other cases in Somalia, armed groups and political factions exploit grievances of the population that stem from weather-related losses and experiences of conflict. Resource scarcity due to extreme weather events and the loss of homes or family members may play a central role in generating grievances that make individuals more susceptible to certain political agendas. Local political elites take advantage of these grievances and strengthen their own agendas (Eklöw & Krampe, 2019).

Strengthening resilience of societies and states to manage these risks and vulnerabilities

The increasing impacts of climate change correlate with a need to improve resilience of societies and states to manage related risks and vulnerabilities. As discussed above, these risks vary depending on region, geographic area, scale, and demographic. Measures to address them will correspondingly be different. Various sectors within different regions in Africa have been identified as important for improved adaptation and resilience to climate change and related risks across the continent. Adaptation on multiple scales within different sectors - including pastoralism and agriculture, meteorological forecasting, coastal zone protection, and freshwater access – would implicitly assist in preventing aspects of the security risks discussed in the prior section.

In Western Africa, pastoralism, coastal regions, health, meteorological services, and agriculture are examples of sectors that could be strengthened to improve resiliency to climate-related impacts. Potential measures to reduce vulnerabilities in these respective areas include improving livestock management and initiating different crops for livestock fodder in pastoralist areas; constructing infrastructure in coastal zones to protect against flooding; improving access to water and sanitation to protect against potential health impacts; strengthening national and regional systems to improve forecasting and early warning systems; and diversifying agriculture and mapping cultivation times to rainfall patterns (UNDPa, 2011). In Eastern Africa, pastoralism and agriculture were also identified as a priority for improved adaptation and resiliency to climate change impacts, with potential responses including the use of crop-insurance systems and improving the management of rangeland (UNDPb, 2011). The respective improvement of coastal zone

and agricultural resilience were determined as important in the Northern and Southern regions of Africa as well, with the construction of sea walls and wetlands and the identification of livestock routes for pastoralists discussed as potential measures to improve these areas in the North (UNDPc, 2011). In the South, increasing research and data collection on sea level rise in coastal zones, and improving irrigation and early warning systems for drought are two potential avenues to mitigate vulnerability in these areas (UNDPd, 2011).

It is also crucial to ensure that state and community scale measures aimed at adapting to climate-related environmental change, as well as preventing related security risks are inclusive. They must integrate the knowledge and participation of different demographics to ensure initiatives are both context-appropriate and comprehensively effective. While women may experience disproportionate and different human security risks related to climate change due to social expectations related to their role providing food, water and energy in the home, and economic dependence on natural resources, these roles also provide invaluable and important knowledge in relation to adapting to and mitigating the effects of climate change (UNDP, 2020; Nabalamba et al., 2011). For example, in the Sahel, women account for over 40% of agricultural labor, thus crucially helping to strengthen individual and community food security and enhance nutrition. However, in areas that experience significant levels of undernourishment, women involved in agricultural often have substantially less access to land, financing, and information. These circumstances both increase risks to their own human security, as well as that of their household (UNFCC, 2017). They also call for a need to assure women's equal access and rights to natural, financial and other resources needed to proactively build resilience to the effects of climate change (UNDP, 2020; UNFCC, 2017). Similarly, research comparing two Disaster Risk Reduction (DRR) initiatives in a district in Zambia and a district in Zimbabwe found that the DRR work in Zambia, which mainstreamed gender, was ultimately more sustainable and effective at building resilience for women and their communities than the initiative in Zimbabwe, which did not (Chineka et.al, 2019).

Additionally, research on droughts experienced in the Sahel during the 1970s and 1980s discusses a history of local-scale adaptation measures to different climatic and developmental circumstances, and argues for the need for adaptation measures to be built around locally defined needs and aims to be most effective for local farming and herding communities (Mortimore, 2010). If mainstream climate observations work with indigenous knowledge, instead of simply from the top-down, adaptation and resilience efforts would be more valuable in different local communities (IPCC, 2018). The active participation of

diverse demographics in decision making surrounding climate adaptation and mitigation would improve individual and community resilience.

Multilateral cooperation in the area of climate-related security and development risks in Africa

Introduction

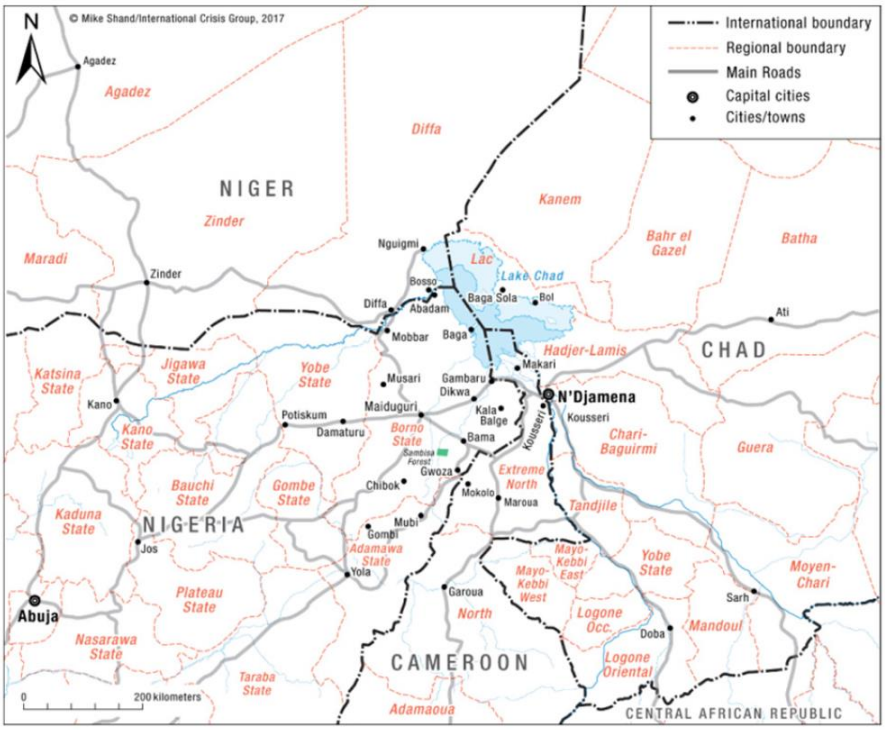
In this section we explore what we know about multilateral cooperation in the area of climate-related security and development risks by analysing developments in two African regions, namely the Lake Chad basin and the Sahel. In each case we will introduce the context, highlight what is known about the effect of climate change in this region, consider what has been done in the area of multilateral cooperation in and for the region to date, and identify lessons or best practices that can potentially be of value in other contexts. In this paper, we're looking at multilateral cooperation, that is, cooperation of more than two states, both in its institutionalized form (regional and subregional organisations, such as the AU and ECOWAS) and ad hoc arrangements between states (e.g. the G5 Sahel Force and MTNJTF). Our aim is to establish how multilateral cooperation can contribute to preventing and mitigating climate-related security and development risks based on the evidence generated by the efforts undertaken to date in these two regions.

The Lake Chad Basin

> *"Multiple stressors converge around Lake Chad: unemployment, limited government presence, poverty and conflict interact with population growth and climate change, with heightened competition for resources exacerbating tensions between pastoralists, farmers and fishers. This impacts upon those whose livelihoods depend on Lake Chad and is threatening peace and security, compounding poverty and unemployment, as well as fueling intra-regional migration" (Lake Chad Climate Fragility Risk Assessment, 2018).*

Lake Chad is an oasis in the arid Sahel region comprising Cameroon's Far North Region, Chad's Lac Region, Niger's Diffa Region, and northeastern Nigeria's Adamawa, Borno, and Yobe states. Three main drainage systems originating in the Central African Republic, Nigeria

and Cameroon supply its water. The Lake has shrunk 90 percent compared to its size in the early 1960s, when it was at its highest levels in the 20th century (Okpara et al., 2015). The main challenge facing people dependent on the lake is the increased fluctuation and uncertainty (Lake Chad Climate Fragility Risk Assessment, 2018). The size, shape and depth of the Lake is constantly changing in response to variations in temperatures, winds, evaporation rates, irrigation practises and rainfall (Zhu et.al, 2019; Vivekananda et al., 2019).



Source: International Crisis Group, 2017b

Security, development and humanitarian context

Across the Lake Chad basin region, violent conflict, climate-related conditions such as droughts, and governance neglect have combined to create one of the world's most under-developed regions. These compounding factors have caused the Lake Chad basin region to become one of the world's worst humanitarian crises over the past decade (UN Security Council, 2017a). Of the approximately 17.4 million people living in the conflict-affected areas of Lake Chad, approximately 10 million people are in need of humanitarian assistance. Approximately 2.5 million people remain internally displaced throughout the Lake

Chad Basin, with the majority—an estimated 2 million people—residing in northern Nigeria. Acute food insecurity persists throughout the Lake Chad basin with approximately 3.6 million people at crisis and emergency levels. Approximately 500,000 children suffer from severe malnutrition. Continued insecurity is hampering the resumption of normal life, leaving conflict-affected families dependent on humanitarian assistance for survival (UNOCHAb, 2019; USAID, 2019). The multiple security risks faced within the Lake Chad region must be understood as interlinked and affecting each other (Vivekananda & Born, 2018).

In 2015, the Global Terrorism Index regarded Boko Haram as the world's deadliest terrorist group (Global Terrorism Index, 2015). They estimated that more than 37,500 people died since 2011 in violent conflict-related incidents in the Lake Chad region, of which approximately 31,000 are attributed to Boko Haram. Whilst 2017 was the deadliest year, the number of deaths associated with Boko Haram have declined considerably in 2018 and 2019 (ACLED, 2019; Council of Foreign Relations Global Conflict Tracker, 2019). In response, a complex security dynamic has developed in the region. In addition to Boko Haram, the Islamic State of Iraq and Syria-West Africa (ISIS-WA) and several armed vigilante groups all operate in the Lake Chad basin (Nagarajan, 2018).

The current complex humanitarian emergency was triggered by the violence perpetrated by Boko Haram and other armed groups since 2009, but the causes of the conflict and under-development have deep roots in inequality, marginalization and exclusion of the communities in the region. The Lake Chad basin is on the periphery of all the states in the region, and this has resulted in decades of governance neglect. The region is characterized by weak governance, under-development, poor infrastructure, high levels of poverty, rising inequality, dismay at corruption among the ruling elite low levels of education and low levels of national integration. These factors have generated a lack of trust between communities and their governments over many generations (LCBC & AU, 2018; Nagarajan, 2018). This has set the scene for intensifying religious fundamentalism and the rise of armed opposition groups (Vivekananda et al., 2019).

Climate change and the Lake Chad Basin

It is now internationally recognised that climate-related security risks are shaping the security and development context around Lake Chad. For example, in 2017 and 2018 the UN Security Council recognised that climate-related security risks are shaping the peace and security landscape in the Lake Chad region (Lake Chad Climate Fragility Risk

Assessment, 2018). The governance deficit, under-development and socio-economic plight of the communities living in the Lake Chad basin have been further exacerbated by environmental stresses. Climate-related droughts aggravated existing social vulnerabilities and impaired the abilities of communities to adapt to changes in their social-ecological systems.

There is a tendency to draw a direct line of causation between the reduction in the size of the lake and current violent conflict and humanitarian emergency. Recent research has found, however, that the lake is in constant flux and that it has grown and shrunk intra- and inter-annually, and that it is actually currently expanding again (Vivekananda et al., 2019). It would appear rather that rising temperatures and the unpredictable rainfall patterns, affected by climate change, are having the more immediate impact on the communities living in the vicinity of the lake (Vivekananda, 2018; Okpara et al., 2015). Changes in the climate contribute to water scarcity, which has an effect on food and livelihood insecurity.

Human activity and social factors, including significant population growth, also had effects on the lake and its related social-ecological system. For instance, Coe and Foley (2001) estimate that human water use, including irrigation, accounts for 50% of the decrease in the size of the lake since the 1960s. While climate change can impact the availability and distribution of water resources, demographic and socioeconomic variables can become 'the principal factors affecting quality and demand' (Okpara et al., 2015, p. 317). The combined effect of these climate and social drivers contribute to increased tensions between pastoralist, farmers and fishers that all depend on the same dwindling resources. These livelihood stressors also make people, especially young men, more vulnerable to recruitment by armed groups such as Boko Haram. Further disruptions to this fragile social-ecological system will have significant impacts on the security and development conditions in this region (Lake Chad Climate Fragility Risk Assessment, 2018).

Climate change thus serves as a risk multiplier and has exacerbated conflict over scarce natural resources in the Lake Chad basin. At the same time, violent conflict disrupts and breaks down social cohesion – among families, between generations, among ethnic groups and between displaced and host communities - and undermines the resilience of the communities in adapting to climate change (Vivekananda et al., 2019). These factors, coupled with largescale displacement resulting from both climate change and conflict, further undermine the adaptive capacity of the effected communities

(Vivekananda et al., 2019). The Lake Chad Climate Fragility Risk Assessment (September 2018) identified four risks for security and development over the coming period: amplified livelihood insecurity and social tensions; increased vulnerability to climate risks as conflict and fragility diminish coping capacities; intensified and increased incidences of natural resource conflicts, and increased recruitment into armed groups caused by growing livelihood insecurity.

Multilateral Cooperation in the Lake Chad Basin

The Lake Chad Basin Commission (LCBC),[1] with the support of the AU, developed a Regional Strategy for the Stabilization, Recovery and Resilience of the Boko Haram Affected areas of the Lake Chad Basin to address the multidimensional security challenges in the area. This strategy was adopted 2018 by the Commission and the Peace and Security Council of the AU. The decision to develop a regional stabilization strategy was born out of a recognition that a multilateral response is required "because neither causes nor effects of the crisis respect national borders" (LCBC & AU, 2018, p.11).

It also signals that the affected countries and the AU recognize that the problems facing this region cannot be solved through military or security means alone. When the Boko Haram insurgency started to have a significant effect on the region around 2009, it was at first understood as a security problem. In response, the member states of the LCBC decided to broaden the mandate of the Multi-National Joint Task Force (MNJTF) in 2012 to fight Boko Haram. The AU supported the MNJTF politically as well as technically, with planning and other expertise.

The MNJTF is a rare example of a multinational formation with a regional mandate. In the past, most multinational forces operated within the borders of a specific state. In the African context a similar formation was established in the northern Great Lakes region to counter the Lord's Resistance Army, and in the Sahel region the G5 Sahel force (see below) was established as a regional counter-terror formation. However, over time as analysis deepened, the Member States of the Lake Chad region, the AU and their international partners, including the European Union (EU) and the UN system, started to realize that the challenges facing the Lake Chad Basin social-ecological system needed a comprehensive,

[1] The Lake Chad Basin Commission (LCBC) was founded in 1964 by the four riparian states of the lake: Cameroon, Chad, Niger and Nigeria. There are now six countries in the LCBC, with the Central African Republic joining in 1996 and Libya in 2008. The Sudan, Egypt, the Republic of Congo and the Democratic Republic of the Congo have observer status. The Commission has its headquarters in N'Djamena, Chad. See: http://www.cblt.org/en

system-wide strategy that links new and existing security, development, governance and other related initiatives.

The regional stabilization strategy is structured around nine strategic pillars, with short, medium and long-term initiatives across Cameroon, Chad, Niger and Nigeria. These include, development of Territorial Action Plans for the eight worst affected areas; the establishment of a MNJTF Civil Military Cooperation Cell to support and coordinate matters around humanitarian access, cross border security, and the safe return of refugees; reinforcement of the Lake Chad Basin Governor's Forum; a regional civil society platform; and a Task Force of implementing partners to bolster technical coordination of pillars of intervention. The implementation of the regional stabilization strategy is coordinated by the LCBC, with support from the AU. The UN Development Programme (UNDP) and other partners, coordinated in the Task Force of implementing partners, support the implementation of the strategy with both technical and financial backing.

Best practices and lessons identified

The regional stabilization strategy connects and combines the networks, capabilities and resources of the local, sub-regional and multilateral governance mechanisms. It combines multilateral cooperation at the Lake Chad basin sub-regional level, AU continental level, and at the UN system and international partner levels, with local community and civil society engagement, as well as the local government level via the Governor's Forum. It is thus an example of how such frameworks can be developed to create linkages between local and sub-regional horizontal coordination mechanisms, as well as sub-regional to international vertical coordination mechanisms. In this way, it can mobilize and leverage political, technical and financial support on sub-regional, regional and international scales, and focus it on locally coordinated context specific needs-driven initiatives. Creating this kind of mechanisms that enable local-global prevention, mitigation and adaptation is a desirable practice, as it can address cross-scale dynamics that emerge from connections between local and global-scale processes (Downing et al., 2019).

The regional strategy is an example of a comprehensive multidimensional and multidisciplinary approach. It recognizes that the challenges facing the Lake Chad basin social-ecological system require a system-wide response that integrates security, governance, development, socio-economic and humanitarian dimensions, amongst others. It also recognizes that while the security situation needs due attention, the main emphasis needs to be on addressing the vulnerabilities of the Lake Chad basin communities by investing in

strengthening their resilience and adaptive capabilities. The strategy aims to do so by improving governance and services, and by investing in infrastructure, public works and other socio-economic recovery and job creating initiatives. It emphasizes that these initiatives should have a focus on gender and youth and that they should be climate proof, i.e. sensitive to climate-related security and development risks.

Some of these aspects have also been identified in the 2015 Lake Chad Development and Climate Resilience Action Plan and in the 2017 Oslo Humanitarian Summit on Nigeria and the Lake Chad region, but the regional strategy gives these initiatives new impetus with its emphasis on linking up local and global stakeholders and the security-development nexus. The regional strategy also recognizes that any attempt to influence the behavior of a social-ecological system will have unintended consequences, and that its effects need to be monitored so that any negative consequences can be identified as early as possible, addressed and the strategy can be adapted (Aoi, de Coning & Thakur, 2007).

The conflict in the Lake Chad Basin has resulted in two innovative adaptations in the African peace and security context. The African Peace and Security Architecture (APSA) provides for a model where the RECs form the building blocks both locally and operationally, with the AU providing political direction, coordination and support. The Boko Haram conflict challenged this model, as it did not fit neatly within the sub-regional area of responsibility of one REC. Rather it crossed the borders of both the Economic Community of West African States (ECOWAS) and the Economic Community of Central African States (ECCAS) and it is part of the larger Sahel region. However, the immediate sub-region did have an existing multilateral cooperation forum in the form of the LCBC. Instead of creating a new multilateral mechanism to coordinate the sub-regional response to Boko Haram. It was decided to make use of the existing LCBC and to adapt the existing MNJTF arrangement so that it could become the mechanism through which a regional counter-insurgency and counter-terrorism formation could be constituted and coordinated.

This kind of ad-hoc regional coalition is rare in that the forces operate mostly within their own borders, but occasionally cross their borders in hot pursuit or participate in joint operations (de Coning, Gelot & Karlsrud, 2016). It is more common for sub-regions to enter into mutual defense pacts or arrangements, or for regional organizations to deploy multinational operations into one specific country, as the AU did in Somalia. The decision to make use of the existing LCBC and MNJTF arrangements is an example of how adapting existing mechanisms can

reduce the transaction costs associated with establishing new mechanisms. Furthermore, it can help a new initiative make use of existing networks, governance mechanisms e.g. the Lake Chad Basin Ministerial Council, and consultation forums such as the Governor's forum, whilst at the same time adding new mechanisms as required by the new initiative, such as the MNJTF headquarters in N'Djamena and the new civil-society forum.

At the same time, such an existing mechanism will need to be adapted to be able to take on its new expanded role, without neglecting its original mandate, if that is still relevant. Providing such a new arrangement with broader political recognition, support and authority is also critically important, as was achieved in this case through the authorization and endorsement of the Peace and Security Council of the AU of first the MNJTF and later the regional stabilization strategy, as well UN Security Council recognition and support. The decision to adapt the existing LCBC instead of creating a new mechanism also enabled the process of analysis and reflection that resulted in the decision to complement the securitized response to Boko Haram with a comprehensive regional stabilization strategy.

The Sahel

> *"For years, the improvements and growth witnessed in the Sahel have been overshadowed by complex and multi-dimensional challenges. These are characterized by mutually reinforcing factors of vulnerability, instability and insecurity. These risks are intensified by political and governance crises, unequal distribution of wealth and lack of access to resources, opportunities and basic services. The demographic bulge, combined with climate change, could worsen a phenomenon of violence and conflict, and lead to displacement and migration" (UN, 2018, p. 8).*

The Sahel region is a 5000 km expanse of land under the Sahara Desert, encompassing ten countries between the Atlantic Coast and the Red Sea. Four of the countries border Lake Chad; these states are Cameroon, Nigeria, Niger and Chad. The other six are Burkina Faso, Gambia, Guinea, Mauritania, Senegal and Mali. The region is significantly impacted by climate change, with droughts occurring every other year instead of the past norm of once every decade, and temperatures in the region rising 1.5 times faster than the average across

the globe. The population is young and growing; more than 64% percent of the region's population is under the age of 25, and the population is projected to reach approximately 340 million by 2050 (UNDP, 2019). These factors, in addition to poverty and inequality, limited access to basic services, and limited government capacity create a complex security context, which is affected by violent extremism, criminality and terrorism (UN, 2018).

Security, development, and humanitarian context

The Sahel region, affected by climate change and conflict, is considered to be one of the most 'fragile environments' in Africa (IFRC, 2014). In 2012 drought affected approximately 18 million people. By 2014, over 23 million people were affected by food insecurity (IFRC, 2014). In 2018, 24 million people required humanitarian assistance due to the effects of climate change and conflict. 32 million people were affected by food insecurity, with approximately 11 million severely insecure and 4.7 children struggling with malnourishment. Over 5 million refugees and IDPs have been forcibly displaced. Rainfall shortages, drought, flood, land degradation and increasing violence have exacerbated humanitarian needs. Pastoralists were forced to migrate early due to drought, and significant areas of pastoral and agro-pastoral land were additionally affected by lack of water. These circumstances have thrown the livelihoods of approximately 2.5 million pastoralist and agro-pastoralists into crisis. Parts of Burkina Faso, Chad, Senegal and Mali, as well as Mauritania have been among the worst affected in the Sahel; inadequate rains in 2017 led to severe shortages of pasture and water. As a result, pastoralists, who account for 30% of the Sahel's population, commenced migration earlier (UNOCHA, 2018).

Violence and increasing insecurity in the region have also forced displacement and negatively impacted development and human security. Mali and the Lake Chad Basin are significant hotspots of violence in the region. In Mali, conflict affects significant areas of the country. As of 2018, around 5.1 million people – around 27% of the population of the entire country – reside in insecure areas, and roughly 59,000 have been internally displaced as of 2018. Around one in five Malians suffer from food insecurity. The violence also affects neighboring regions. In areas of Burkina Faso and Niger that border Mali, armed attacks have forcibly displaced thousands of people, and the two countries respectively host over 20,000 and approximately 56,000 refugees from Mali. In Burkina Faso, violence and insecurity forced 141 schools to close in 2017, impacting thousands of school children (UNOCHA, 2018). By 2019, increasing levels of violence further exacerbated the humanitarian emergency in the region, and continued to force displacement. Since 2015, violent attacks relating to extremist

groups have doubled every year, with around 700 attacks in 2019. Related fatalities have correspondingly increased (Le Roux, 2019). Within the past year, displacement increased by a factor of five in Burkina Faso, Mali and western Niger, and one million people in the region were forced to flee from where they lived due to conflict. Some 4.2 million people across the region are currently displaced. The violence, in conjunction with the effects of climate change, negatively impacts livelihoods and compounds the effects of food insecurity, epidemics and malnutrition experienced in communities throughout the countries in the region. Education continues to be impacted within this context as well, with over 4,000 schools closed and around 900,000 students subsequently affected (UNOCHAc, 2019).

Climate change and the Sahel

As discussed in the prior section, climate change and increasing violence intersect in the Sahel and exacerbate humanitarian crises. While the Sahel has historically experienced significant climatic variations and droughts, conditions have worsened over the past decades and are expected to continue to deteriorate with the effects of climate change. The region experienced around two decades of drought between 1970 and 1993. Extreme precipitation events like droughts and floods increased in frequency and intensity during this period, impacting food security, poverty and land degradation. These events are only projected to increase with the effects of rising temperatures, which are projected to rise by 3 to 5 degrees Celsius by 2050 (Essoungou, 2013). 'Unprecedented' climates expected to occur by the late 2030s and early 2040s in the area (IPCC, 2018, p.1209).

Surface temperatures over West Africa and the Sahel have increased over the past 5 decades, and overall rainfall in the Sahel has decreased throughout the 20th century. There have been recovery periods after droughts in the 20th century, which have been suggested to be caused by natural variability, or forced environmental response to greenhouse gas emissions (IPCC, 2018). Research on weather patterns in the region over the past 1600 years indicates that the droughts currently affecting the region result from anthropogenic effects, rather than natural variability (Carré et al., 2018). Climate change effects – in particular, drought – are also projected to affect groundwater recharge in the Sahel. This recharge may not be substantially impacted by climatic changes in places that are fed with over 500mm per year, which would allow for sufficient recharge during low rainfall if extraction rates are maintained. However, places like the Sahel, which receive between 200 and 500 mm per year, will potentially experience deteriorating groundwater recharge due to droughts (IPCC, 2018).

Multilateral Cooperation in the Sahel

Given the vulnerability of the Sahel region to climate change, it is unsurprising that there are several initiatives of multilateral cooperation to better manage these climate-related security risks and vulnerabilities. Subsequently we highlight three of the main initiatives in the region: ECOWAS and its work on early warning, the UN Office for West Africa (UNOWAS), and the Group of Five for the Sahel.

ECOWAS

ECOWAS was established in 1975 with the goal of promoting the economic integration of its fifteen member states: Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. ECOWAS is one of the organizations most explicit in its recognition and framing of environmental and natural resource issues in terms of peace and security. However, despite an advanced discourse and recognition of these dynamics, climate change is only marginally visible at ECOWAS. Documents and interviews indicate that the organization is facing challenges to the implementation of effective climate security policies, with the three most critical challenges being: (*a*) a lack of linking natural resources and environmental change to climate change, (*b*) capability constraint and donor dependency, and (*c*) a shortage of commitment from member states to act (Krampe et al., 2018). Only the first challenge is explicitly linked to climate change, whereas the other two are implicitly so. Nevertheless, the latter two inhibit the functioning of environmental security policy frameworks.

ECOWAS's capability constraint is coupled with the prevalence of the principle of state sovereignty over domestic affairs among member states. In particular, ECOWAS's relations with Nigeria, the regional hegemon, hinders the organization from producing a coordinated response at times. For example, the organization is unable to respond to the Niger Delta conflict or the Boko Haram insurgency, since intervention would challenge state sovereignty. The Lake Chad crisis is illustrative of the severity and transnational character of climate-related security risks and how these risks interact with other political and social dynamics in the region. In order for ECOWAS to adequately respond, there is a need to increase internal coordination and to strengthen the cross sectoral exchange of knowledge considering the cross-sectoral dimensions of climate change. From interviews, it is clear that officials recognize the link between natural resource issues and climate change in the region, but this has not translated into an explicit climate security framework. For example, emerging cooperation between ECOWAS and the Permanent Inter-State Committee for Drought Control in the Sahel is one such initiative that exemplifies a willingness towards new framing

and better implementation of a climate security framework. The same is true concerning the control of small arms in relation to transhumance conflicts. However, the Lake Chad crisis is also demonstrative of the limitations of regional organizations and the need for higher levels of governance, in this case the AU, to become actively involved (Krampe et al., 2018).

It is relevant to highlight two initiatives a bit more in detail. The West Africa Network for Peacebuilding (WANEP) and the resultant ECOWAS Early Warning and Response Network (ECOWARN).

West Africa Network for Peacebuilding (WANEP)

The West Africa Network for Peacebuilding (WANEP), founded in 1999, is a regional civil society organization with over 500 member organizations across West Africa. WANEP employs collaborative approaches to conflict prevention and peacebuilding and works with diverse actors such as ECOWAS, the AU, other civil society organisations, among others (WANEP, n.d.a.). The West Africa Early Warning and Early Response Network (WARN) programme is the forerunner of the ECOWAS Early Warning and Response Network (ECOWARN). Since 2002, a unique civil society organisation and regional intergovernmental body partnership between WANEP and ECOWAS has seen WARN support ECOWARN in implementing early warning response mechanisms in efforts to anticipate and mitigate conflicts in the West African region (WANEP, n.d.b.). WANEP Nigeria's recognition of climatic risks presently lies within food security as can be seen in a research report with Oxfam titled: 'Fine words do not produce food' (OXFAM, 2017).

ECOWAS Warning and Response Network (ECOWARN)

The ECOWAS Early Warning and Response Network (ECOWARN) is a robust regional mechanism for conflict observation and monitoring operated by the ECOWAS Early Warning Department. It has been implemented since 2003.[2] The ECOWARN mandate covers diverse aspects of peace and security, ranging from food security, human rights, natural disasters, arms flows, among others. ECOWARN has an Observation and Monitoring Centre mandated with coordinating and monitoring response activities in Member States, and serving as the interface between the Situation Room at the ECOWAS headquarters in Abuja, Nigeria and Member States' peace and security institutions (OECD, 2009; ECOWAS, 2015). ECOWAS National Early Warning Systems field monitors use human security indicators and Geographic Information System (GIS) tools to provide real time data of incidences

[2] http://www.ecowarn.org/Login.aspx

with potential impact on human security on a daily and weekly basis (ECOWAS, 2017). Collaboration between regional economic communities (RECs) has been explored when, in 2018, ECOWARN and the East African Community (EAC) Early Warning and Response Mechanism (EACWARN), sought opportunities to collaborate and share experiences and best practices in processes of establishing and operationalizing national early warning structures, thereby strengthening the early warning mechanisms of both RECs.

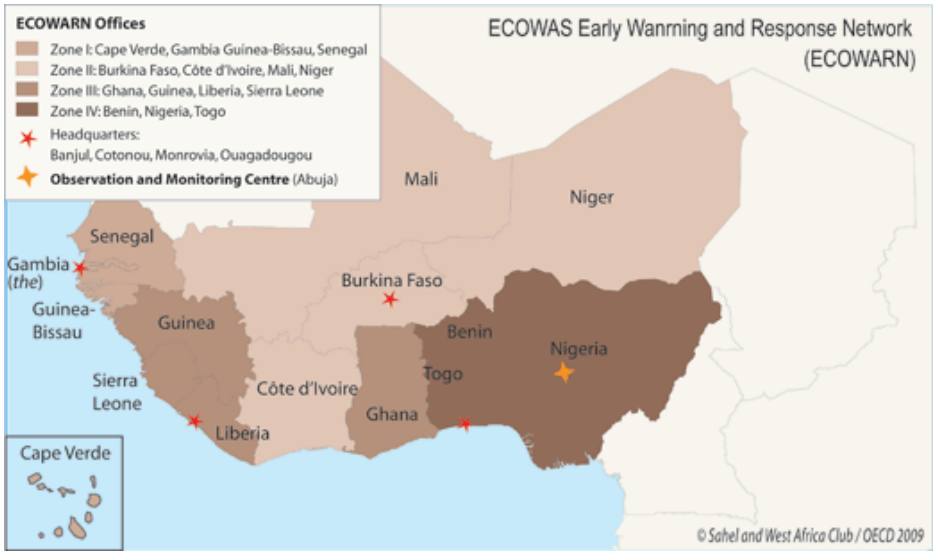


Figure 2: OECD (2009)

In 14th October 2019, ECOWAS delegates met to review the region's early warning system. They also tabled recommendations on how to strengthen and improve the overall operational capability of the existing mechanism to deal with threats to peace in a holistic manner. Risks that are exacerbated by climate change were among those identified during an exercise to understand and develop early responses to the multifaceted challenges that ECOWAS Member States are facing. These challenges included: increased violence associated with transhumance, the multiplication of natural disasters, higher numbers of epidemics and pandemics outbreaks, as well as increased food insecurity (ECOWAS, 2019).

UNOWAS

The United Nations Office for West Africa and the Sahel (UNOWAS) is a Dakar-based 2016 merger of the Office of the Special Envoy for the Sahel (OSES) and the United Nations Office for West Africa (UNOWA), which partakes in preventive diplomacy, capacity building and political mediation and facilitation in countries in West Africa and the Sahel. UNOWAS is managed by the UN Department of Political and Peacebuilding Affairs (DPPA) and works closely with other UN entities and several regional and international partners such as ECOWAS, LCBC, the Group of Five for the Sahel, the Mano River Union [3] and AU to promote an integrated approach to conflict prevention and immense regional issues such as the current state of terrorism and violent extremism (DPPA, n.d.).

UNOWAS is increasingly recognising that persistent and extreme climatic shocks are among the factors that are pushing millions of people 'on the brink of a humanitarian disaster' in various UN Resolutions, Presidential statements and UN Secretary General reports (DPPA, 2015). For instance, in 2016 and on many other occasions, while discussing challenges in the Sahel at the UN Security Council (UNSC), the Special Representative of the Secretary-General (SRSG) for West Africa and the Sahel, Mr. Mohamed ibn Chambas highlighted the devastating impacts of climate change and desertification on peace, security and stability in the Sahel. According to the SRSG, "climate change becomes a fundamental threat to human security" that is exacerbating existing security challenges in the region. These challenges include, inter alia, transhumance clashes between farmers and herders, the insurgency of violent extremism and terrorist activities in North Eastern Nigeria, and Mali, and lack of stimulating economic activities (UNOWAS, 2016; UN Security Council, 2017b; UN Security Council, 2019a; UN Security Council, 2016). In January 2020, the Security Council specifically added climate change considerations to the mandate of UNOWAS and tasked it to assist governments in the region and the UN system in undertaking risk assessments and risk management strategies relating to these factors.

To help address insecurity and promote sustainable development in the Sahel region, the SRSG leads regional advocacy efforts for the

[3] The Mano River Union (MRU) comprises of Côte d'Ivoire, Guinea, Liberia and Sierra Leone and was established in 1973. Since 2009, UNOWAS has intensified its cooperation with MRU focusing on peace and security related initiatives. The region remains unstable largely because of the unhindered movement of armed and criminal groups across the porous borders.

implementation of the United Nations Integrated Strategy for the Sahel (UNISS), which was endorsed by the Security Council in June 2013. There was a Strategic Review of UNISS in 2017 which led to the sharpening tools on conflict prevention and sustaining peace in West Africa and Sahel. The recalibrated UNISS strategy includes a range of multidimensional innovative actions in the areas of governance, security and resilience support for Sahelian countries and recognises climate change and other cross cutting issues such as gender mainstreaming in UNOWAS peacebuilding processes and conflict prevention mechanisms. The recalibration was also to ensure renewed coordinated efforts between different UN agencies working in the region (UN, 2018). The resilience pillar of the strategy prominently features the need to mitigate the impacts of climate change through strengthened regional cooperation and sustained international support to address the root causes of instability in the region. One such initiative is the ongoing partnership with the Permanent Interstate Committee for Drought Control in the Sahel (CILSS) which focuses on natural resource governance and monitoring (DPPA, 2016).

Further, UNOWAS has conducted a study on conflicts between pastoralists and farmers in its jurisdiction which was tabled and positively reviewed at the UNSC. The report broadly highlighted competition for natural resources, climate, and ecological factors among the drivers of the transhumance crisis in parts of the Sahel. The UNSC encouraged coordinated efforts between country governments, ECOWAS and UNOWAS in addressing these challenges for sustained peace and development in the region (UN Security Council, 2019b). At the UN global level, the UN Secretary General's half and end year reports on 'Activities of the United Nations Office for West Africa and the Sahel' released in December 2018 and July 2019, repeatedly recognise the impact of climate change on the conflict dynamics in the Lake Chad basin and parts of the Sahel (UN Security Council, 2019c; UN Security Council, 2018).

UNOWAS and ECOWAS also launched a joint effort to explore ways of introducing conflict-sensitive approaches to national climate change adaptation plans in West Africa (UN Security Council, 2019d).

Group of Five for the Sahel (G5 Sahel)

The G5 Sahel, based in Mauritania, is an institutional framework formed on 16 February 2014 for regional development and security cooperation in five Sahel countries: Burkina Faso, Chad, Mali, Mauritania and Niger. These five countries are plagued by distressing development performances, demographic pressure, high vulnerability to climatic shocks, high levels of unemployment etc. These factors are pertinent

opportunity triggers for irregular migration, violent extremism, terrorism and criminality that is prevalent in the countries. The purpose of G5 Sahel is to strengthen the bond between economic development and security, and address the challenges hampering development in the region.[4]

The situation in the Sahel has attracted the attention of the international community, with the UNSC passing Resolutions and Presidential Statements imploring the need for long term strategies based on climate risk assessments for strengthening the resilience of states and achieve peace and development in the region (UN Security Council, 2019b). A 2018 partnership between the G5 Sahel, the IMF, World Bank, UN and Sahel-Alliance 2018 explores how climate smart agriculture and renewable energy initiatives can transform the existential crisis in the Sahel. These efforts were aimed at strengthening the resilience of community members – especially women and youth – to food, energy and economic security (UNOWAS, 2018). UNOWAS, ECOWAS, EU counterparts and other international actors provide technical assistance and/or financial resources for programme support to the deteriorating security situation in G5-Sahel countries.

The G5 Sahel's Priority Investment Program (PIP) was launched in 2017 by French President Emmanuel Macron, German Chancellor Angela Merkel and the EU's High Representative for Foreign Policy, Federica Mogherini with the objective of improving economic, humanitarian and political conditions in the five Sahel states. PIP's first phase during the 2019-2021 period recognises climate change as one of the challenges curbing security, and has recommendations for climate-smart farming practices by Sahelian farmers for strengthened resilience and human development. The framework also presses the need for reinforcing the resilience of pastoralists, mobile and vulnerable communities (G5 Sahel, 2018).

Best practices and lessons identified

Climate-related security risks are inherently transnational, underlining the need for responses aimed at prevention, adaptation and recovery to be coordinated across borders. While ECOWAS struggled to coordinate and execute work alone due to issues surrounding territorial sovereignty, the more successful efforts demonstrated through WANEP, ECOWARN, and the G5 Sahel demonstrate the importance of regional

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[4] The jihadist organisations operating in the region are AQIM, MUJWA, Al-Mourabitoun, Boko Haram, Islamic State in West Africa Province (ISWAP)

cooperation in addressing climate-related security and development risks.

Additionally, the assistance of multilateral bodies has proven to be of assistance for mainstreaming and implementing climate security efforts with regional actors. For example, while documents and interviews from ECOWAS demonstrated that the organization faced challenges when implementing climate security policy, ECOWAS has begun to work with UNOWAS to identify ways to integrate climate security within climate adaptation plans in West Africa.

Conclusion: Lessons emerging from Africa to date

The compound character of climate change is a strong exogenous factor that reshapes the local context for building peace and is likely to amplify local grievances and marginalization (Krampe, 2019). Herder–farmer conflicts in the Lake Chad Basin and the Sahel causes social stress and inter-communal tensions and can at times lead to violent conflict. Climate change exacerbates these pre-existing social vulnerabilities and adds additional stresses to the social-ecological system. In some contexts, this can result in increases in the frequency and intensity of inter-communal conflict, which in turn undermines the resilience of these communities to cope with and adapt to climate change.

The impacts of climate change also inhibit economic development in the many conflict-affected countries and regions in which the majority of the population depends on agriculture for its livelihood. Extreme weather events in particular overwhelm already fragile institutions that are unable to cope with responding to the effects of either slow- or rapid-onset disasters. The impacts of climate change therefore tend to further erode the already weak capacity of states to prevent and manage conflict. The experiences in the Lake Chad Basin and the Sahel, show that multilateral cooperation at the sub-regional level, amplified, echoed and supported at the AU and UN levels, can contribute significantly to preventing, mitigating and adapting to climate change, and managing climate-related security and development risks.

A number of best practices are emerging. The regional stabilization strategy in the Lake Chad basin connects and combines the networks, capabilities and resources of the local, sub-regional and multilateral governance mechanisms. In particular it links the LCBC, the AU, the UN system and international partners with local community and civil society groups, as well as the local government level via the Governor's Forum. It thus serves as an example of how such strategic frameworks can be used to connect key stakeholders both horizontally and vertically, and establish mechanisms and instruments that facilitate and institutionalize their roles in co-governing their shared social-ecological system. This type of multilateral cooperation enables the kind of local-global coordination that can address the cross-scale dynamics that emerge from connections between local and global-scale systemic processes associated with climate-change. It does so by mobilizing and

leveraging political, technical and financial support on sub-regional, regional and international scales, and by focusing on locally coordinated context specific needs-driven initiatives.

The regional strategies for the Lake Chad basin and the Sahel are both examples of the need for comprehensive multidimensional and multidisciplinary approaches. Both strategies reflect that climate-related security and development risks require a system-wide prevention and mitigation strategy that integrates security, governance, development, socio-economic, environmental and humanitarian dimensions, amongst others. Whilst the security situation needs to be managed, sustainable solutions require that the emphasis needs to be on addressing the vulnerabilities of the affected communities by investing in strengthening their resilience and adaptive capabilities. These strategies aim to do so by improving local governance and services, and by investing in infrastructure, public works and other socio-economic recovery and job creating initiatives. Both strategies emphasize that these initiatives should have a focus on gender and youth and that they should be climate proof, i.e. sensitive to climate-related security and development risks.

Recommendations

Many multilateral institutions are underprepared for the fact that climate change is already affecting key elements of their mandates. To better prepare for and adequately respond to what are increasingly complex security and development contexts, the security, peacebuilding and development efforts of these institutions must become more climate-sensitive. The following recommendations can be considered at the sub-regional meeting:

Strengthen early warning and response mechanisms by strengthening multilateral cooperation and integrating information and indicators of climate-related security risks

1. Strengthen the cooperation and underlying mandates between the African Union and its RECs relating to climate related security risks. To do so, supporting existing early warning and analysis instruments and capacities on the continental level such as the AU Continental Early Warning System (CEWS) provides an opportunity in terms of analysis. The continental level needs further integration with the RECs to support their early warning systems.

2. Additionally, there is a need to establishing inter-departmental and cross-agency initiatives to collect and analyse data disaggregated by sex, age, ethnicity, disability and location. Further, assessment indicators and tools for climate-related security and development risks, vulnerabilities and resilience should be developed in close synchronization between AU and RECs. These indicators and tools should be gender-responsive as well, and allow for institutions to assess progress in promoting women's participation in climate security and development initiatives;

3. Part of this should involve establishing inter-departmental and cross-agency, and inter-disciplinary knowledge resource platforms that are tasked to stimulate cross-organisational learning and adaptation;

4. As well as establishing a joint (REC, AU, EU, UN) database of experts (individuals and institutions) on climate-related security and development risks;

5. This demands increased investment in evidenced-based research that integrates conflict analysis and analysis of climate change factors, with the aim of increasing our knowledge and understanding of how to better manage the different and connected dimensions of climate-related security and development risks;

6. Establish a civil society Advisory Council that reviews initiatives and provides input to the local feasibility of programmes and projects.

Increase multilateral cooperation, knowledge exchange and learning

The multifaceted effects of climate change on social, economic, security, development and political dynamics, across all local to global scales, have important implications for how all multilateral actors currently function. If these institutions try to address these challenges from the perspective of their specialised mandates without investing in cross-scale and multi-dimensional analysis and coordination with other multilateral institutions, and other agencies within their own institutions, they will become increasingly ineffective and irrelevant. To improve coordination within and among multilateral institutions, and between multilateral institutions and local and national actors on the ground, existing efforts to enhance knowledge sharing, joint analysis, integrated planning and combined evaluations will need to be scaled-up. Current efforts are still too ad hoc. These are some of the ways in which multilateral institutions can scale up their efforts:

- A joint initiative to collect lessons and identify good and bad practices on operational multilateral cooperation, for instance to accompany and eventually evaluate the implementation of the Lake Chad, Sahel and similar regional strategies, will increase cross-institutional dialogue and encourage the development of joint responses and staff training. Such efforts should also aim to generate specific recommendations on revising and adjusting existing financing mechanisms and bureaucratic rules and cultures that inhibit collaboration and stimulate competition.

- Establish new or strengthen existing mechanisms that bring together different parts of the international multilateral system that deal with disaster response, humanitarian action, conflict management and resolution, etc. Such a mechanism should create a platform to exchange information, share knowledge and coordinate action where appropriate on the actions different multilateral institutions take to help countries and regions

prevent, mitigate and adapt to climate-related security and development risks. At both the AU and UN some are advocating for the appointment of Special Envoys for Climate and Security, and such positions may assist this process by helping to identify clear focal points that have the specific role to support inter- and intra-agency cooperation. In the AU-UN context climate change related security and development risks should also be a key thematic area for dialogue and collaboration between the AU Peace and Security Council and the UN Security Council, as well as between the AU Commission and the UN Secretariat.

- In specific cases, such as those showcased in this paper, invest in joint strategies that stimulate shared analysis and joint planning, and invest in using such strategies as a vehicle to maintain momentum, facilitate multilateral coordination and cooperation, amongst others by setting up a joint monitoring, reporting and evaluation mechanisms that can generate the data necessary to stimulate regular coordination and stock-taking meetings or processes.

Ensure gender is comprehensively mainstreamed across all scales of initiatives focusing on climate change and related security risks

Further, the active participation of diverse groups of women should be enabled in decision-making in policies and programs focusing on climate change and related security risks on all levels. Structural barriers that may inhibit their meaningful participation in these efforts, and lead to negative human security effects in relation to climate impacts (e.g. lack of rights or access to natural resources) should also be addressed. Climate change has the potential to exacerbate gender inequalities, and women in many parts of the world will experience unique and profound human security impacts, especially in settings also affected by insecurity or conflict. However, their knowledge base and needs related to their environment is crucial for thoroughly and effectively addressing climate-related security risks. Investment and effort should be increased in research, policies and programs surrounding climate change, gender and peacebuilding.

Invest in prevention, mitigation and adaptive capacities

The deployment of security forces to contain and manage conflict, and humanitarian efforts to assist affected communities or displaced populations are often too little too late, yet costly in terms of political attention, bureaucratic organisation and financial resources. Sustainably managing conflict-related risks require proactive investment in prevention, resilience and adaptive capacities.

- At the local level this implies investing in strengthening the resilience of drawing upon local expertise and communities. Particulars would be context specific, but could imply increasing livelihood options by diversifying crops and livestock, developing new skills, strengthening local conflict resolution mechanisms, establishing inter-communal conflict resolution mechanisms and procedures in anticipation of, for instance, dry-season transhumance migrations, and expanding or diversifying local networks. Such initiatives should also be conducted with an actionable acknowledgement of gender dynamics in different contexts, ensuring that the needs and perspectives of different demographics within local communities are comprehensively met and integrated. These initiatives can be supported, both technically and financially be multilateral institutions and by multilateral cooperation by for instance incorporating such initiatives into regional strategies.

- At local, sub-national and national levels, decision making surrounding proactive adaptation to and mitigation of climate-related security and development risks, including disaster risk reduction, must institutionalise equal gender participation and influence. These efforts may include increasing the capacity of different civil society groups – such as youth and women's groups - to create and implement related policies, and strengthening relevant institutional mechanisms to ensure their participation.

- At the sub-national and national level, this could imply investing in capacities to assess, analyse and advise the political leadership on climate-related security and development risks. It could also mean investing in strengthening dispute resolution mechanisms, as well as the administrative and judicial instruments that are responsible for land and contract management, including those responsible for natural resource management and law enforcement. Overall, the intent should be to shift from a reactive to a pro-active approach, where capacities and mechanisms are established to prevent climate-related conflict, and to mitigate climate-related developmental effects, instead of responding only after the fact to try to contain and manage the effects. Multilateral organisations can assist with technical and financial resources, and multilateral cooperation can contribute by incorporating facets into regional strategies and creating fora for networking and knowledge exchange that can build knowledge and capacity.

- At the sub-regional and regional level this could imply strengthening mechanisms for managing regional dynamics, such as human trafficking and other forms of smuggling across borders, refugees and migration, the movement of armed groups, etc. The emphasis should be on standing procedures to share information and coordinate action in a pre-emptive and proactive manner, as opposed to reacting after the fact and only then investing in setting-up mechanisms, channels and networks. Multilateral institutions can assist with facilitating coordination and cooperation where needed, and regional strategies can help to either re-purpose or beef-up existing coordination mechanisms, or to establish new ones where needed.

Invest in conflict-and climate resilient agricultural employment specifically targeted to young people

Sustainable livelihoods is key for both peace-and climate resilience. Africa, being the youngest continent in the world, faces huge demographic shifts, urbanisation and growing youth unemployment. The agricultural sector is abandoned for chances provided in an urban environment. By having multilateral actors investing in climate-resilient employment and provide training in the agricultural sector, poverty-and conflict risks are reduced if programmes are inclusive and adapted to local sensitivities and inherited contexts. Further, improving measures to promote adaptation and resilience to climate change and related shocks, and strengthening natural resource management may provide avenues for peacebuilding. Possible ways to build social cohesion within and between communities include equitably securing land rights and providing access to justice and mechanisms for improving dialogue. By combining knowledge of peacebuilding, agriculture and climate science, innovative programmes undertaken to employ youth and bolster agricultural activity could benefit entire societies.

Regularly assess climate-related security and development risks

Given the complex effects of climate change, multilateral actors need to not only consider the local context, political economy and regional dimensions of a particular conflict system, but also factor in the climate-related security and development risks. Specific climate-related risks experienced by different demographics should be acknowledged, understood and incorporated into these assessments. Subsequently, there should be increased investment in developing context-specific knowledge on climate-related security and development risks as experienced by different demographics. Increased knowledge with emphasis on international attention and practical steps would be of

great value to initiatives dedicated to addressing the negative impacts of today's environmental challenges and promoting actionable change. Now seven years after the release of the last major international report on the issue of climate security, it is time for steps to be made to improve tomorrow's prospects for peace and security. While knowledge on climate change has drastically improved, further developing the current knowledge base is key to having impact on the links between climate change and security on an international and simultaneously practical level. One tool that would be of great use is a report that culminates in a major inter-governmental meeting where matters pertaining to climate change, natural resources and its risks to security are placed at the core.

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