Somalia is highly susceptible to the effects of climate change and extreme weather. Without anticipatory preventive approaches, these factors are likely to exacerbate existing vulnerabilities and reduce the people’s livelihood options, which in turn may have negative impacts for stability and security in Somalia. More frequent and intense droughts and floods undermine food security and worsen livelihood conditions in Somalia, adversely affecting marginalized groups, fuelling grievances, increasing competition over scarce resources and exacerbating existing community tensions and vulnerabilities. This has complex and interlinked implications for the peace and security situation in Somalia, including:

- Climate-related displacement and migration are likely to increase, particularly for those whose livelihoods are influenced by droughts and floods; that can fuel tensions at the community and national levels and disrupt ongoing conflict resolution initiatives.
- Internally displaced persons (IDPs) are particularly vulnerable to identity-related conflicts and armed group recruitment.
- Armed groups like Al Shabaab can take advantage of climate impacts by positioning themselves as service and relief providers following droughts and floods.
- Droughts and floods can link local resource conflicts to broader insecurity, as elites may exploit the impacts to advance their influence over communities and resources.

The Federal Government of Somalia (FGS) and Federal Member States (FMS) need to adapt and enhance their analysis and coordination mechanisms, to prevent climate-related inter-group tensions from becoming violent and Al Shabaab and other armed groups from taking advantage of climate impacts.

The United Nations Assistance Mission in Somalia (UNSOM) and the United Nations (UN) system have already increased their capacities in this area significantly; now they must step up their support to the FGS and FMS. The UN Security Council (UNSC) has requested UNSOM and the African Union Mission in Somalia (AMISOM) to include climate-related security risks in their reporting, but these missions have not yet sufficiently integrated these risks into their analysis and planning.

Anticipatory preventive responses to climate-related security risks, including environmental peacebuilding, can help to strengthen the resilience of IDPs and local communities – especially women and youth – and contribute to climate-proofing governance, basic service provision and peace and security efforts.

**RECOMMENDED ACTIONS:**

- To increase the government’s ability to respond to the wide range of climate-related security risks outlined in this brief, the FGS needs to ensure that climate-related security risk analyses are collected and shared across ministries and agencies as well as with FMS. Integrating climate risks into the security cluster will enhance the government’s ability to prevent climate-related inter-group tensions from becoming violent and Al Shabaab and other armed groups from taking advantage of climate impacts.

- The UN system and international partners must support the FGS and strengthen its institutional capacity to integrate responses to climate-related security risk across government. To support regional integration and capitalise on synergies, this should be done in coordination with regional institutions such as the IGAD (Intergovernmental Authority on Development) Conflict Early Warning and Response Mechanism (CEWARN), and the IGAD Climate Prediction and Applications Centre (ICPAC), as well as the African Union (AU).

- The AU should support AMISOM, including through the use of its Continental Early Warning System (CEWS), in integrating climate-related security risks in its protection of civilian planning. AMISOM should increase its preparedness to support the FGS, FMS and humanitarian actors, on request, to respond to slow- and rapid-onset climate-related impacts.

- The UNSC should institutionalize the position of the Environmental Security Advisor in UNSOM, to enhance coordination with the FGS, but also for better-integrated responses within the UN system across the humanitarian-development–peace nexus and mainstreaming climate security into the work of the UN system on the community level.

- The UNSC should call on AMISOM and UNSOM to enhance their climate-related security risks analysis and reporting, and report on how issues of climate security are affecting its mandate.

**Sources:**

Climate Trends and Projections

Somalia is highly susceptible to the effects of climate change and extreme weather, such as periods of extended drought, flash floods, erratic rainfall, disruption to the monsoon seasons, strong winds, cyclones, sandstorms and dust storms. Extreme weather events and rapid-onset disasters have occurred more frequently in Somalia in the past 25 years.2

Temperature: Median daily maximum temperatures in Somalia range from 30°C to 40°C. The country has experienced a gradual and continuous increase of 1°C to 1.5°C in median annual temperatures since 1991. Long-term projections predict a continued increase of between 3.2°C and 4.3°C by 2100.3

Precipitation: Rainfall is erratic, with interannual and intra-seasonal variability. Conditions are hot and arid in the north (<250 mm rainfall) and wetter in the south (ca. 400 mm) and south-west (ca. 700 mm).4 By 2050 it is projected that precipitation will increase by about three per cent, especially during the rainy season, with increasing seasonal variability. This could benefit agriculture in some regions but lead to flooding and soil erosion in areas with minimal or degraded forests.5

Socio-ecological Dynamics

Dependence on agriculture makes the Somali population highly vulnerable to the impacts of climate change. Increases in precipitation and temperature will have a significant effect on food security, as the overwhelming majority of the population is dependent on agriculture for their livelihood: in 2020, more than 80 per cent of the population was employed in the agricultural sector (including agriculture and pastoralism, hunting, forestry and fishing).6 Pastoralism and trade in livestock remain the principal livelihood for a majority of Somalis and account for roughly 80 per cent of export earnings annually.7

Labour demands peak twice a year, in connection with the Gu off-season harvest and the Deyr off-season harvest. Land preparation and planting are supposed to occur in symbiosis with the Gu and Deyr harvest seasons. For herders, camel and cattle calving are also linked to certain months, as nomads and livestock migrate to lush grazing areas during wet seasons. There is some evidence that heatwaves and droughts in Somalia have led to increased livestock raiding and recruitment to armed groups when herders sell more livestock than usual, leading to an oversupply of low-quality animals and triggering local price shocks.8

For farmers and herders, rainfall patterns influence a complex series of movements in search of grazing land between the seasons. Seasonal variability and unpredicted shifts can have cascading effects on herders, farmers, markets, families and entire communities.9

Climate-related Peace and Security Risks

Four interrelated pathways illustrate the relationship between climate change, peace and security: (1) livelihood deterioration, (2) migration and mobility, (3) military and armed actors, and (4) political and economic exploitation.9

Livelihood Deterioration

In Somalia’s 2013 National Adaptation Programme of Action on Climate Change (NAPA), the FGS concluded that extreme weather events are associated with loss of livelihoods and increased poverty.5 This has been further highlighted in the January 2020 FGS—AU—UN Joint Threat Assessment of Somalia.10 Somali community leaders told the authors of the 2013 NAPA report that droughts fuel herder–farmer conflicts because settled communities and livestock herders must compete for fewer resources.11 Loss of income from agriculture and pastoralism can also increase the risks of violent conflict: people believe that they have less to lose from using violence or joining armed groups when their livelihood is threatened.12

Seasonal and weather phenomena are becoming harder to predict, given the increasing number of dust storms and droughts, stronger winds, and notably hotter temperatures over the past four decades.13 For example, in late 2019, Cyclone Pawan and severe floods in the Horn of Africa created ideal conditions for desert locust breeding. Strong winds in 2020 helped to spread locusts across the region; in March/April and November/December, Somali agriculturalists faced two infestations that led to the loss of approximately 20 per cent of national crop yields. New infestations in 2021 are likely.14

Labor demands peak twice a year, in

Key livelihood and labour cycles in Somalia’s seasonal calendar

Figure 1. Source: Famine Early Warning Systems Network, <http://fews.net/file/113530>.
should improve their capacity to track and analyse climate-related livelihood and food security impacts so as to be better prepared to take early coordinated anticipatory preventive responses to manage emerging climate-related security risks.

**Internally Displaced Persons (IDPs)**

South Central Somalia

Figure 2. Data source: IOM DTM, SWAC-OECD & Natural Earth.

Migration and Mobility

Migration and changes in mobility patterns can increase the risk of violent conflict in two interrelated ways. First, in areas severely affected by resource scarcities, large influxes of people can place additional burdens on the economic resource base, in turn increasing the risk of local resource conflicts. Second, migration and changing mobility patterns are particularly linked to violent conflict between communities that lack shared institutions for conflict resolution.17

Climate-related migration is increasingly understood as an adaptation strategy for groups whose livelihoods or survival are jeopardized by the impacts of climate change. Climate change may influence migratory movement towards areas with better livelihood options, as well as rural-to-urban migration. Thus far, cross-border migration has been explained by factors other than climate change. For example, by June 2019, the compounded effect of several years of drought had caused widespread crop failure, reduced livestock profitability — and the displacement of 53,000 people from the worst-affected communities.18 These joined an estimated 2.6 million Somalis already displaced by other factors, including war.19 The impacts of years of climate threats such as poor rains, flash floods and water shortages have displaced thousands of people annually, and are likely to continue.20

There is some evidence that climate-related migration in Somalia can fuel local tensions and even impact national conflict dynamics. Major changes in the climate, accompanied by conflict, can threaten the control of dominant groups, leading to tensions and violence.21 IDPs may suffer from the lack of clan protection, weakened social cohesion and organised security, with some evidence that IDP sites have been the locus of conflict between groups as well as targets for recruitment to armed groups like Al Shabaab.22

Where climate-related migration in Somalia, and into neighbouring countries, has fuelled tensions between communities, violent outcomes are equally affected by the context of the long civil war, the erosion or replacement of customary mechanisms for dispute resolution, and the loss or displacement of traditional mediators, elders and local experts in customary law.23

This makes it especially important for the Somali government, at federal and member state level, to be able to take anticipatory preventive response measures to reduce the risk of climate-related migration triggering violent conflict. Regional and international partners including IGAD, AMISOM and UNSOM can help to develop early warning systems and to increase their response capacities.

**Military and Armed Actors**

Climate change can also affect the dynamics of ongoing conflict. When climate change affects the availability of natural, human and other resources, armed groups adapt strategy and tactics accordingly. Al Shabaab has shown how armed groups under climate pressures can use tactics to protect their access to resources. Following the droughts of 2000 and 2004, the group seized parts of southern Somalia and extorted farmers, thereby generating income to finance their insurgency and further consolidating their strongholds in the region.24

Groups like Al Shabaab have benefitted from climate impacts to boost recruitment. Studies show that the livelihood deterioration caused by droughts can trigger economic decline, forcing pastoralists to sell more of their livestock and depressing prices, which increases the risk that they may turn to livestock raiding or join armed groups.25

The impact of climate-related disasters on armed group recruitment and support is contingent on factors including the presence and capacity of government actors and competing groups.26 There is some evidence that Al Shabaab has used the droughts to position themselves as alternative service and relief providers in areas that were beyond FGS and FMS control.27 Al Shabaab established drought committees to coordinate relief operations in six administrative regions; during the famine, they distributed food. The increasingly cyclical occurrence of drought, flood and famine gives Al Shabaab opportunities to highlight its position as a relief provider—a notable change from its strategy during 2010–2011, where they would prevent people in its territory from seeking aid in government-controlled territory.28

The Juba and Shabelle perennial rivers in southern Somalia are important sources of water for daily use such as irrigation, food production and sustaining livestock herds during periods of serious drought. The absence of reliable water resource management institutions due to ongoing conflict has led to severe degradation of water resources.29 In addition to clashes between clans over access to water, there have been instances where Al Shabaab has exercised

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26 Maystadt & Ecker, 2014; Embret al., 2014.
control over access to water, blocking access to rivers, poisoning wells or destroying water infrastructure.30

A wide range of factors determine the capabilities and considerations of armed groups, including ’strategic ambitions and objective constraints such as geographical distance, terrain, infrastructure, military strength and the spatial distribution of resources’.31 As with the other pathways, there is no direct causal link between climate change and armed hostilities, but climate-related change can be a factor that influences the tactics and options of the Somali Security Forces, AMISOM, clan militia, and armed groups like Al Shabaab.

The FGS and FMS should strengthen their analysis and coordination mechanisms, generate early warning and take more anticipatory action to prevent climate-related inter-group tensions from becoming violent, and to prevent Al Shabaab and other armed groups from taking advantage of climate impacts to expand their influence. AMISOM has not sufficiently integrated climate-related risks into its protection of civilians assessments and planning processes, nor does it adequately exchange information with, for example the World Food Programme (WFP) and the Food and Agricultural Organization (FAO), which conduct regular food security and livelihood assessments that can inform AMISOM’s early warning and rapid response planning.

Political and Economic Exploitation

Local conflicts, rather than civil wars, are a more likely outcome of environmental degradation due to climate change.32 However, small-scale tensions can increase the risk of broader conflict when exploited by elites—individuals or groups with relative wealth, privilege, power or influence.33

Local and national elites and clans can use the disruptions of rapid-onset disasters like drought or floods, or the recent locust infestations, to strengthen their control over critical resources, at the expense of weaker or marginalised groups. Research in Somalia has found some cases where minority communities were the targets of looting and violence by more powerful clan militia, with attacks on livestock and food stores.34

Political factions can 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 can take advantage of the aforementioned grievances to strengthen their own agenda. This has sensitive historical relevance as clan relations and the role of grieving marginalised groups and clans were, and remain, linked to conflict dynamics among dominant groups on a national scale. Political and clan elites may also to capitalise on grievances to gain support for their political agenda, fuelling stronger resentment among groups as well as against the FGS and its allies.35

The FGS and FMS, with support from regional and international partners, should strengthen their capacity to prevent and resolve climate-related clan and other local disputes before they turn violent. Early anticipatory preventive responses to emerging climate-related security risks can disrupt attempts by local and national elites to manipulate climate-change impacts. Importantly, such environmental peacebuilding efforts can enhance local and national capacities to resolve disputes peacefully.

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The Climate-related Peace and Security Risk project aims to generate reliable, relevant, timely and actionable information and analysis on climate-related security and development risks for selected countries and regions on the UN Security Council agenda.

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