UNITED NATIONS

CLIMATE SECURITY MECHANISM



TOOLBOX
BRIEFING
NOTE







TABLE OF CONTENTS

INTRODUCTION		1
I.	A SNAPSHOT OF CURRENT CLIMATE CHANGE KNOWLEDGE	2
	What is the role of human activity in climate change?	2
	How do the impacts of climate change manifest?	3
	What are climate change projections for the future?	4
II.	INTERLINKAGES BETWEEN CLIMATE CHANGE, PEACE AND SECURITY	5
	Are there examples that illustrate these interlinkages?	6
Ш	. THE IMPORTANCE OF CONSIDERING CLIMATE-RELATED SECURITY RISKS	8
	What are action areas for the UN system?	8
	Where can I get more information?	10
ΑI	NNEX 1: EXEMPLARY CASE STUDIES	11
	Afghanistan	11
	Pacific Islands Region	12
	Lake Chad	13
	North Kordofan, Sudan	14

INTRODUCTION

Climate change is a growing priority for States and communities around the world and the UN Secretary-General has called it the defining issue of our time. Greenhouse gas emissions have already increased temperatures and are melting glaciers, raising sea levels, and threatening lives and livelihoods around the world. Extreme weather events – intense rains, storms, prolonged droughts, heat waves, and wildfires — are becoming more frequent and more severe. These changes have impacts beyond the environmental realm and deeply affect human systems. As climate change converges with other global pressures, including population growth, uncontrolled urbanisation, increased demand for resources, environmental degradation, uneven economic development and inequality, it leaves communities poorer and less resilient.

Climate change brings particular risks for fragile contexts where coping capacities tend to be low. Climate impacts can compound structural vulnerabilities, such as political grievances, inequality, gender-based marginalization, food insecurity, economic weakness, and large-scale movement of people. In already fragile contexts, these interactions can intensify security challenges and exacerbate instability. In the worst cases, climate changes can overwhelm states and societies, increasing the risks of violence, instability, and conflict.

Failure to understand and address these joint risks comes at a high cost. Efforts to promote sustainable development and peace will not be durable if they fail to recognize the interaction of climate change with socio-economic, political and demographic factors. If climate change risks are not mainstreamed, development, humanitarian or peacebuilding efforts can unintentionally reinforce existing vulnerabilities and make dynamics worse. Omitting future climate change impacts in peace negotiations, for example when allocating climate-sensitive natural resources such as water and land between conflicting parties, can mean that peace-making and political settlements may not hold up when environmental conditions change.

For policy-makers and operational actors, a key question to ask then is not whether, but rather how climate change interacts with potential conflict dynamics, and how to address emerging risks. There is thus a dual need to better understand how these risks play out in various geographical contexts and what actors such as the UN can do to respond.

This briefing note and the accompanying toolbox were developed by the Climate Security Mechanism (CSM) with the support of partners from across and beyond the UN system to find a common approach to these challenges and shape appropriate and timely responses.¹

^{1.} The UN Climate Security Mechanism (CSM) was established in October 2018 as a joint initiative by DPPA, UNDP and UNEP. The CSM provides the United Nations with a small but dedicated capacity to connect and leverage existing resources and expertise across the system in an attempt to address climate-related security risks more systematically. This briefing note was developed by the CSM in cooperation with Adelphi and SIPRI.

A SNAPSHOT OF CURRENT CLIMATE CHANGE KNOWLEDGE

From rising temperatures to shifting weather patterns, the impacts of climate change are global in scope and unprecedented in scale.²

- Anthropogenic emissions of greenhouse gases have already increased global average temperatures by around 1°C since pre-industrial times. Mean sea levels have risen by over 0.19 meter since the turn of the 20th century. The past decade was the hottest on record and more than 1 million species are currently threatened by extinction.
- The Paris Agreement aims to keep the increase in global average temperature to well under 2°C above pre-industrial times and as close to 1.5°C as possible.
 Parties to the agreement are required to put forward Nationally Determined Contributions (NDCs) outlining their contributions.
- Based on current NDCs, the world is on track for an average global temperature increase of 2.9°C to 3.4°C by 2100.³
- The Intergovernmental Panel on Climate Change (IPCC) has warned that exceeding 1.5°C warming will push us into "a highly uncertain world".
- To keep warming below 1.5°C, GHG emissions would need to be cut by 45% by 2030, and reach net zero by 2050.
- Around 68% of extreme weather events are caused by climate change.⁴
- According to the World Economic Forum, the top five most likely risks facing the world over the next 10 years relate to climate change and the environment.

What is the role of human activity in climate change?

Human activities have led to unprecedented levels of greenhouse gas emissions in the past decades, with emissions nearly doubling in the period between 1970 and 2010 alone.

According to the IPCC, "it is extremely likely that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcings together."

^{2.} Unless otherwise stated, the information is taken from IPCC 2018: Global Warming of 1.5°C and IPCC 2014: Climate Change 2014: Synthesis Report.

^{3.} https://www.unenvironment.org/resources/emissions-gap-report-2019

^{4.} According to analysis from Carbon Brief, 68% of all extreme weather events studied to date were made more likely or more severe by human-caused climate change. See: https://www.carbonbrief.org/mapped-how-climate-change-affects-extreme-weather-around-the-world

^{5.} http://www3.weforum.org/docs/WEF_Global_Risk_Report_2020.pdf.



Figure 1: Global average atmospheric carbon dioxide levels over the past 800,000 years, showing a steep rise in emissions between 1950 and 2013.6

How do the impacts of climate change manifest?

The impacts of climate change on people and the planet vary between regions. For example, parts of the tropics are projected to experience the highest increase in number of hot days. The Sahel is facing temperature rises 1.5 times the global average along with increasingly erratic rainfall patterns and more frequent storms. In South East Asia, typhoons and floods are becoming more intense and frequent, whilst South Asia faces higher temperatures and increased flood risks due to glacial melt. North America is expected to experience severe heat, heavy precipitation, and declining snowpack, and Europe faces higher risks of droughts and forest fires.

While the impacts of climate change are felt globally, people in low and middle-income countries are often affected most heavily. This is partly due to their typically high dependence on climate sensitive agrarian economies, but also due governance shortages and the lack of institutions equipped to cope with the complex impacts of climate change.⁷



Figure 2: Rise in annual global temperatures since 1850.8

^{6.} https://climate.nasa.gov/climate_resources/24/graphic-the-relentless-rise-of-carbon-dioxide/

^{7.} UNFCC, Physical and socio-economic trends in climate-related risks and extreme events, and their implications for sustainable development, https://unfccc.int/resource/docs/2008/tp/03.pdf

^{8.} Annual global temperatures from 1850-2017. The colour scale represents the change in global temperatures covering 1.35°C. https://www.climate-lab-book.ac.uk/2018/warming-stripes/

What are climate change projections for the future?

According to projections by the IPCC, the earth is likely to get 1.5°C hotter between 2030 and 2052, if warming continues at the current rate. Climate-related risks to livelihoods, human security and economic growth will increase with this level of heating and could be catastrophic with an increase of 2°C.

A continued increase in emissions will cause more frequent and intense extreme weather events such as heat waves, heavy precipitation and floods. The interaction of climate impacts with other pressures, including inequality, population growth or urbanization will exacerbate climate-related risks further. For example, decreasing rainfall and higher temperatures will reduce water supplies in many arid regions, while at the same time rapid population growth means a growing demand for water.



Photo 1: A woman draws water from a well in the Shagra region of Wadi El Ku, Sudan. Competition over natural resources has contributed considerably to conflict in Sudan's Darfur region, worsening the natural environment that so many depend on and creating a setting that is neither sustainable nor supportive of economic recovery and peace. 2014 © Alberto González Farran

^{9.} Bouwer, Laurens M. 2019: Observed and Projected Impacts from Extreme Weather Events: Implications for Loss and Damage. In: Mechler, Reinhard; Laurens M. Bouwer, Thomas Schinko, Swenja Surminski and JoAnne Linnerooth-Bayer (eds.). Loss and Damage from Climate Change: Concepts, Methods and Policy Options. Cham, Switzerland: Springer Nature.

INTERLINKAGES BETWEEN CLIMATE CHANGE, PEACE AND SECURITY

The link between climate change and security is indirect, non-linear and multi-dimensional. While no conflict is mono-causal and climate change does not cause violent conflict in and of itself, evidence from around the world¹⁰ shows that climate change can multiply risks known to contribute to insecurity, overburden state capacity and make already vulnerable communities more susceptible. The pathways through which these risks play out are highly contextual and determined by the localized interplay of climate stressors with parameters of exposure, and the vulnerability and coping capacity of societies.

Some impacts of climate change on security are highly visible and more immediate. For example, many small islands and low-lying coastal areas are highly exposed to the risks from sea level rise, including saltwater intrusion, floods and infrastructural damages, which may erase livelihoods and forcibly displace communities. Other impacts are more complicated and felt through pathways such as food insecurity, poverty, and increased inequality. Yet other impacts may play out at the level of complex human systems, where the cascading impacts of climate change can affect job markets, global food prices and geopolitical stability.

A number of contextual factors, including dependence on natural capital, conflict history and quality of governance are decisive in shaping the outcome of the linkages between climate change and security. When critical thresholds are exceeded and coping capacity compromised, this interplay between climate change and other factors has the potential to affect human, community, state and international security. In fragile and conflict-affected areas, climate-related security risks can create negative feedback loops and trigger a downward spiral of climate disasters and conflict. However, the security-related consequences of this interplay are not limited to violent conflict; they can also play out as other types of insecurity, including organized crime, armed group activity and sexual and gender-based violence. Thorough risk analysis helps to identify whether or not a particular situation exhibits the conditions in which the impacts of climate change can increase risks of insecurity.

Recent evidence confirms the confluence of climate and conflict risks, showing that a large portion of the population and/or extensive land areas in fragile states face high climate risks. Indeed, 70% of the bottom quartile of countries most vulnerable to climate change are also in the bottom quartile of the most fragile countries in the world. This underlines the increasing need to address climate change, fragility and conflict risks together. At the same time, planning and implementation of climate change adaptation programming is lagging in conflict-affected and fragile states, and new modes of delivery are urgently needed. As climate change, disasters and conflicts are interlinked, our responses must reflect the multidimensionality and interconnected nature of risks.

^{10.} For regional examples, see for instance https://climate-security-expert-network.org/risk-assessments-research-papers, https://www.sipri.org/research/peace-and-development/climate-change-and-risk/expert-working-group-climate-related-security-risks or https://igarape.org.br/en/climate-and-security/.

^{11.} USAID (2018): "Lessons Learned from Peace III: A Mid-Cycle Portfolio Review", USAID: Washington, D.C.

Are there examples that illustrate these interlinkages?

The impact of climate change on security is highly contextual and determined by the localized interplay of multiple factors. The below outlines examples of how these interlinkages can manifest in real life situations (see more detailed case studies in the Annex):

- Water shortages caused by drought or rainfall fluctuation can expose women and children – who are responsible for water collection in 80 percent of households – to increased risks of sexual and gender-based violence as they are forced to walk farther to collect water.
- The deterioration of natural resource-based livelihoods in climate change-affected contexts can incentivize young men and women seeking to support themselves and their families to join armed groups. The growth of armed groups, in turn, exacerbates insecurity, limits mobility, and makes adapting to a changing climate ever more challenging.
- Changes in the availability or quality of natural resources can increase the risk
 of domestic and gender-based violence when women are unable to fulfill their
 socially prescribed gender roles, such as providing energy for their households.
- Climate change impacts such as increasing temperatures, drought, and sea level
 rise create more volatile food prices, increase competition for natural resources
 and make livelihoods less secure. This in turn can contribute to instability and
 fragility, in particular when interacting with other possible conflict drivers such as
 inequality and marginalization.
- Climate change creates additional demand for state services, e.g. disaster assistance in the aftermath of storms, food aid, and safe management of displacement. When unmet, these needs can compound pre-existing grievances over inequality, political marginalization and unresponsive governments.
- The increase in climate change-related extreme weather events is already creating new demands for militaries in their capacity as first responders. In addition they have costly impacts on military installations and capacities, especially naval bases.

The impact of these interactions will not only vary between States and communities, but also within them. Different people are affected in different ways, depending on their available resources and capacities to adapt to or cope with the changing environment. For instance, gender inequalities are often deepened in situations of insecurity and negatively affect the ability of women and entire households to cope with climate risks. In other cases, shifting social norms may open new opportunities to engage women in decision-making processes and governance bodies, especially as in contexts where women are taking on new economic roles. This is the case, for example, in many communities experiencing significant out-migration of men in search of alternative livelihoods. To account for these contextual variations, analysis must be informed by local communities in the local context and be complemented with up-to-date climate information.

While climate change can shape conflict dynamics, we must also consider that any future peace will play out in a changing climate as well. For peacemaking, peacekeeping or peacebuilding plans and strategies to be truly sustainable, they need to factor in climate change impacts at all policy stages: early warning and assessment, planning and financing, implementation, and monitoring.

Integrated approaches offer considerable opportunities. In conflict-affected or fragile situations, climate change adaptation and mitigation efforts can also offer entry points for peacebuilding – and vice versa. Peacebuilding activities can help to create trust, increase social cohesion and improve governance. All of these are required not only for peaceful societies but for successful climate change adaptation too. Co-benefits and synergies are achieved, for example, when communities that are affected by the same climate risks interact and work together. This can also help to ease potential tensions between communities. Lessons learned on the ground show that the benefits of climate change adaptation activities for livelihood and food security can enhance relations between people and the state and can be realized relatively quickly. ¹²



Photo 2: Deforestation on mountainside in Ab Balae Qazan region, Afghanistan, created a sleek surface for water to rush down to the valley. With the impact of climate change, people of Afghanistan are at high exposure to droughts, floods, and other natural hazards. 2019 © Maxime Paquin

^{12.}https://climate-security-expert-network.org/sites/climate-security-expert-network.com/files/documents/csen_research_paper_-linking_adaptation_and_peacebuilding_lessons_learned_and_the_way_forward_v2.pdf

THE IMPORTANCE OF CONSIDERING CLIMATE-RELATED SECURITY RISKS

Across the UN system, the linkages between climate change, peace and security are increasingly recognised as a priority issue. For example, the General Assembly recognized the possible security implications of climate change in 2009 in Resolution 63/281, the Economic and Social Council and the Peacebuilding Commission have held joint meetings to discuss climate and security challenges, and the Security Council adopted a thematic Presidential Statement in 2011 and more recently recognized the adverse effects of climate change among other factors on stability in several contexts, including the situations in West Africa and the Sahel, Central Africa and the Horn of Africa. In 2008, the UN Human Rights Council unanimously adopted Resolution 7/23, recognizing climate change as an immediate and far-reaching threat to people and communities around the world. Similarly, the UN Secretary-General has repeatedly emphasized that efforts to address climate change form a central part of his prevention agenda and called the climate emergency a danger to peace.¹³ Meanwhile, the IPCC stressed the threat climate change poses to human security.¹⁴

There is also increasing recognition that climate-related security risks impact women, men, boys and girls in different and unique ways. Climate change was first formally recognized as an important consideration for the Women, Peace and Security agenda in Security Council Resolution 2242 (2015). In 2018, the Committee on the Elimation of Discrimation against Women (CEDAW) adopted General Recommendation 37 on the Gender-related dimensions of disaster risk reduction in the context of climate change. In his 2019 Report on Women, Peace and Security, the Secretary-General declared an "urgent need" for better analysis of the linkages between climate change and conflict from a gender perspective. These examples illustrate the system-wide recognition of the need to integrate climate security considerations systematically into the work of the different UN pillars. From climate adaptation programming to energy transition policies, from poverty reduction to alternative livelihood projects, from the protection of displaced persons to the promotion of equal rights for women, and from the mediation of natural resource conflicts to peacebuilding activities: the cascading effects of climate change on human, national and international security touch every aspect of UN work. In order to be effective, responses must follow a holistic approach and be coordinated among entities.

What are action areas for the UN system?

1) EMPHASIS ON PREVENTION

The Agenda 2030 for Sustainable Development, the Paris Agreement, the Sendai Framework and the Sustaining Peace Resolutions all highlight the need for preventive action. It is increasingly evident that a holistic approach to prevention across the UN system requires addressing climate-related security risks as early as possible and across technical sectors. As climate change tends to compound existing vulnerabilities and threatens to overwhelm the coping capacities of States and communities, upstream efforts at sustainable development,

^{13.} https://www.un.org/en/events/peaceday/sgmessage.shtml

^{14.} https://www.ipcc.ch/report/ar5/wg2/human-security/

climate action and peacebuilding must be informed by a good understanding of the linkages between climate change and security or else risk failing to address the complex web of factors underlying conflict and insecurity. Addressing livelihood security or political exclusion today, for example, can enhance resilience and reduce the impact of future food price shocks brought on by climate change. Furthermore, integration of climate indicators and analysis into early warning systems and risk assessments are critical to develop a comprehensive understanding of risk factors and initiate early action.

2) CLIMATE-INFORMED PEACE AND SECURITY ACTIVITIES AND CONFLICT-SENSITIVE DEVELOPMENT

As climate change interacts with a broad range of socio-economic, gender, political and other factors, peacebuilding interventions need to be designed with these linkages in mind. A thorough assessment of the current and likely future impacts of cimate change on human systems can help ensure outside interventions remain effective over time and can also avoid unforeseen – potentially negative – consequences. In peace negotiations, for example when allocating climate-sensitive natural resources such as water and arable land between conflicting parties, this requires factoring in environmental conditions and possible climate-related impacts in order to reach long-lasting agreements and sustain peace. At the same time, climate adaptation programmes need to consider the wider impact of the injection of resources on societies to avoid reinforcing existing grievances and vulnerabilities. Recognizing the gender specific impacts of climate change and insecurity on women, men, boys and girls, and the importance of women's full and equal participation in peacebuilding processes, it is imperative that climate-security assessments and interventions mainstream gender considerations in all phases.

Additionally, an integrated approach to climate risks allows for synergies. As discussed further above, peacebuilding and climate adaptation should be considered together, enabling approaches that build peace in ways that take the present and future impacts of climate change into account, reducing populations' vulnerability and increasing their adaptive capacities.

3) INTER-SECTORAL COOPERATION, PARTNERSHIPS AND INFORMATION SHARING

The 2030 Agenda for Sustainable Development and the "twin" Sustaining Peace resolutions of the UN General Assembly and UN Security Council emphasize the importance of cross-sectoral cooperation. Climate-related security risks are one such area that is too complex to be addressed by any single actor. Integrated risk assessments require cooperation within and across different UN entities (and other partners) and a sustained exchange of information. To turn analysis into action, collaboration across traditional policy areas is necessary to foster integrated response strategies. For the UN system, Member States, regional organizations, and the international research community to be successful in addressing climate-related security risks, strategic partnerships need to be consolidated to leverage expertise and mobilize capacity. Crucially, participatory mechanisms must be established to address the needs and demands of affected communities.

4) LONG-TERM AND TRANSBOUNDARY APPROACHES

The pace at which climate change manifests varies greatly between slow onset (sea level rise, desertification etc.) and rapid onset (storms, floods etc.) phenomena. To capture the accumulative effects of climate change on peace and security, it is often necessary to take a longer-term lens. In practice, it may be challenging to integrate such longer term thinking into the shorter term analytical and planning processes typically found in the UN system. Creative approaches are needed to ensure over-the-horizon thinking can inform policy making.

Another way in which climate-related security risks challenge UN operations is the transboundary nature of their consequences. While the UN system is primarily built to work at the level of nation states, climate change cuts across boundaries and affects entire regions. UN entities are encouraged to strengthen transboundary collaboration and identify regional approaches to climate-related security risks.

Where can I get more information?

Across the UN system, a number of entities are already actively addressing climate-related security risks as part of efforts to implement their respective mandates. Knowledge management and/or policy divisions may be useful entry points within agencies to inquire about experiences to date and lessons learned.

In addition to the range of work underway in the different entities of the UN system, the Climate Security Mechanism (CSM) was established to leverage existing expertise and strengthen UN capacities for a systematic response to climate-related security risks. The CSM developed this briefing note and associated toolbox in collaboration with other partners with the aim of providing initial guidance in this emerging policy area.

The toolbox is designed to help the UN system develop a shared language and approach to the challenges brought on by climate-related security risks. The development of these documents is an iterative process and suggestions for how to improve them are welcome.

ANNEX 1: EXEMPLARY CASE STUDIES

AFGHANISTAN¹⁵

Many Afghans are highly vulnerable to the impacts of climate change due to their exposure to droughts, floods and other natural disasters, as well as their reliance on climate-sensitive livelihoods such as rain-fed agriculture and pastoralism. Forty years of conflict has further increased Afghanistan's vulnerability to climate change, the impacts of which help to create the conditions for continued violence. Currently, significant parts of the country are contested or controlled by the Taliban and other opposition groups. Mistrust, violence and division between ethnic groups as well as deep rural-urban divides impede governance.

Given the many drivers of conflict that are already at work in Afghanistan, it is important not to overstate a causal link between climate change and conflict. Nevertheless, there are a range of climate-linked sources of potential fragility that policy-makers in Afghanistan and the international community should be aware of:

- Climate shocks could worsen poverty, weaken governance and contribute to instability.
- · More frequent droughts could boost the drug economy.
- Scarcer water and arable land could increase community-level and inter-ethnic conflict.
- International tensions over transboundary water resources could undermine attempts to stabilise the country.
- Afghanistan's rich deposits of minerals used in renewable energy technologies, such as lithium, could become a source of political controversy.

These threats are not inevitable. They can be addressed and averted if the right measures and policies are put in place. In addition to the evident need to improve water and land management and enhance food security, there are a number of actions that could help to address the security risks presented by climate change:

- → Improving water and land management to better utilize these resources;
- → Investing in better monitoring systems to understand the complex impacts of climate change and providing more data that can inform responses;
- → Collaboration with neighbouring countries on climate-related challenges, particularly with regards to water;
- → Informing peace negotiations by expertise on the impacts of climate change and resource management; and
- → Considering climate security in UN interventions in Afghanistan to address the crisis more holistically.

^{15.}https://climate-security-expert-network.org/sites/climate-security-expert-network.com/files/documents/csen_climate_fragility_risk_brief_-_afghanistan_0.pdf

PACIFIC ISLANDS REGION¹⁶

In the Pacific region, displacement, forced migration and diminishing food and water resources have emerged as human security issues, while degrading ocean and land resources are undermining economic growth, health and productivity, livelihoods and employment, and thus national and regional stability. Climate change is projected to impact the region in multiple ways, including through increasing mean temperatures, salt water intrusion and coastal erosion, sea level rise and increased intensity of extreme weather events, e.g. cyclones. A range of critical climate-fragility risks emerge from these impacts, including:

- Increased displacement and forced migration due to sea-level rise, natural disasters, changing fishing stocks and more frequent droughts that undermine people's safety and livelihoods. Increased displacement and migration in turn can exacerbate existing social tensions, for instance over land.
- Threatened ocean resources such as coral reefs and fish stocks driving up food insecurity and geopolitical tensions.
- Sea-level rise impacts maritime zone boundaries which are critical for governance security and law enforcement, as well as natural resource management within and between countries in the Pacific.
- The Pacific is one of the most exposed regions in the world to natural disasters and one of the least insurable. Between 2016 and 2018, single tropical cyclone events have caused losses of 30% of GDP in Fiji and 64% of GDP in Vanuatu. Crime and violence often spike in the immediate aftermath of disasters, when nearby partners and security forces struggle to respond.

Pacific leaders have continually made clear that climate change represents the single greatest risk to the livelihood, security and wellbeing of Pacific people. The risk is increasing at a time when the Pacific region is already facing complex geopolitical dynamics and multifaceted security risks. Climate security risks that SIDS face require urgent adaptive action to avoid reaching tipping points of irreversible fragility, which present existential threats for Pacific people and indeed the very existence of many small and low-lying atoll nations. Entry points to address these threats are:

- → Providing financial resources through fit-for-purpose modalities;
- → Accelerating international cooperation and efficient development programs to manage climate change-induced migration;
- → Strengthening data collection, monitoring and early warning systems and improving understanding and knowledge of localised impacts and risks; and
- → Ensuring there is a clear, coordinated and efficient UN support system for the region and country-specific situations.

^{16.}https://climate-security-expert-network.org/sites/climate-security-expert-network.com/files/documents/csen_climate_fragility_risk_brief_-_pacific_islands_region_0.pdf

LAKE CHAD¹⁷

In the Lake Chad region, climate change and environmental degradation are making it harder for the farmers, fishers, and livestock herders in this pre-dominantly rural population to make a living. Increased livelihood and food insecurity interacts with widespread inequality, decades of exclusion, and political marginalisation and contributes to grievances between groups and between people and the state, increasing the risk of violence at all levels of society.

Armed opposition groups such as Boko Haram and the Islamic State West Africa Province exacerbate these tensions. In their battle for control, these armed groups and state security forces destroy or seize productive assets and block access to essential resources, including the lake itself. Four primary climate-related security risks have emerged as a result: Climate and conflict dynamics undermine livelihoods through the interplay between increased climate variability, large scale displacement of people, movement restrictions and weaker social cohesion.

- Competition for natural resources increases due to large numbers of displaced people, restricted access to resources and diminishing land availability.
- Recruitment into non-state armed opposition groups offers seemingly more viable livelihood opportunities, especially with climate change undermining already fragile economies and livelihoods.
- Heavy-handed military responses by the region's governments in response to the crisis have undermined livelihoods and climate change adaptation potential.

In order for people in the region to cope with these interlinked challenges, development and humanitarian efforts must be as integrated as the problems they seek to solve. In the Lake Chad Basin, climate adaptation efforts must be conflict-sensitive, which could lead to some unexpected choices. For example, agricultural projects learned that easy-to-store grains or crops are easily stolen by militant groups, and instead have pivoted to produce more perishable vegetables. Similarly, projects avoid planting maize varieties that could grow tall enough to provide hiding places for insurgents.

^{17.} https://shoring-up-stability.org/

NORTH KORDOFAN, SUDAN¹⁸

In parts of North Kordofan state, climate-related environmental degradation, weakening governance mechanisms, the expansion of mechanized agriculture, as well as spill-over insecurity linked to the protracted conflict on the border with South Sudan have led to: Increased competition for fertile land;

- Conflicts between resource user groups;
- Weakening local conflict resolution and governance mechanisms;
- · Shifting of pastoralist migratory patterns; and
- · Out-migration of men from farming communities.

Less well documented to date is the degree to which climate change and insecurity are contributing to important social shifts, particularly in the composition of rural communities. This includes a marked feminization of the resident population of some local communities that are on the frontlines of these dynamics.

While increasing the economic burden on women from all social groups, and exposing them to further risks of violence, these shifts also provide opportunities to strengthen women's leadership for conflict prevention and resolution, and to empower them to increase community resilience. A pilot project undertaken by UNEP, UN Women and UNDP provided important insights into these dynamics in the locality of Al Rahad.

The project undertook targeted interventions to support women from all groups to exercise their agency in local planning and decision-making processes governing the use of natural resources and to strengthen their role in the prevention and resolution of natural resource-based conflicts. Remarkably, it succeeded not only in increasing women's participation in natural resource governance, conflict prevention and resolution, but also in shifting perceptions of women's leadership, capacities and contributions in building a sustainable peace.



Photo3: Fetching water is predominantely carried out by women in Kordofan, Sudan. In many cases, the water has to be carried further than 1 km to the village. 2018 © Khalid Bahar

^{18.} UNEP, UNDP, UN Women, DPPA. 2020. "Gender, Climate and Security: Sustaining inclusive peace on the frontlines of climate change". https://postconflict.unep.ch/publications/Sudan_Gender_NRM2019.pdf