



Responding to climate change- related insecurity in the Lake Chad region

The role of the Regional Strategy for Stabilization, Recovery and Resilience of
the Boko Haram Affected area in the Lake Chad Region

**Authors: Cedric de Coning, Andrew E. Yaw Tchie, Freedom Onuoha,
Saibou Issa and Thor Olav Iversen**

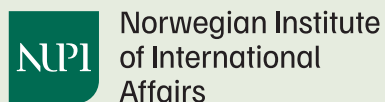
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Executive summary

The aim of this study is to contribute to generating evidence-based knowledge on the most effective strategies for preventing and managing climate-related conflict and instability. We focus on the Lake Chad region and its Regional Strategy for Stabilisation, Recovery and Resilience of the Boko Haram-affected Areas of the Lake Chad Basin Region (RS-SRR). We selected this case because the Lake Chad region is highly exposed to climate change and environmental stress, and the RS-SRR represents a concerted cross-border, multi-dimensional and multi-scale effort to improve the security and stability of the region.

We ask what influence has the regional strategy (RS-SRR 2019-2024) had on preventing and managing climate change related peace and security risks in the Lake Chad region, and which factors and efforts can explain the level of influence achieved.

We found that the implementation of the strategy has contributed to reducing armed group related violent conflict and fostered pathways toward recovery. However, climate and environmental stressors undermine the sustainability of gains recorded thus far and contribute to new inter-community conflicts. Our field research into the everyday lived experiences of people in the region reveal that the impacts of climate change and environmental degradation on livelihoods are significant drivers of instability. However, climate adaptation is insufficiently integrated within the RS-SRR and related stabilisation, resilience and recovery programming. There is thus untapped potential for climate change and environmental stress to serve as entry points for building peace and resilience. Pointing to an opportunity for leveraging the management of natural resources and benefits of environmental peacebuilding.

Overall, we have identified three implementation gaps. The first is a security-adaptation imbalance; stabilisation efforts have outpaced climate-security risk reduction. There has been gradual reduction of armed group related violence and partial resettlement, but the underlying drivers of climate change-related conflicts, including resource scarcity and livelihood erosion, remain largely unaddressed, and contributes to inter-community conflicts, such as farmer-herder clashes. The second is a design-localisation disconnect. While the RS-SRR is influential at the macro policy-level, its influence at the community and local levels is uneven, limited and unsustainable. Finally, there is an ambition-capacity mismatch. While the RS-SRR provides a sound strategic framework, its influence has been stabilising rather than transformative, due to its limited reach, weak localisation and lack of focus on climate resilience.

To address these gaps, we propose eight recommendations,

1. Prioritise livelihood resilience and recovery of adaptive productive capacity;
2. Institutionalise greater collaboration with community leaders;
3. Prioritise youth-focused livelihood and resilience programmes;
4. Integrate women and gender-responsive resilience programming;
5. Strengthen natural resource governance and environmental peacebuilding within stabilisation frameworks;
6. Strengthen localisation, community engagement and coordination of the RS-SRR;
7. Integrate Climate, Peace and Security tools to support the implementation of the RS-SRR;
8. Invest in broadening the reach, scale and scope of the RS-SRR.

Positioning climate change at the core of the strategy's analysis and placing livelihood resilience and adaptive productive capacity at the centre of its conflict prevention and stabilisation theory of change, could help reinvigorate the regional strategy and enhance its relevance for the region's populations and key stakeholders. Strengthening the climate change and environmental peacebuilding dimensions of the RS-SRR can generate new partnership opportunities and serve as a catalyst for attracting climate change-related funding.

1. Introduction

The effects of climate change are exacerbating existing vulnerabilities and increasing the risk of competition over land, water and food. In this study, the focus is on the effects of climate change in the Lake Chad region – Cameroon, Chad, Niger and Nigeria. Communities in this area are experiencing the compounding effects of violent conflict and climate-related extreme weather events on food, water and land security. In several areas, these stressors have led to seasonal mobility and in some cases forced displacement. In addition to the disruptive effects of worsening climatic conditions and the activities of armed groups like Boko Haram, the adaptive capacity of communities has been weakened by a long history of poverty, marginalisation and governance neglect.¹

The Sixth Intergovernmental Panel on Climate Change (IPCC) assessment confirms that climate change effects are intensifying, with global warming expected to reach or exceed 1.5°C within the next 20 years.² The IPCC report warns that with every additional increment of global warming, changes in regional climate extremes, such as heatwaves, droughts, and flooding, will increase in severity and frequency. Climate-related insecurity can thus be expected to increase, especially in those areas where community and government resilience are weak.³

The United Nations' New Agenda for Peace predicts that failure to tackle the challenges posed by climate change will have devastating effects on global, regional and local peace and security.⁴ Therefore, it is important to develop evidence-based knowledge on the most effective strategies for preventing and managing climate-related conflict and instability. The knowledge gained from this study is intended to help policy makers in the Lake Chad region, and others facing similar challenges all over the world, by increasing our understanding of which responses are more effective and why.

The countries bordering the Lake Chad region – Cameroon, Chad, Niger and Nigeria – in collaboration with the African Union (AU) and the Lake Chad Basin Commission (LCBC), developed a Regional Strategy for Stabilization, Recovery and Resilience of the Boko Haram-affected Areas of the Lake Chad Basin Region (RS-SRR) in 2018.⁵ The strategy, together with its enablers (such as coordination mechanisms, information systems and funding facilities) and related processes at the national and local government levels, provides this study with an interesting case of how one specific region has attempted to manage climate and environmental-related conflict and instability between 2019 and 2024. It is important to note that the Strategy was not originally designed as a climate-specific instrument but as a broader stabilisation framework.

¹ UNDP. 2025. Climate, peace and security in stabilization contexts in the Sahel. United Nations Development Programme, New York. Available at: <https://www.nupi.no/en/publications/cristin-pub/climate-peace-and-security-in-stabilization-contexts-in-the-sahel>

² IPCC. 2023. Sixth Assessment Report (AR6). Geneva: Intergovernmental Panel on Climate Change.

³ Ibid., Geneva: Intergovernmental Panel on Climate Change.

⁴ UNSG. 2023. New Agenda for Peace. Secretary-General of the United Nations. New York.

⁵ LCBC and AUC. 2018. Regional Strategy for the Stabilization, Recovery & Resilience of the Boko Haram-affected Areas of the Lake Chad Region. N'Djaména: Lake Chad Basin Commission and African Union Commission.



Figure 1: Map of the Lake Chad region (Carte de la region du lac Tchad). Graphics by: Jules Duhamel

The RS-SRR is a multistakeholder effort where the Governors of the territories bordering the Lake Chad Basin, together with traditional leaders and civil society, serve as key implementers of the strategy. The strategy is aimed at addressing both the symptoms and underlying drivers of instability across nine pillars, ranging from security to education. The strategy is an interesting case to study because it represents an attempt to go beyond stabilisation by including recovery and resilience in the overall framing of the problem and its solutions. It also serves as an example of a concerted effort to frame challenges and respond in ways that foster collaboration across multiple sectors and among local to global stakeholders.

It is important to note that while this study examines the influence of the RS-SRR on preventing and managing climate change related insecurity, it is recognised that the implementation of the regional strategy is the responsibility of the four governments. In addition, a Regional Stabilization Facility (RSF) was established to mobilise resources for the implementation of some of the elements of the RS-SRR, coordinated by the United Nations Development Programme (UNDP). The RSF received financial support from Germany, Sweden, the United Kingdom (UK), the Netherlands, the European Union (EU), and others. Another project that contributed to the implementation of the RS-SRR is the World Bank's PROLAC (Lake Chad Region Recovery and Development) project. In this study, we view the RS-SRR as a shared regional strategy that informs and guides the actions of all stakeholders across the eight territories and four countries in the Lake Chad region. This includes national governments, local authorities, traditional leaders, civil society organisations (CSOs), as well as international partners

working in the region, such as the World Bank, UN agencies, and bilateral donors. Our objective with this study is not to assess the effectiveness of the RS-SRR as if it was a project, but rather to analyse its influence as a strategy.⁶ In other words, we are interested in the extent to which the actions of the regional stakeholders and their international partners was influenced by the strategy, and whether their actions were more effective because they were aligned with a shared strategy.

The next section introduces the research question, the areas covered by field research and information about the study. This is followed by a section introducing the Lake Chad region and the regional strategy (RS-SRR). The main body of the report is an analysis of the influence of the regional strategy on mitigating and responding to the effects of climate change on insecurity in the Lake Chad region. The report ends with recommendations for key policy stakeholders in the Lake Chad region and their partners.⁷

⁶ The study was led by Research Professor Cedric de Coning of the Norwegian Institute of International Affairs (NUPI). Co-authors include Dr. Andrew E. Yaw Tchie and Dr. Thor Olav Iversen of NUPI; Professor Freedom Onuoha from the University of Nigeria-Nsukka, and Professor Saibou Issa from the University of Maroua in Cameroon. Eight field researchers contributed to the study by undertaking local interviews and contributing their analysis, including Professor Sambo Armel (Far-North Cameroon), Ms. Fatima Yerima Askira (Yobo State, Nigeria), Professor Nathaniel Kyale Dominic Danjibo (Adamawa State, Nigeria), Dr. Boukari Bintoumi Biri Kassoum (Diffa, Niger), Dr. Hadiza Fougou Kiari (Diffa, Niger), Mr. Allah-Kauis Neneck (Chad), Dr. Ngozi Stewart (Borno State, Nigeria), and Ms. Fanne Yaya (Bourgouma, Cameroon). Ms. Ingvild Brodtkorb of NUPI supported the coordination of the project and provided research and editorial assistance.

⁷ The study is part of the CPS-Lake Chad research project and is funded by the UK Foreign, Commonwealth and Development Office (FCDO) through the Cross-border Conflict Evidence, Policy and Trends (XCEPT) research fund. Other outputs include a report on the impact of the conflict in the Lake Chad region on the environment, an article introducing the Adaptive Peace Simulation which is a decision-making support tool developed for Lake Chad region policy makers, an article explaining the computational modelling technical aspects of the Adaptive Peace Simulation, and a report and policy brief on the Rapid Evidence Assessment that laid the foundation for these studies.

2. Methodology

The study utilised an exploratory research design process to explore and answer the following research questions: *(i) what influence the regional strategy (RS-SRR 2019-2024) has had on preventing and managing climate change-related peace and security risks in the Lake Chad region, and (ii) which factors and efforts can explain the level of influence achieved.*

It is important to note that the RS-SRR is currently in a second phase (2025-2030), but this study solely focuses on the first phase of the RS-SRR (2019-2024). Our starting point is a recognition that the nexus of conflict, stability, environmental degradation and climate change should be conceived of as relationships that form part of deeply interconnected social and ecological systems that function as complex adaptive systems.⁸ By employing the concept of socio-ecological systems we recognise that natural and human systems are intertwined, interconnected and interdependent and complex and adaptive.⁹ This theoretical framework has informed the research design and methodology of the study.

In the first phase of the CPS-Lake Chad-project the team took stock of the existing research on the impact of climate change on insecurity in the region through a rapid evidence assessment. It entailed virtual interviews and background conversations with key stakeholders involved in the design, implementation and support of the regional strategy, including on the margins of the fifth Lake Chad Governors' Forum that took place in Maiduguri in January 2025. To prepare for the fieldwork the project conducted an integrative literature review between January and March 2025. The literature review was complemented with two virtual validation workshops. The first validation workshop took place on 25 February 2025 in the form of a dialogue with representatives of civil society organisations and researchers based in the Lake Chad region. The second validation workshop took place on 3 March 2025 in the form of dialogue with the policy community that is engaged with the Lake Chad region, including representatives from the Lake Chad Basin Commission (LCBC), African Union (AU), United Nations (UN) system and international donors. The results of the rapid evidence assessment were published in January 2026.¹⁰

In the next phase of the project, the team conducted extensive fieldwork at both the policy and local community level between August 2025 and January 2026. At the meso and macro levels fieldwork was conducted in Abuja and Maiduguri in October 2025 and in N'Djamena in November 2025.¹¹ The fieldwork included 24 semi-structured interviews and two focus group with government officials,

⁸ Biggs, Reinette, Hayley Clements, Alta de Vos, Carl Folke, Amanda Manyani, Kristine Maciejewski, Berta Martín-López, Rika Preiser, Odirilwe Selomane, and Maja Schlüter. 2021. "What are social-ecological systems and social-ecological systems research?" In *The Routledge handbook of research methods for social-ecological systems*, 3-26. Routledge.

⁹ de Coning, Cedric. 2018. "Adaptive peacebuilding." *International Affairs* 94 (2):301-317.

¹⁰ Iversen, T. O., de Coning, C., Yaw Tchie, A. E., Issa, S., Onuoha, F., Koefoed, M., and Brodtkorb, I. B. 2026. *Managing Climate, Peace and Security Risks in the Borderlands of the Lake Chad Region* (REA Report). Norwegian Institute of International Affairs (NUPI) and Cross-Border Conflict Evidence, Policy and Trends (XCEPT). <https://www.nupi.no/en/publications/cristin-pub/managing-climate-peace-and-security-risks-in-the-borderlands-of-the-lake-chad-region-cps-lake-chad>

¹¹ Micro, meso, and macro levels represent a framework for analysing systems ranging from individuals to global structures. Micro focuses on individuals and small groups, meso addresses communities and organisations, and macro examines large-scale societal, institutional, and global systems. This approach is used in sociology, social work, and organizational analysis to understand how different scales of interaction affect one another.

security personnel (including staff of the Multinational Joint Task Force - MNJTF), diplomats, and policy professionals in regional and international organisations, including staff of the LCBC.

At the meso and micro levels, 313 interviews were conducted in December 2025 and January 2026. Eight researchers (4 female and 4 male) conducted interviews and focus groups in the eight territories neighbouring the lake across all four countries participating in the RS-SRR. Figure 2 shows the locations where the research took place, including Kousseri, Blangoua, Logone Birni, Bourgouma, Kidam, Kinambari, Blangoua-Bach, Madana in Cameroon; Bol, Bagasola, Matafo and Mitterine in Chad; Diffa, Bosso, Ngagam, Baroua, Garin Dogo, Alai Mainari in Niger; and Adamawa-, Borno- and Yobe states in Nigeria.

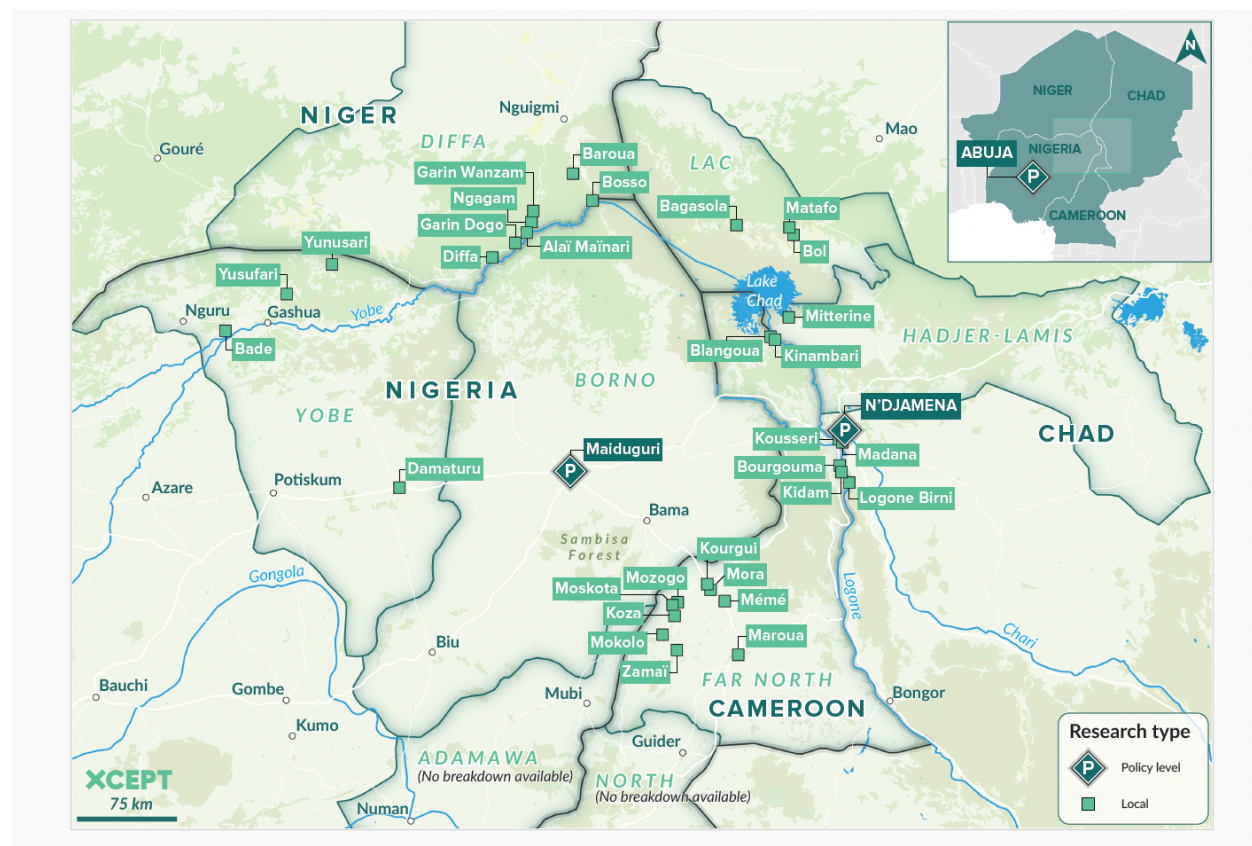


Figure 2: Map of interview locations in the Lake Chad region. Graphics by: Jules Duhamel

In states like Yobe State, interviews included Damaturu (state-level institutions and coordination actors) and community-based groups in northern Yobe (such as Geidam, Yunusari, Yusufari, and surrounding areas). Respondents comprised government ministries and agencies, humanitarian actors, security providers, civil society and community organisations, and affected groups like internally displaced persons (IDPs), returnees, pastoralists, farmers, youth, and persons with disabilities (PWDs). In Adamawa State, respondents came from the Ministry of Agriculture, the Ministry of Environment, the Ministry of Livestock Development, academics, a traditional ruler, security personnel, and the International Office of Migration (IOM), along with agencies such as the North-East Development

Commission, the agency overseeing the Sustainable Development Goals (SDGs), the Agro-Climatic Resilience in Semi-Arid Landscape (ACReSAL) agency, resettled IDPs, local NGO workers, and the Environmental Care Foundation. In Cameroon, data collection included areas like Maroua, Mora, Kolofata, Mémé, Zamai, Mokolo, Koza, Mozogo, and Moskota in the North and Far North regions; and in Niger, areas such as Diffra Region-N'guigmi. Interviews involved administrative and traditional authorities, civil society groups—including youth and women's associations—mayors, beneficiaries of development projects (PROLAC, PDRI, SEMRY), farmers, cattle breeders, including agropastoralists, academics from the University of Maroua, and regional and divisional staff from ministries responsible for agriculture, livestock, fisheries, fauna and flora, and the environment. The same stakeholder groups were interviewed in Chad. In the Diffa region of Niger, fieldwork was carried out in several localities, as listed above. In all these areas, observation aided in perceiving, visualising, and assessing climate impacts on livelihoods, resilience practices and climate conflict dynamics.

Field research limitations

This study faced several methodological and contextual limitations that influenced the scope, depth, and interpretation of the findings. First, identifying individuals knowledgeable about the RS-SRR proved challenging. Awareness of the RS-SRR among local and policy populations was uneven, limiting the pool of informed respondents and potentially constraining the diversity and representativeness of the perspectives captured. For example, at the macro level with policymakers and stakeholders it was clear that many people that the study engaged with knew or had some form of awareness of what the RS-SRR was or about. However, at the local and hyper local levels this was not the case. As a result, the limited respondent familiarity with the RS-SRR may constrain perception-based evaluation of the Strategy's influence. Thus, it is important to note that limited awareness of the RS-SRR at community level should not be directly interpreted as weak influence. In many cases services and projects may have been influenced by the regional strategy, but those implementing the activities on the ground, and those affected by these activities may not be aware of the link between the RS-SRR and related actions. Second, local narratives were shaped by recent and ongoing intercommunity conflicts often due to displacement, herders and farmers conflict or armed group behaviour. The tensions influenced how respondents framed their views which may have narrowed the range of responses and introduced bias linked to current conflict dynamics rather than longer-term or structural factors.

Third, access to certain areas was restricted due to security constraints, in some cases due to on-going insecurity and in others due to lack of authorisation from government officials. As a result, this introduced spatial and temporal limitations that reduced our geographic coverage and may have led to the underrepresentation of particularly vulnerable or remote populations. In certain areas, communities may have been recently displaced, while in other cases, people may have been continually displaced which may impact their memory and the accuracy of accounts. Fourth, language barriers in multicultural contexts posed translation and interpretation challenges. Despite the use of translators, nuances in meaning and culturally embedded expressions may not have been fully captured, potentially affecting the accuracy of the qualitative data. Fifth, women's participation was limited, and their contributions were often brief. Cultural norms, time constraints, and sensitivity around the subject matter may have inhibited more in-depth engagement, resulting in gendered gaps in the data. The underrepresentation of women in positions of responsibility (administrative, traditional, sectoral, etc.) creates a self-perpetuating cycle that directly undermines the overall representation of women in society. Finally, some populations showed little interest in participating in recurrent, repetitive interviews and studies they perceive as having little impact on their living conditions. This research fatigue led to evasive or generic responses, which may have reduced the richness, reliability and validity of certain findings.

To address the above limitations and strengthen the robustness of the findings, the study employed an adaptive research design approach.¹² The research design evolved through several iterative and collaborative stages, reflecting both methodological planning, ongoing feedback and induced learning throughout the project. Several mitigation measures were implemented throughout the research process.

First, the research questions were developed with partners in Nigeria and Cameroon¹³ to ensure contextual relevance and alignment across research teams. A pilot test with five respondents was conducted to assess clarity, consistency, and the practicality of the questionnaire. Feedback from this pilot phase led to revisions, highlighting the importance of reflexivity and flexibility in tool development. The interview and focus group instruments and the overall methodology were then finalised collectively. Researchers were encouraged to adapt the interview questions to local context, languages and knowledge. Snowball sampling techniques were used to identify individuals with knowledge of the RS-SRR. Local key informants, community leaders, and partner organisations helped validate respondents' familiarity with the topic and facilitated access to knowledgeable participants. In some cases, like Yobe and Borno state, a pre-existing list of respondents were interviewed due to their historic knowledge of the challenges of climate-related insecurity but also their interactions with the RS-SRR over the last few years.

Second, to reduce the influence of conflict-driven narratives, triangulation was applied by collecting data from multiple stakeholder groups, including community members, local authorities, civil society actors, and humanitarian partners. The approach helped balance subjective accounts and contextualise conflict-sensitive perceptions.

Third, security and access constraints were mitigated through flexible fieldwork planning, including remote data collection methods (such as phone interviews over WhatsApp and Signal). Where needed, field researchers would engage over the phone first before heading out to the selected regions to conduct interviews. Where displacement limited access to original communities, interviews were conducted with displaced populations in host locations to capture their perspectives.

Fourth, language and translation challenges were addressed by recruiting multilingual enumerators and researchers familiar with local dialects and cultural contexts. Interview guides were translated and translated again to ensure consistency, and researchers were trained to probe for clarity and verify the respondents' meaning during interviews.

Fifth, to enhance women's participation, gender-sensitive approaches were adopted. Half of the local researchers were female and 25 per cent of the total number of persons interviewed were female. Interviews and focus groups were conducted in safe and culturally appropriate settings and scheduled at times convenient for women and girls. Where possible, separate gender discussions were held to encourage more open and detailed responses.

¹² Tchier, Andrew E. Yaw, and Ingvild Brodtkorb. 2026. "Confronting Escalating Threats: Adapting Stabilisation for Africa's Twenty-first Century Security Challenge." *Critical African Studies*: 1-17.

¹³ Professor Freedom Onuoha from the University of Nigeria-Nsukka, and Professor Saibou Issa from the University of Maroua in Cameroon both served as researchers on the project and helped to shape the conceptualisation and refine research questions based on their historical and contextual knowledge of the region.

Sixth, to reduce respondent fatigue and improve data quality, interview tools were streamlined to avoid redundancy, and respondents were informed of the study's purpose and how the findings could inform programming and policy. Researchers also emphasised confidentiality and voluntary participation to foster trust and encourage more candid responses.

Finally, several drafts of the report were circulated among the researchers and key stakeholders for written and oral feedback and validation. This iterative review process supported collaborative knowledge production and helped ensure that the findings reflected both external and local perspectives.

Table 1: Location and Gender breakdown of interviews and focus groups; *Source: Field and Policy Researchers.*

Location	Male	Female	Total
Interviews at community, civil society and local authority level			
Borno State, Nigeria	31	14	45
Yobe State, Nigeria	26	12	38
Adamawa State, Nigeria	36	2	38
Diffa, Niger (Various sites 1)	41	5	46
Diffa, Niger (Various sites 2)	27	2	29
Far North, Cameroon	48	14	62
North, Cameroon	38	7	45
Bol & Baggasola, Chad	10	3	13
Interviews at sub-national, national and international level			
Maiduguri, Nigeria	11	3	14
Abuja, Nigeria	4	0	4
N'djamena, Chad	16	1	17
Total	252	61	313

3. The Lake Chad context

The Lake Chad region straddles the territories of Chad, Cameroon, Niger and Nigeria, and provides a lifeline to millions of people in the four riparian countries.¹⁴ Over the last four decades, climate change has impacted the Lake Chad Basin and its catchment area.¹⁵ In the mid 1970s, Lake Chad Basin experienced a significant decline in water volume due to poor water management, multiple climatic factors and hydrological drivers in its riparian countries. However, recent satellite data and research show that the lake has experienced a slight increase in water volume and surface area over the past two decades.¹⁶ The Lake's water supports regional economic activities, such as agriculture, mining, fishing, and crafting.¹⁷ Fishing, agriculture, livestock, and domestic water use consume the most lake water.¹⁸ The temperature across the Lake Chad Basin is increasing at an unprecedented rate.¹⁹ Consequently, there have been significant and frequent variability in inter-seasonal annual rainfall.²⁰ Rising temperatures in the region impact rainfall variability and uneven rainfall distribution, compounded by continuous drought.²¹ Some studies highlight rising temperatures in the region as endangering people's lives and livelihoods, including effects on livestock, cattle migration and broader food systems, while others have focused on environmental degradation and its negative impacts on livelihood, conflict and water resources.²²

¹⁴ Onuoha, Freedom C. 2010. "Climate change, population surge and resource overuse in the Lake Chad area Implications for human security in the north-east zone of Nigeria." *Climate change and natural resources conflicts in Africa*: 23-43.

Salkida, A. 2012. "Africa's vanishing Lake Chad." *Africa Renewal*. Usigbe, L. 2024. Drying Lake Chad Basin gives rise to crisis. *Africa Renewal*.

¹⁵ Coe, Michael T, and Jonathan A Foley. 2001. "Human and natural impacts on the water resources of the Lake Chad basin." *Journal of Geophysical Research: Atmospheres* 106 (D4):3349-3356.

Tchie and Brodtkorb. 2026.

¹⁶ Thiombiano, Lamourdia, and Ignacio Tourino-Soto. 2007. "Status and trends in land degradation in Africa." In *Climate and land degradation*, 39-53. Springer. Vivekananda, J., Wall, M., Sylvestre, F., & Nagarajan, C. (2019). Shoring up stability: Addressing climate and fragility risks in the Lake Chad region. Adelphi. <https://shoring-up-stability.org/wp-content/uploads/2019/06/Shoring-up-Stability.pdf> UNDP. 2017. "Lake Chad Basin - Stories of resilience and the path towards stabilization."

¹⁷ Emeribe, Chukwudi Nnaemeka, Christopher Uche Ezech, and Ali Williams Butu. 2021. "Climatic water balance over two climatic periods and effect on consumptive water need of selected crops in the Chad Basin, Nigeria." *Agricultural Research* 10 (1):131-147.

¹⁸ Ndehedehe, Christopher E, Vagner G Ferreira, and Nathan O Agutu. 2019. "Hydrological controls on surface vegetation dynamics over West and Central Africa." *Ecological Indicators* 103:494-508.

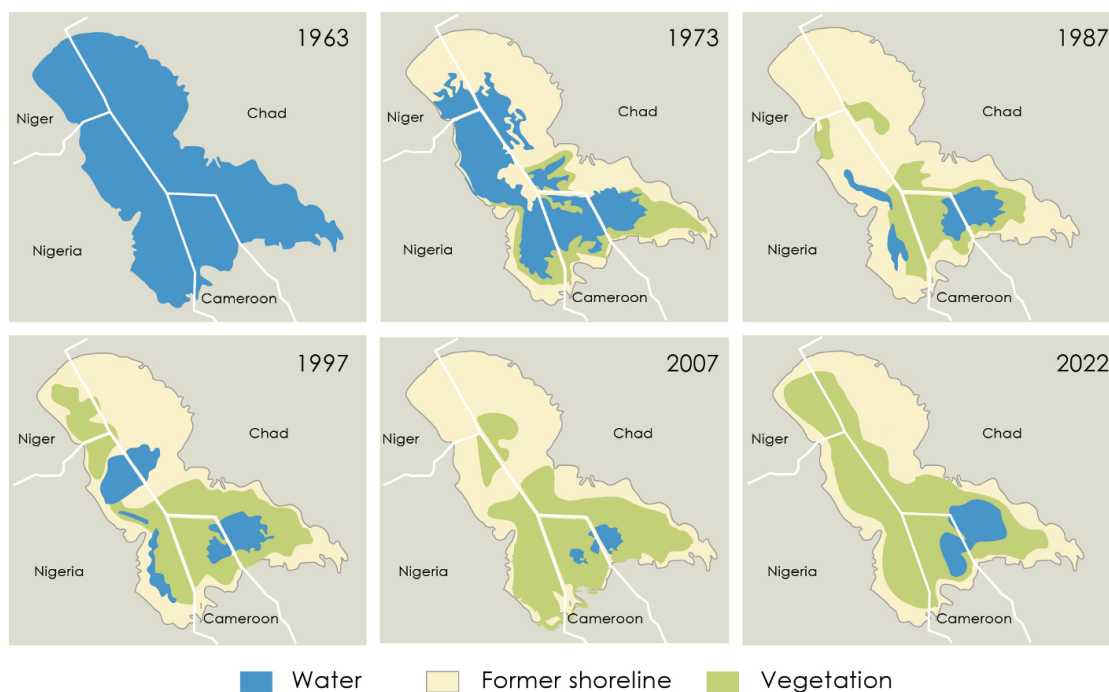
¹⁹ IPCC. 2023.

²⁰ Pattanayak, Kanhu Charan, Ahmat Younous Abdel-Lathif, KV Rathakrishnan, Muskan Singh, Renuka Dash, and Pyarimohan Maharana. 2019. "Changing climate over Chad: is the rainfall over the major cities recovering?" *Earth and Space Science* 6 (7):1149-1160.

²¹ Ibid.

²² Onuoha, Freedom C. 2008. "Environmental degradation, livelihood and conflicts: A focus on the implications of the diminishing water resources of Lake Chad for north-eastern Nigeria." *African journal on conflict resolution* 8 (2):35-61.

Onuoha, Freedom. C., Andrew E.Y. Tchie, and Mariana L. Zabala. 2024. Climate security, natural resource conflict, and community resilience in the Lake Chad Basin: A review of the literature. Training for peace: <https://www.nupi.no/en/publications/cristin-pub/climate-security-natural-resource-conflict-and-community-resilience-in-the-lake-chad-basin-a-review-of-the-literature>



This collection of maps has been sourced from a series of satellite images provided by NASA Goddard Space Flight Center:
<http://www.gsfc.nasa.gov/gsf/earth/envirom/lakechad/chad.htm>
 Initial map by Philippe Rekacewicz; updated by GRID-Arendal, 2026

Figure 3: The State of the Lake (1963 – 2022). Source: Graphics by GRID-Arendal, data from NASA

The effects of climate change in the region have led to the escalation of existing tensions in some areas, including a persistent farmer-herder crisis, intercommunal clashes, and ethnoreligious grievances, further exacerbated by reprisal attacks.²³ In addition to these issues are the harmful activities of violent extremist organisations, such as Boko Haram and its offshoot, the Islamic State in the West Africa Province (ISWAP), which operate throughout the region. A June 2021, United Nations Development Programme (UNDP) report revealed that violence associated with Boko Haram in Northeast Nigeria have directly and indirectly resulted in approximately 350,000 deaths.²⁴ Furthermore, they have contributed to the internal displacement of over 2.8 million people across the region.²⁵ The thousands of small islands that have emerged in the former lakebed have become refuges for insurgents, notably Boko Haram and ISWAP, and criminal organisations that exploit the vulnerabilities of local fishing communities. Boko Haram has coerced civilians into joining their ranks through fear and through incentives such as providing income and livelihoods. In contrast, ISWAP has in the past sought to earn the goodwill of communities, aiming to gather religious taxes (Zakat) through providing services and security rather than intimidation. Both Boko Haram and ISWAP have also evolved tactics of 'jihadi

²³ ICG. 2018. *Stopping Nigeria's spiraling farmer-herder violence* (Africa Report No. 262). International Crisis Group. <https://www.crisisgroup.org/africa/west-africa/nigeria/262-stopping-nigerias-spiralling-farmer-herder-violence>

²⁴ UNDP. 2021. Assessing the impact of conflict on development in North-East Nigeria. United Nations Development Programme. <https://files.acquia.undp.org/public/migration/ng/Assessing-the-Impact-of-Conflict-on-Development-in-NE-Nigeria---The-Report.pdf>

²⁵ OCHA. 2022. Lake Chad Basin: Humanitarian Snapshot (as of 12 September 2022). Geneva: United Nations Office for the Coordination of Humanitarian Affairs.

banditry', such as theft of valuable goods and livestock, extortion and kidnapping for ransom.²⁶ More recent research has also found that local vulnerabilities create a favourable climate for jihadist extremist recruitment of vulnerable local populations.²⁷ The groups have been able to leverage livelihoods as a vital bargaining chip, engaging with communities in a more strategic manner and focusing its attacks on security forces and humanitarian workers, demonstrating a deliberate approach to their operations.²⁸

Consequently, the Lake Chad Basin has transformed and shifted from its previous status as a rich resource capable of supplying food and water to a population to increasingly being affected by climate and security risks.²⁹ Ongoing challenges in the region over time include mass displacement, poverty, hunger, and a surge in population growth. There is decreased biodiversity, with many inhabitants struggling for livelihood and resources.³⁰

The Regional Strategy for Stabilisation, Recovery and Resilience (RS-SRR)

In response to the conflict in the Lake Chad region, the countries affected by the instability and several regional and international partners, under the leadership of the Lake Chad Basin Commission, and with support of the AU and UNDP, developed the RS-SRR. The evolving regional stabilisation initiative is not driven by top-down counter-insurgency campaigns, but rather by coordinated sub-national and multi-dimensional humanitarian, development and peace initiatives aimed at addressing the root causes of conflict. Consequently, the RS-SRR serves as an overarching framework that outlines its purpose, principles, and partners. The RS-SRR is managed through several mechanisms that coordinate the overall effort across several pillars of the HDP nexus. An annual governor's forum — that centre around the eight governors of the territories bordering Lake Chad in Cameroon, Chad, Niger and Nigeria — serves as the most important political platform for fostering dialogue, enhancing coordination and cross border cooperation, and reaffirming collective commitment to addressing the root causes of the multifaceted challenges facing the Lake Chad region. It also takes stock of progress and adapts the focus of the RS-SRR for the next implementation period.

The RS-SRR (2019-2024) outlined nine pillars of intervention with underlying strategic objectives to address these crises which are as follows: Political Cooperation; Security and Human Rights; Disarmament, Demobilisation, Rehabilitation and Reintegration of Persons associated with Boko Haram; Humanitarian assistance; Governance and the Social Contract; Socio-economic Recovery and Environmental Sustainability; Education, Learning and Skills; Prevention of Violent Extremism and Building Peace and Empowerment and inclusion of Women and Youth.

²⁶ Oginni, O.S. 2024. How to Stop 'Jihadi Banditry' from Becoming the New Normal in the Lake Chad Basin. Bonn International Centre for Conflict Studies (BICC).

²⁷ Aina and Ojo. 2025.

²⁸ ICG. 2020. What Role for the Multinational Joint Task Force in Fighting Boko Haram? Brussels: International Crisis Group.

²⁹ FAO. 2021. Evaluation of the FAO Response to the Crisis in the Lake Chad Basin 2015–2018. Available at: <https://www.fao.org/publications/card/en/c/CB3138EN/>. Rome: Food and Agriculture Organization; ACCORD. 2022. Fixing the Lake Chad crisis from the bottom-up. Available at: <https://www.accord.org.za/analysis/fixing-the-lake-chad-crisis-from-the-bottom-up/>. In *Conflict & Resilience Monitor*; Freedom, C Onuoha, Andrew E.Y. Tchie, and Mariana L. Zabala. 2024. Climate security, natural resource conflict, and community resilience in the Lake Chad Basin: A review of the literature. Training for peace. Available at: <https://www.nupi.no/en/publications/cristin-pub/climate-security-natural-resource-conflict-and-community-resilience-in-the-lake-chad-basin-a-review-of-the-literature>

³⁰ Zieba, Felix Watang, Genesis Tambang Yengoh, and Abdouraman Tom. 2017. "Seasonal migration and settlement around Lake Chad: Strategies for control of resources in an increasingly drying lake." *Resources* 6 (3):41.

The strategy aims to enable horizontal linkages across pillars to allow for synergies, national and local ownership and contextualised responses. Four clusters were used to organise the planning for implementation at the territory level and formed the structure for the development of the Territorial Action Plans (TAPs).³¹ The clusters included: 1) Governance (Including the Political Cooperation, Governance and Social Contract, and Empowerment and Inclusion pillars); 2) Security and Protection (Including the Security and Human Rights, Disarmament, Demobilisation, Rehabilitation, Reinsertion and Reintegration (DDRRR), and the Prevention of Violent Extremism (PVE) and Building Peace pillars); 3) Development and Humanitarian (Including the Humanitarian Assistance, Socio-economic Recovery and Environmental Sustainability, and Education learning and Skills pillars); and 4) Cross-Border Interventions cluster that is supposed to work across all the pillars. The second phase of the RS-SRR was approved in February 2025 following a strategic review of the first phase with a revised strategy.³²

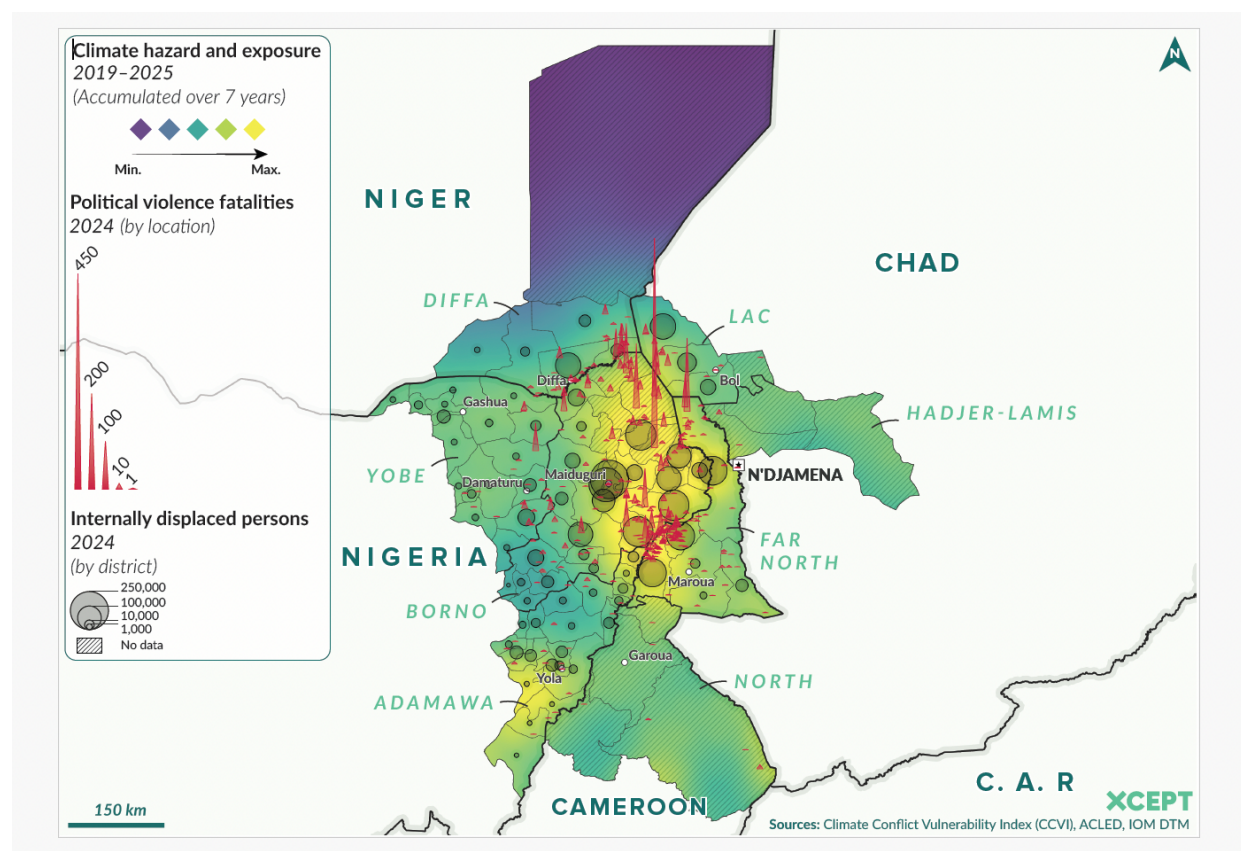


Figure 4: Climate-hazard, political violence fatalities and internally displaced persons. Source: Climate hazards correspond to the accumulation of droughts, heatwaves, heavy precipitation, wildfires, floods, and tropical cyclones over 7 years (2019-2025). Political violence includes battles, explosions & remote violence, riots, and violence against civilians. Graphics by: Jules Duhamel

³¹ GIST. 2024. Strategic review of the Regional Strategy for the Stabilization, Recovery and Resilience of the Boko-Haram-Affected Areas of the Lake Chad Basin. In Final Report.

³² The adjusted RS-SRR (2025, p. 13) has moved away from the concept of pillars of intervention and replaces it with (four) strategic areas that intend to provide a holistic and transformative response to the crisis in the Lake Chad region. Each strategy is, in turn, accompanied by several intermediate objectives and outcomes. The four strategic areas include, 1. Sustainable Peace and Security; 2. Durable Solutions and Protection; 3. Socio-Economic Recovery and Livelihoods; and 4. Regional Cooperation and Governance.

4. Analysis and Findings: The influence of the regional strategy on climate-related insecurity

In this section the insights gained from the field research are presented and examined against the objectives of the RS-SRR. The section starts by first presenting the perceptions that the respondents shared of their lived experiences of the impact of climate change on both their livelihoods and security. The section then moves to analyse the influence of the regional strategy on mitigating these effects.

The impact of a changing climate

Insights from the fieldwork indicate that the people living in the Lake Chad region are significantly impacted by the effects of climate change. In Borno state, interviews confirm that climate change, peace and security are not experienced as separate challenges by affected populations or frontline institutions.

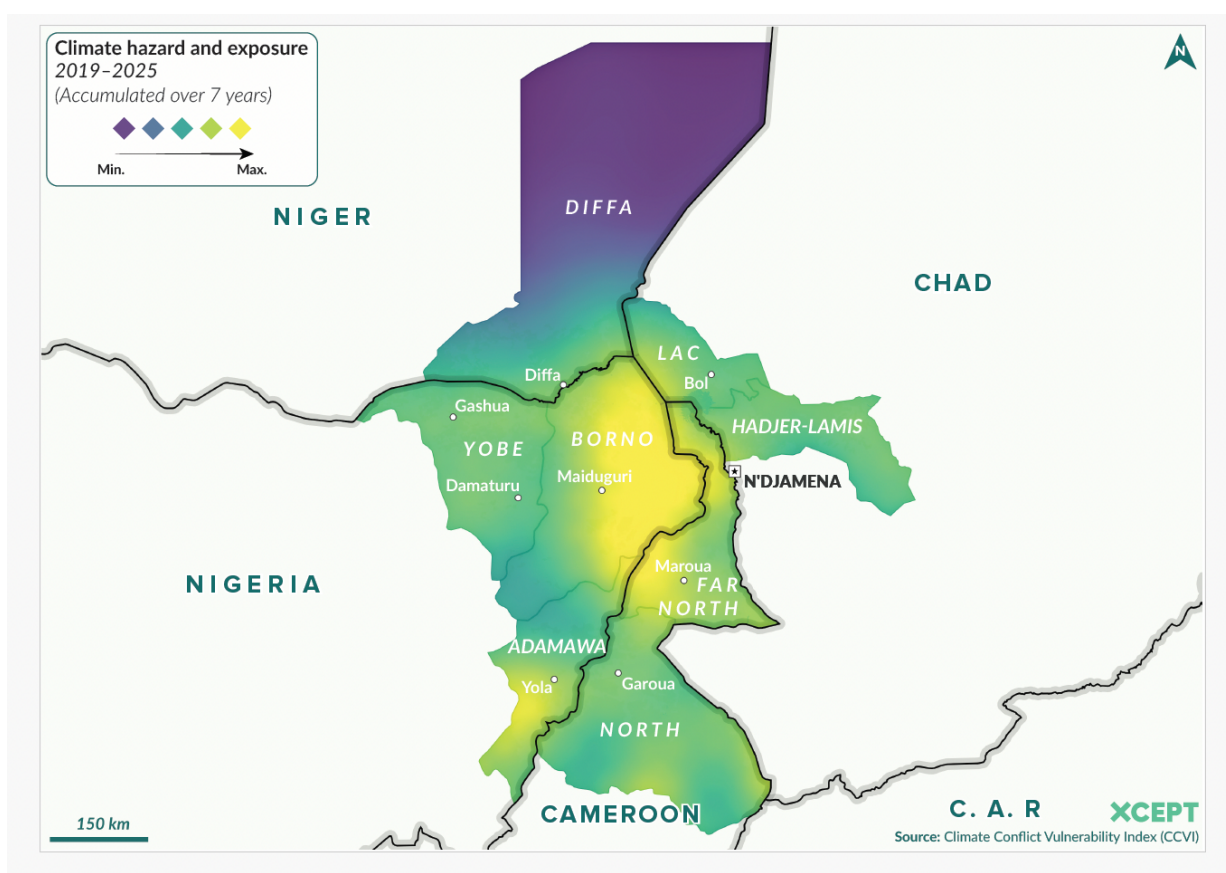
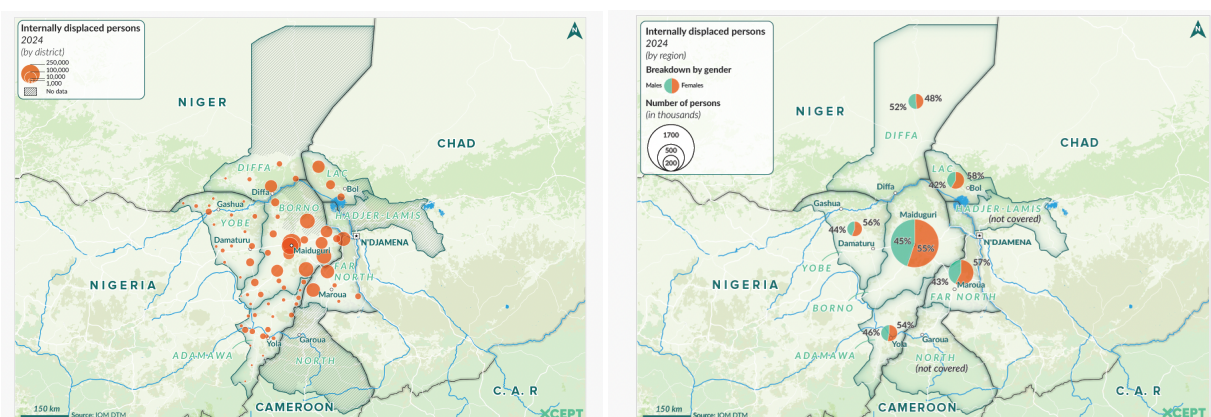


Figure 6: Climate hazard and exposure (2019-2025). Source: Climate hazards correspond to the accumulation of droughts, heatwaves, heavy precipitation, wildfires, floods, and tropical cyclones over 7 years (2019-2025); Graphic by: Jules Duhamel

In rural areas, they experience the effects of climate change as repeated floods, crop losses, unpredictable agricultural seasons, water scarcity, and uncertain incomes. Crucially, the interviews demonstrate that climate change does not operate as an autonomous or deterministic driver of conflict. Instead, its peace and security implications are mediated by security conditions, access to livelihoods and governance capacity. These findings validate the RS-SRR's conceptual framing of climate change as a risk multiplier rather than a direct cause of conflict. Overall, stakeholders described a context of layered vulnerability; climate stressors (drought, rainfall variability, flooding, sand-dune encroachment, strong winds, rising temperatures, ecosystem degradation and blocked water channels) are interacting with conflict and insecurity, displacement/return dynamics, fragile services and livelihood instability.³³

Additionally, military officials and personnel, communities, local government authorities and other actors also indicated that the sand dune encroachment and desertification were growing threats that result in the loss of productive land, rising costs of water access, and increased migration pressures.³⁴ The combined effects are seen in shrinking agricultural and grazing spaces, and rising competition over water and land.

In the Lake Chad Basin, environmental degradation, conflict, and economic instability lead to volatility in market prices, increased protection risks for women and girls, and heightened frustration among youth due to limited livelihoods. In Adamawa State, a major source of conflict is related to land ownership. The effects of climate change exacerbate the competition for resources between farmers and herders, especially over land and water. The challenge has widened to cases of kidnappings and abductions of farmers, youth and women. In the affected areas of Northeast Nigeria and the Far North of Cameroon, the felling of trees, as a basic source of energy for cooking, presented itself as a major issue both for host communities, IDPs and local government who were trying to enforce policies designed to reverse the impact of deforestation.



In Diffa in Niger, Lac and Hadjer-Lamis in Chad, and the Far North Regions of Cameroon, interviews reveal that land issues are persistent and fundamental, though they manifest differently across regions. Land degradation from erosion and drought reduces arable land everywhere, while access and vulnerability also depend on demographic pressures and land governance. For instance, in Cameroon's Far North, particularly near the Mandara Mountains, dense populations occupy stony terrains, necessitating terraced farming. There are significant migrations to the Adamawa, North, and East regions of Nigeria. Respondents that were interviewed often linked land access constraints to cross-border migration, some of which predate Boko Haram's rise. Understanding these dynamics can help to comprehend why many young people in these regions initially responded to Boko Haram's financial offers at the start of the insurgency.³⁵

In Logone-and-Chari, the dense concentration of farmers, herders, and fishermen in the floodplains sparked violent clashes in 2021 between the Kotoko and Mousgoum communities, displacing thousands who sought refuge in Chad or relocated to Diamaré. Boko Haram used access to Lake Chad resources to exert ecological blackmail and influence over nearby populations. In other cases, additional levies were extracted to fund the organisation's activities. The southward movement of pastoralists and border security challenges have concentrated natural resource exploitation in drought- and flood-affected zones, fuelling conflicts, arming of herders, and the emergence of self-defence groups along pastoral routes. In Chad, elite actors acquire large, fertile lands which has resulted in diminished available farmland, heightened tensions and occasionally caused forced displacements.

Respondents frequently mentioned rising temperatures, erratic rainfall, desertification, and flooding as notable climate change stressors across the region. In 2023, for example, heat waves caused the deaths of dozens of people in the Far North region of Cameroon. Several camps for displaced persons in Mora and Mokolo experienced very serious fires.³⁶ Climate shifts have led to crop failures and productivity losses, exacerbating livelihood insecurity and competition for scarce resources. The ecological stress has intersected with armed conflict and economic marginalisation and heightened vulnerability among pastoralists, farmers, fishers, and urban-rural communities alike. Overall, climate change-related environmental stressors have amplified livelihood insecurity, which in turn acts as a threat multiplier for community tension (especially between displaced and host populations),³⁷ conflict between hitherto complementary livelihood groups (farmers and herders) and recruitment into violent groups such as criminal gangs and extremist organisations, such as Boko Haram/ Jama'at Ahl al-Sunna li al-Da'wa wa al-Jihad (JAS) and Islamic State West Africa Province (ISWAP).

The impact of conflict on the environment seems to have played a dual role. For example, the Zamai Internally Displaced Persons (IDP) camp and the Minawao refugee camps (located in Mokolo subdivision) in Cameroon's Far North region, along with the adjacent Zamai Forest Reserve, are facing severe environmental degradation due to the combined pressures of armed conflict, population influx, and the critical need for fuel. The Zamai Forest Reserve has witnessed significant destruction, with trees being felled by both displaced persons in search of survival resources and, in broader regional contexts, by armed groups, causing the forest to rapidly disappear. The reserve is now disappearing due to the felling of trees by refugees and IDPs in the area. Military operations have also cleared high vegetation areas and forest areas where criminal gangs and extremist organisations hide. For example, drone

³⁵ Freedom C. Onuoha. 2012. "Boko Haram's Tactical Evolution," African Defence Forum 4, 4.

³⁶ Refugees International. 2023. Climate-fueled Violence and displacement in the Lake Chad Basin. Available at: <https://www.refugeesinternational.org/reports-briefs/climate-fueled-violence-and-displacement-in-the-lake-chad-basin-focus-on-chad-and-cameroon/>

³⁷ The analysis across the affected areas frequently picked this up that when IDP communities are forced into small inhabitants with no support or resources and are then forced to cut down local forestation as a means of survival.

footage shows the impact of military artillery on the environment, which has destroyed areas during counter terrorism operations.³⁸ On the other hand, in areas where the military have not operated, or where communities have fled from armed groups, there is a rejuvenation of the land and the Lake.³⁹

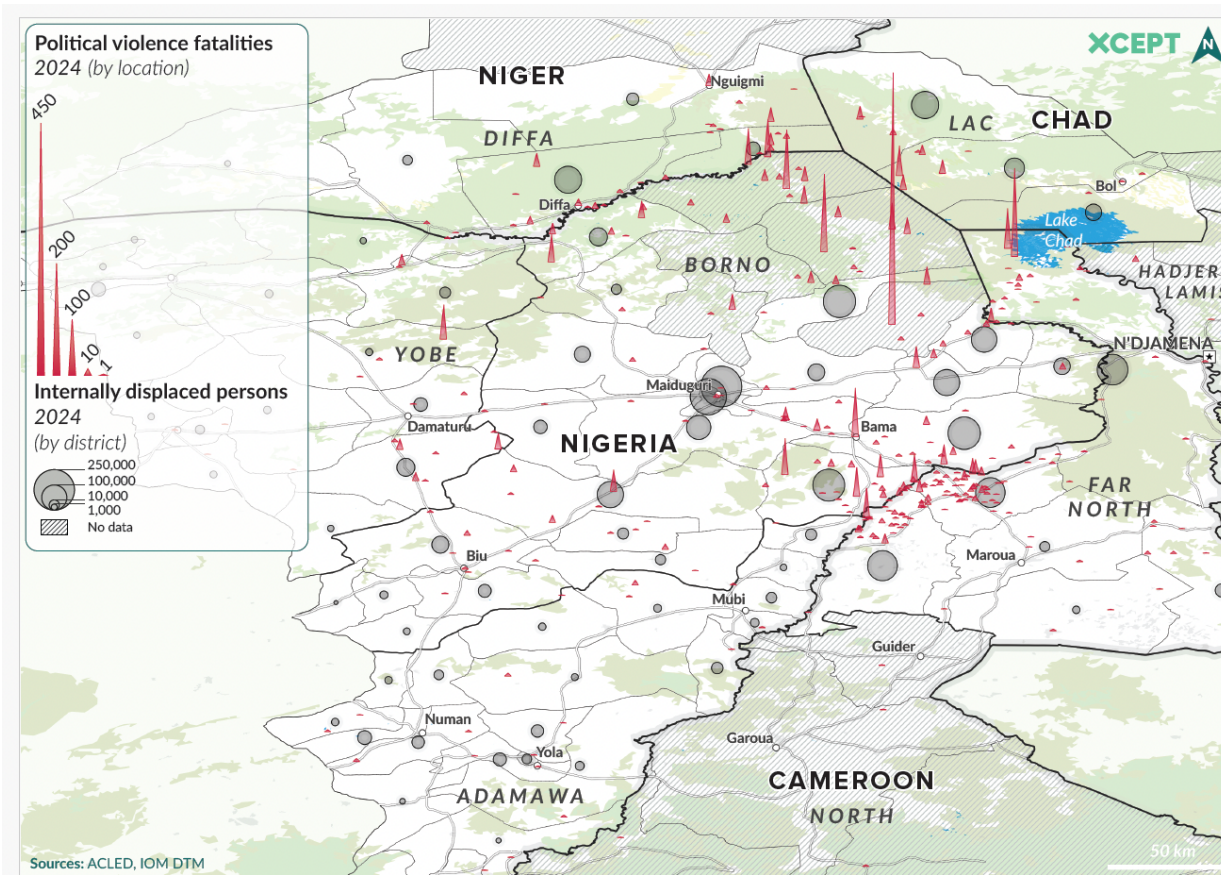


Figure 8: Political violence fatalities and internally displaced persons. Source: Political violence includes battles, explosions & remote violence, riots, and violence against civilians; Graphic by: Jules Duhamel

Interviews in the Diffa, Hadjer Lamis, and Lac regions and in N'djamena show that the under-exploitation of the Lake's resources and its banks have allowed for regeneration of fish species (numbers and maturity), pastures, and lands that had been exhausted by human activity for several years. The fear of kidnapping for ransom helped in preserving the environment, especially the forests areas as people are afraid to go into the forests to fell trees. Around villages, large fertile lands are abandoned because insurgents loot food and other commodities from farmers.

In the Logone and Chari in Far North areas of Cameroon and neighbouring Chari Baguirmi area where N'Djamena is located, rainfall fluctuates and sometimes the rainy season hardly last two months in a

³⁸ Interview 005: 14/01/26

³⁹ Interview 004: 13/01/26

year which impacts vegetation.⁴⁰ The irregular and sporadic rainfall and seasonal pattern changes affect agricultural productivity, and overall ecosystem stability, increasing vulnerability for communities that depend on rain-fed livelihoods. In the same vein, communities in Song, Hong, Madagali, Fufore and Numan in Adamawa State are exposed to deforestation and constant flooding. In the field locations, desertification and sand-dune encroachment were described as burying farmland, blocking irrigation channels and access routes, and forcing livelihood adaptation. Communities reported increasingly unreliable rainfall, recurring drought episodes, and flood events that damaged infrastructure and worsen dry season farming and water stress. It intersects with governance deficits, economic marginalisation (of vulnerable populations) and a lack of livelihood support opportunities and social fragmentation. In particular, the region's vulnerability to climate change effects is deepened by limited access to markets because of attacks by armed groups and curfews and restriction of movements by the military, poor infrastructure (drainage systems),⁴¹ and weak institutional capacity to translate climate adaptation into conflict mitigation. These conditions complicate both peacebuilding, stabilisation and development interventions, making the implementation of the RS-SRR's task especially challenging.

The interviews reflected a clear demand for practical, locally anchored solutions that connect climate adaptation to peacebuilding and service delivery. Stakeholders pointed to promising practices (e.g., negotiated access routes, local early warning and disaster response structures, and youth peace clubs), but noted gaps in sustainability, inclusion, coordination at the local government level, and limited access to finance and agricultural resources for climate-resilient livelihoods. Respondents consistently emphasised that activities through various interventions coordinated through the RS-SRR framework have relevance, but their influence is uneven across geography and population groups and constrained by capacity limitations, donor-dependence, and weak 'last-mile' ownership by local government authorities and communities.

The views of respondents reveal that the climate–conflict nexus in the Lake Chad region is not linear but complex and multidimensional. Peace and security risks were framed less as a single 'climate -conflict' storyline and more as an interaction of stressors; livelihood shocks reduce household coping capacity; scarcity and displacement increase competition over land and water; and insecurity and weak enforcement enable opportunistic violence and criminality. This creates a risk environment in which local disputes (over grazing routes, farmland boundaries, water points, markets and services) can escalate rapidly, especially where mediation capacity is weak or where youth feel excluded from opportunity. For example, stakeholders consistently described northern Yobe as a frontline zone of environmental pressure, with climate variability and ecosystem degradation intensifying over time. The same effect has been observed in Logone and Chari where the underlying driver of recurrent intercommunity conflict about chieftaincies, political representation or market allocation, is related to environmental stress. For example, the control of land in a semi-arid zone experiencing climate change-related environmental stress shapes identity, perceptions, and attitudes.

⁴⁰ Reflection from field notes; Gafny, S., & Djibo, A. 2023. Rainfall patterns and water resources in Chari-Baguirmi, Chad. *Environmental Earth Sciences*, 82(11), 1–12; UNICEF. 2024. *Climate landscape analysis for children in Cameroon*. United Nations Children's Fund, Cameroon.

<https://www.unicef.org/cameroon/media/2546/file/climate%20landscape%20analysis%20for%20children%20in%20Cameroon%202024.pdf.pdf>; Mahé, G., & Paturel, J. E. 2017. *Hydrology and rainfall variability of the Logone-Chari basin*. Directory of Open Access Journals. <https://doaj.org/article/f5db3ec9471147feba64d9c7b520922>

⁴¹ As a result, of attacks by terror groups and curfews and restriction of movements by the military

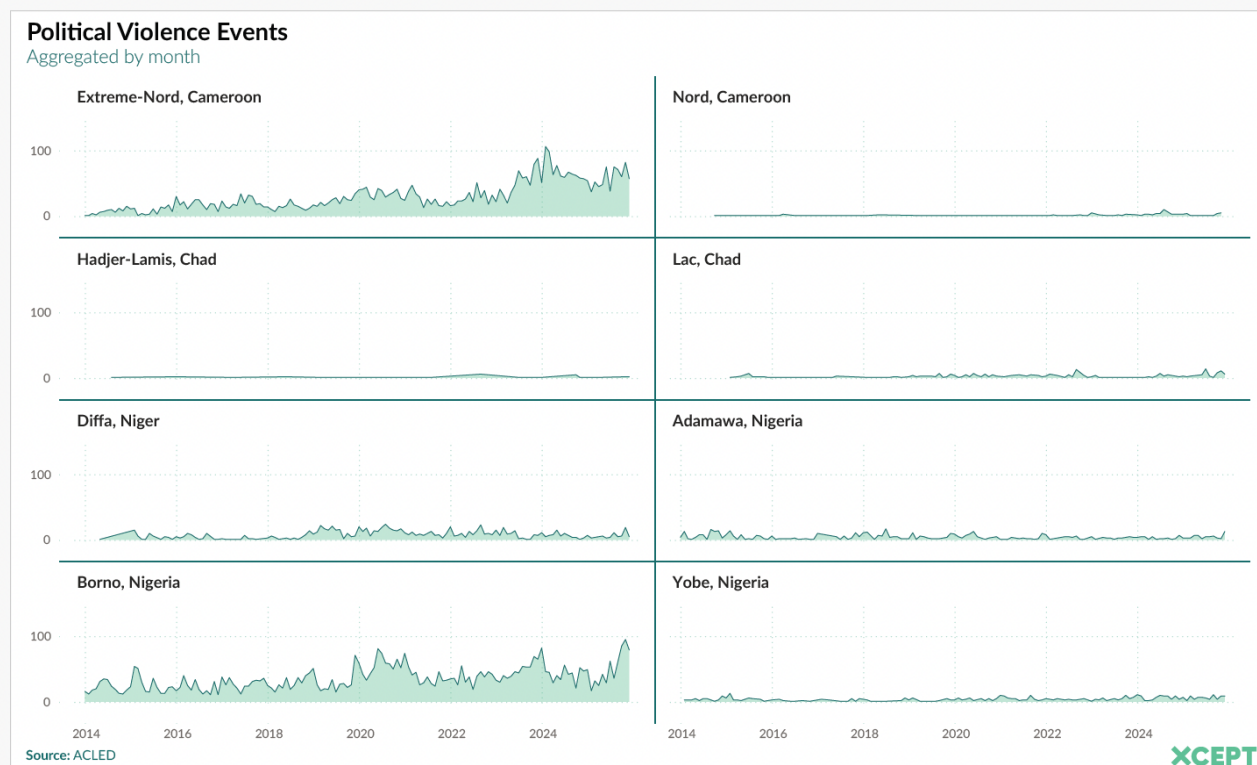


Figure 9: Political Violence Events across the 8 territories. Source: All events linked to political violence over time, aggregated by month. This includes battles, explosions & remote violence, riots, and violence against civilians. Graphic by: Jules Duhamel

Evaluation of the RS-SRR design and its strategic objectives concerning climate, peace, and security

The RS-SRR is designed to address the short, medium and long-term needs of the region towards stabilisation, recovery and resilience in the affected areas. It underscores regional cooperation, multi-stakeholder engagement, and cross-border coordination in peace, security, and development interventions.⁴² The first phase of its implementation (2019-2024) focused on establishing security, restoring essential services, promoting basic livelihoods, and facilitating institutional coordination among member states and partners, anchored across the nine pillars introduced in section 3.

The RS-SRR does not treat climate change adaptation as a standalone pillar. Instead, climate change responses are designed to be mainstreamed as climate-related peace and security risks across governance, livelihoods, humanitarian action, and preventing violent extremism (PVE), with a particularly strong emphasis on climate-proofed development, resilience-building, and cross-border cooperation. Synthesising from the ideas and insights collected from fieldwork, Table 2 captures how each RS-SRR pillar is tangentially connected to climate-related drivers of insecurity by linking governance, security, livelihoods, and social resilience to peace outcomes across the Lake Chad region.

⁴² LCBC and AUC. 2018.

Table 2: RS-SRR Pillars and Climate-Related Peace and Security Relevance

RS-SRR pillar	Core focus of the pillar	Linkages with climate-related peace & security (Articulated from fieldwork evidence)	Field interview findings	Contribution to climate-related peace & security	Factors explaining level of influence	Fieldwork evidence
1. Political cooperation	Cross-border political coordination through LCBC, AU, Governors' Forum, and RECs	Enables regional governance of shared climate risks, including transboundary water management, climate-induced migration, and cross-border resource conflicts aggravated by droughts and floods. Implementation of regional resilience projects, regional transhumance agreements as a solution to water and pastures scarcity. Supports coordinated responses to climate stress that fuels insecurity.	At the political level it was indicated that the RS-SRR was able to reach both the national and state level elites who were included and incorporate as part of the overall strategic thinking of the RS-SRR as well as its delivery. However, at the local and hyper local levels there was not an awareness of what the political corporation were and often communities or individual knew about broader activities but did not associate these with the RS-SRR. Often most respondents linked activities with humanitarian organisations they encountered.	Improved dialogue among local authorities reduced tensions linked to transhumance routes and water access.	Coordination, LCBC facilitation, governors' forums, and trust built through joint planning.	Interviews with community leaders and officials
2. Security and human rights	Military operations, civilian protection, rule of law, and rights-based security	Climate shocks (droughts, floods) intensify insecurity and displacement; rights-based security helps prevent climate stress from escalating into violence, protects livelihoods, and avoids grievance-driven radicalisation	Overall, respondents indicated that security through stabilisation efforts had made a difference to the lives of communities in the affected areas. Respondents indicated that they were able to return to their homes, take up old and new activities such as farmer and resume some form of normality.	Reduced abuses at checkpoints and CIMIC improved community cooperation during climate stress periods.	Human rights training and civil-military engagement.	Security personnel interviews, NGOs, Youth and Women CSOs

RS-SRR pillar	Core focus of the pillar	Linkages with climate-related peace & security (Articulated from fieldwork evidence)	Field interview findings	Contribution to climate-related peace & security	Factors explaining level of influence	Fieldwork evidence
			There was a sense that some level of dignity for people had returned but it was also noted that climate change was increasingly impacting on social cohesion which consequently created new or added to existing challenges with security at the local level. At the regional level the formation of the MNJTF which supports the RS-SRR was identified as a positive development which had reduced armed group presence and activities, created garrison towns and allowed some level of normalcy to return.			
3. Screening, Prosecution, Rehabilitation and Reintegration (SPRR)	Handling persons associated with Boko Haram and other armed groups	Climate-related livelihood collapse is acknowledged as a push factor into extremism; reintegration programmes linked to skills and livelihoods reduce vulnerability to climate-security traps	Access to arable land recognised as the most important means for successful reintegration.	Livelihood support lowered relapse risks linked to climate-driven poverty.	Skills training, reintegration kits, IGAs and community acceptance mechanisms	Reintegration programme beneficiaries
4. Humanitarian assistance	Life-saving aid, access, and protection	Addresses climate-exacerbated humanitarian needs (food insecurity, floods, drought-induced displacement) and prevents competition	Access to land as the prerequisite for durable solutions for displaced people but limited by the scarcity of exploitable lands; soil and vegetation rehabilitation prevent conflicts and reduce	Timely food and flood response prevented resource-based violence.	Partner coordination and early needs assessment	Humanitarian actors' FGDs

RS-SRR pillar	Core focus of the pillar	Linkages with climate-related peace & security (Articulated from fieldwork evidence)	Field interview findings	Contribution to climate-related peace & security	Factors explaining level of influence	Fieldwork evidence
		over scarce resources from triggering conflict	rural exodus that contribute to urban insecurity, highway banditry and enrolment by extremist groups.			
5. Governance and basic services	Restoring state presence, social contract, accountability	Weak governance undermines adaptation to climate variability; improved governance strengthens local capacity to manage environmental shocks and resolve resource disputes peacefully	Rehabilitation and construction of basic social services, police, gendarmerie contributed to the return of thousands of refugees and displaced people. State presence favour trade and other non-natural resources-based activities that help households to cope during dry season.	Local dispute resolution capacity improved around land and water use. The deployment of more staff in related services	Restored local administration and traditional authority roles.	Local government interviews
6. Socio-economic recovery and livelihoods	Farming, fishing, livestock, value chains, infrastructure	Explicitly calls for climate-proofing all development investments, resilience-building, and adaptation to droughts, floods, and desertification – directly tackling climate-security risks	Sponsoring income generating activities, providing agricultural inputs and tools, building stores and conservation facilities, upscaling from subsistence to commercial production, providing tricycles for products evacuation to markets, training and supporting transformation of local products contribute to resilience in selected communities affected by the insurgency.	Climate-resilient farming reduced farmer-herder conflict.	Inputs support, irrigation, and extension services.	Farmer and fisher FGDs
7. Education, learning and skills	Education recovery, vocational training, youth employment	Builds adaptive capacities and alternative livelihoods, reducing youth vulnerability to	Several of the youth respondents indicated that they returned to their communities eligible for	Vocational skills reduced youth recruitment	NGO-led skills programmes and stipends.	Youth focus groups

RS-SRR pillar	Core focus of the pillar	Linkages with climate-related peace & security (Articulated from fieldwork evidence)	Field interview findings	Contribution to climate-related peace & security	Factors explaining level of influence	Fieldwork evidence
		climate-induced insecurity and extremist recruitment	support from the Regional Stability Facility (RSF) and they were able to develop agricultural activities using new and smarter techniques that enhance productivity, secure more revenues and be less sensitive to joining armed groups. While several indicated that women, youth and those with disabilities were provided with support often the support was very limited and did not do much beyond farming, small business support or working with CSO/ NGOs. In essence the education learning and skills needed to include more adaption and social economic support which would allow communities to adapt to current and future challenges and not past issues that may have arisen almost a decade ago.	during drought shocks.		
8. Prevention of violent extremism (PVE)	Community resilience, early warning, peace architecture	Recognises that climate stress heightens competition over land and water, which extremists exploit; early warning and community peace	Dialogue on access to land for the youth, early warning mechanisms developed and trained in Hadjer Lamis, Lac and Far North to be implemented under local	Early warning reduced escalation of climate-related disputes.	Community peace committees and alerts.	Community peace actors and CSOs

RS-SRR pillar	Core focus of the pillar	Linkages with climate-related peace & security (Articulated from fieldwork evidence)	Field interview findings	Contribution to climate-related peace & security	Factors explaining level of influence	Fieldwork evidence
		mechanisms help manage climate-related conflicts	council in an inclusive manner, improvement of existing mechanisms in Diffa, etc. build social cohesion.			
9. Gender, women and youth empowerment	Addressing SGBV, inclusion, empowerment	Women and youth are disproportionately affected by climate shocks; empowerment strengthens community resilience and improves climate-sensitive peacebuilding outcomes	PROLAC/ MCRP project (2021-2025) enhanced the resilience to climate change of the people affected by Boko Haram. Thousands of hectares were developed for value chains to benefit vulnerable people and reduce land disputes. PARSEBALT project devoted to social and economic reinsertion of most affected people by insecurity and climate change. These people are mainly women and youth as shown by their percentages among refugees and IDPs.	Women's groups mediated water-access conflicts.	Women-led savings groups and dialogue forums.	Women leaders' interviews

Source: Synthesised from the RS-SRR information, fieldwork notes and analysis.

Since 2018, high-level forums such as the Lake Chad Basin Governors' Forum and the Annual Lake Chad Development Forum (PROLAC/MCRP) have reiterated commitments to scaling up joint stabilisation, recovery, and resilience efforts, including climate security, women and youth inclusion, and private sector involvement.⁴³

RS-SRR implementation: Contributions to preventing and managing climate-related peace and security risks

Insights from interviews show that some policy actors recognise climate risks and attempt to integrate climate-sensitivity into stabilisation, resilience and recovery planning. However, operational integration remains uneven. Across the study locations, the influence of the RS-SRR on local communities were low at community and hyper community-level.⁴⁴ In the case of Adamawa State, policy makers, academics, environmental activists and international organisations said they were not aware of RS-SRR. However, in Yobe, several institutional respondents perceived RS-SRR-aligned programming as contributing to stabilisation gains; improved social infrastructure, peace clubs/peacebuilding activities and some livelihood support. Nevertheless, influence was described as uneven and highly dependent on partner presence and donor funding. Our field analysis indicates that engagement by the governors of the affected areas varies significantly. This variation leads to different ways that staff, government officials, and institutions interact with the RS-SRR. These interactions manifest through campaigns, policy changes, humanitarian responses, and even collaboration with the national military and the MNJTF in the affected regions. For example, while the RS-SRR is strategic framework rather than a project, many still perceive it, and assess it, as if it was a project. As a result, their interactions with RSF and PROLAC related activities shape their awareness of the RS-SRR.

Cross-cutting constraints to implementation include weak sustainability planning, limited government budget for maintenance and follow-through, and insufficient mainstreaming of gender and disability inclusion. The RS-SRR functions effectively as a regional coordination framework and a tool for resource-leveraging but lacks mechanisms for guiding and supporting local governance practices. The findings expose a limitation in how stabilisation is often assessed within and through RS-SRR implementation. Stabilisation indicators tend to prioritise territorial control, reductions in violent incidents, or return movements.⁴⁵ However, analysis from interviews indicate that safe and sustained access to natural resources and economic space is a more meaningful stabilisation benchmark in climate-affected contexts. For example, boreholes are dug across the streets in Yola and Jimeta to serve as water points for trucks meant to water planted trees in the streets but also provide water to communities. In addition, family households are provided with four tree nurseries and a sum of fifty thousand Naira to nurture the plants. In 2025 alone, AcreSAL had planted over one million trees across Adamawa State. In terms of policy to preserve the environment, Adamawa State had put an outright ban on tree felling.

The creation of a Climate Change Sector Working Group in Adamawa State was viewed as a positive, evidence-oriented step. Respondents indicated that awareness had improved, with communities increasingly relying on radio and information from agencies like NEMA. At the same time, strategies such as the Territorial Action Plan (TAP) and related frameworks were criticised for being weak, lacking

⁴³ The first forum that highlighted the issue was the 2021 Governors Forum in Yaounde, followed by the Niamey 2023 Forum on the Development of the Lake Chad region.

⁴⁴ Here we define hyper local as beyond just the eight affected areas to also include a very narrow, specific niche or a small, immediate geographic area, such as subdistrict-level and smaller clusters of a community within villages.

⁴⁵ Tchier and Brodtkorb. 2026.

evidence of impact, limited grassroots inclusion, poor sustainability, and low state-level commitment. Women's participation in climate strategy development remains minimal due to cultural, religious, and patriarchal barriers. Notwithstanding, there are few areas where the implementation of the RS-SRR has contributed to addressing climate-related peace and security risks, but this often focused on the returnees or where climate, peace and security manifestations had occurred and there was a need for actors to intervene.

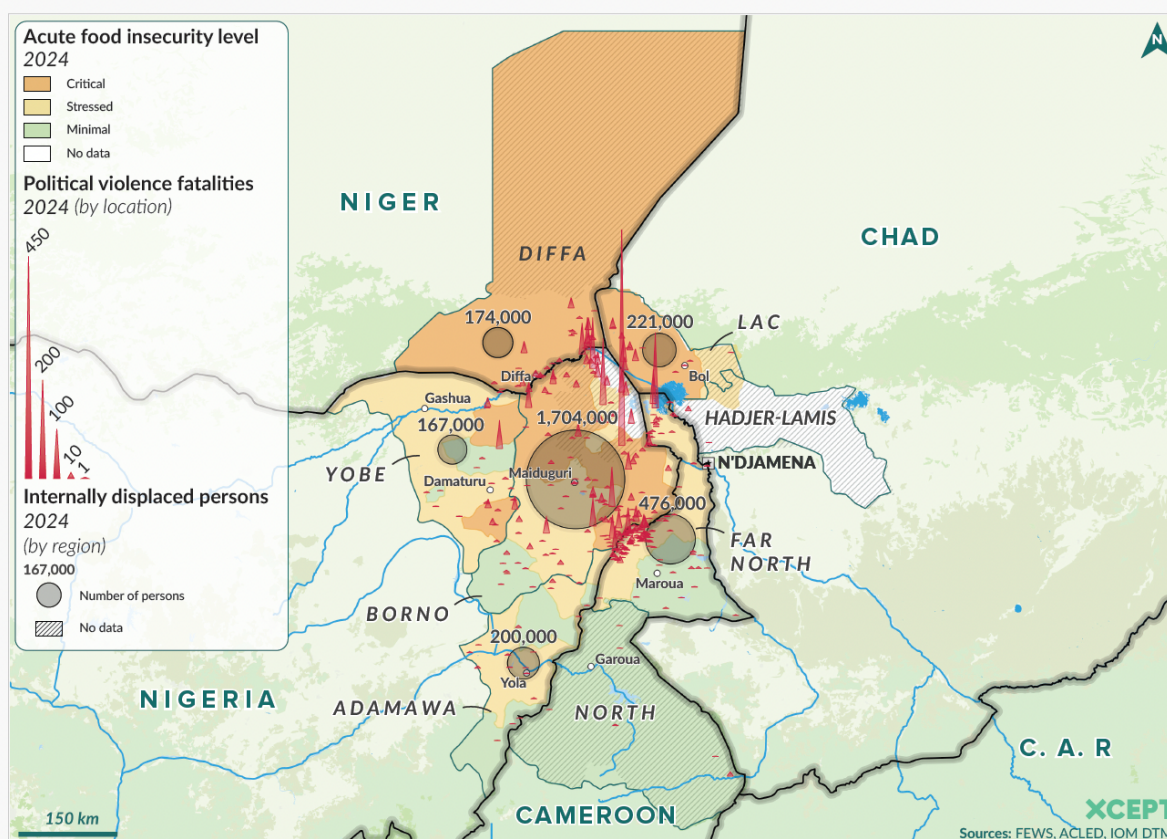


Figure 10: Food insecurity, political violence fatalities and internally displaced persons. Source: The different phases of acute food insecurity are used to reflect the severity of food insecurity in each area. Political violence includes battles, explosions & remote violence, riots, and violence against civilians; Graphic by: Jules Duhamel

Security and stabilisation

Improvement in security and stability is where the RS-SRR has had the most visible influence. In this regard, enhanced coordination among national forces through the Multinational Joint Task Force (MNJTF), state-to-state forces and local security actors have reduced direct violent attacks on previously vulnerable communities.⁴⁶ The stabilisation gains achieved by the Multinational Joint Task Force (MNJTF) are structurally linked to the Regional Strategy for Stabilization, Recovery, and Resilience

⁴⁶ Onuoha, Tchie and Zabala. 2023.

(RS-SRR) governance architecture through a security-development nexus approach, where the LCBC provides overarching political leadership for both military operations and civilian, long-term development efforts.

Across the study locations, interviewees described reduced fear of attacks, safer road corridors, and improved mobility. The actions by the military within a stabilisation framework has enabled partial resettlement resulting in the reopening of markets, creation of garrison towns, and restoration of some basic services such as the renovation of schools and primary healthcare centres. In addition, trade corridors between Maiduguri and cities in neighbouring countries have also been reopened. As a result, most respondents noted that these efforts had led to visible gains from stabilisation efforts. Field data and official reporting indicate the safe return of more than 1 million IDPs can be attributed to RS-SRR-linked stabilisation gains, including rehabilitation of essential infrastructure and demobilisation of former insurgent associates.⁴⁷

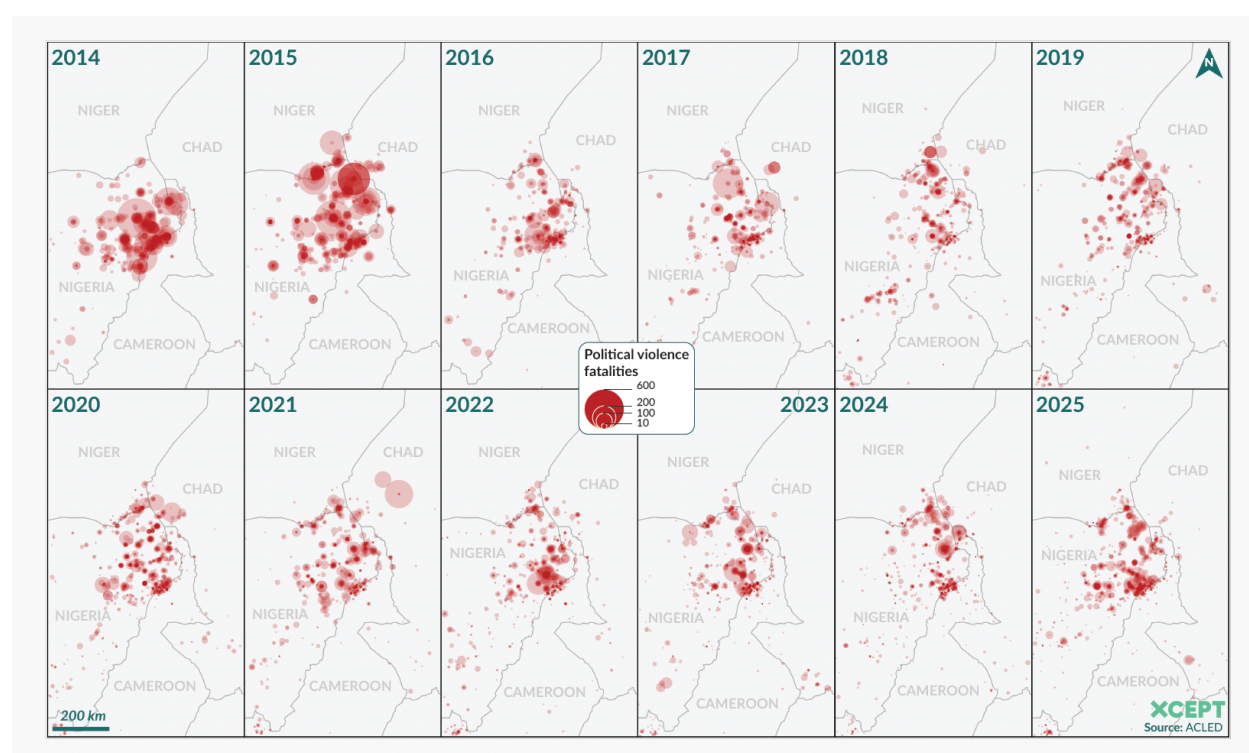


Figure 11: Political violence-related fatalities over time. Source: All fatalities linked to political violence over time, aggregated by month, and limited to the regions covered by our research. This includes battles, explosions & remote violence, riots, and violence against civilians; Graphic by: Jules Duhamel

These achievements are foundational preconditions for resilience-building in fragile environments. While these advances have created space for humanitarian access and socioeconomic activity, their preventive impact on climate-driven insecurity is limited. Security gains have not reliably restored

⁴⁷ Bologi, M. U. 2026. Military operations resettled over one million households in Borno – Theatre commander. The Nation. <https://thenationonline.ng/military-operations-resettled-over-one-million-households-in-borno-theater-commander/>

access to climate-dependent livelihood spaces such as farmlands, fishing grounds, and grazing areas. At best, peace has come as an outcome of reduced violence, but the deeper causes of climate-linked conflict such as resource scarcity, productivity collapse, and livelihood erosion remain largely unaddressed within security planning.

Across all states the RS-SRR-aligned efforts appear to have contributed to aspects linked to stabilisation through improved coordination, some infrastructure and livelihood interventions, and peacebuilding activities. However, the influence is constrained by (i) limited sustainability and maintenance financing; (ii) uneven implementation across the territories; (iii) insufficient integration of gender, youth and disability inclusion into local decision-making; (iv) persistent insecurity and mobility constraints that disrupt both markets and service delivery; and (v) evolving challenges that communities and IDPs face. On the latter point, it was noted that RS-SRR-related implementation is unable to flexibly adapt to the growing changes and needs on the ground due to inadequate monitoring and feedback mechanisms.

Improved humanitarian access and support

Humanitarian access has consequently expanded off the back of improved stability and security in some conflict-affected areas. Evidence from fieldwork indicates that improved security has allowed health services, infrastructure reconstruction, and relief distribution to proceed with fewer disruptions. Early warning structures, disaster committees, and anticipatory mechanisms further signal institutional evolution in risk governance. However, adaptation remains insufficiently embedded within peacebuilding design, often appearing as an add-on rather than a core stabilisation instrument. This limits the strategy's preventive capacity, as climate stress continues to generate livelihood collapse, displacement pressures, and social tension in communities.

The field research found that in several of the communities with whom the Nigeria team engaged with, weak capacity of local government authorities existed across planning, reporting and coordination of climate, peace and security activities including absence of dedicated focal persons for the integration of climate, peace and security into broader RS-SRR pillars. In several cases, respondents indicated that there was weak joint programming across humanitarian, development, climate and peacebuilding actors, often lacking shared indicators that track both adaptive capacity and exposure to conflict. For example, climate, peace and security programming in Yobe does not prioritise locally negotiated resource governance (routes, water points and land use), climate-resilient livelihood packages linked to market access, strengthened early warning and anticipatory action, and service rehabilitation that benefits both host communities and returnee or IDP populations.

Humanitarian assistance and delivery have proven effective in stabilising immediate welfare conditions in displacement-context but less successful in transitioning households toward recovery, resilience and self-sufficiency, thereby prolonging a vicious cycle of aid dependency.⁴⁸ Initiatives to support livelihood recovery have been moderately effective but under-scaled. Access to land, irrigation, and capital remain decisive for peace outcomes.

Women bear a disproportionate responsibility, spending more time sourcing water, food, and fuel under increasingly difficult conditions such as overstressed water points, which disproportionately burden women, in turn affecting household stability. The reconstruction of hospitals, schools, boreholes, and roads fosters coexistence between IDPs and host communities, signalling recovery momentum. However, tensions and disputes have persisted where population outstrips supply of essential

⁴⁸ Often vertical programs and parallel supply/data chains, fragment governance and dampening state capacity.

existential needs such as water, food aid and firewood, mostly in IDP camps and communities hosting IDP camps. Local research noted an increase in the use of clean energy in RSF-related projects, including solar lighting, solar powered drinking water supply systems, solar energy installation in hospitals, and security posts.

Furthermore, across regions, support was not always provided evenly. In some cases, where there was support, some communities were seen as being prioritised over others, such as IDP groups, while in other cases, it was seen as not addressing the main drivers of conflict, namely, access to land, which was seen as a failure of the governance system. Moreover, respondents reported that coordination among humanitarian actors, local authorities, and communities was insufficient. Oftentimes, communities were seen only as recipients of aid, not as collaborators or partners in its delivery.

Livelihoods and economic recovery

Field research underscores the centrality of livelihoods and economic sustainability to climate-security outcomes. The interviews identify livelihood disruption as the primary pathway linking climate change to peace and security risks. Erratic rainfall, desertification, drought and flooding undermine farming, herding, fishing, and petty trading, reducing food availability and household income. Respondents consistently associate these pressures with rising tensions, disputes, theft, and criminal activity. Thus, the identification of livelihood disruption as the primary pathway between climate stress and insecurity is analytically strong and operationally relevant. Climate-related environmental pressure does not automatically translate into violence, but it significantly increases the risk of tension, particularly between IDPs and host communities. In Adamawa State, IDPs acknowledged cordial relationships with host communities. However, deeper investigation reveals that IDPs were exposed to cheap labour exploitation but are also disparaged as *yan gudun hijira* (those on the run). In the Malkohi community in Adamawa State in Nigeria, politics and political alignment strained the relationship between IDPs and their host community. While the IDPs overwhelmingly voted for the candidate of the All-Progressives Congress in the 2023 gubernatorial election, the host community voted overwhelmingly for the incumbent governor who was the candidate of the People's Democratic Party. As a result, the host community members reclaimed the farmlands given or leased to the IDPs.

Livelihood pressures heighten youth vulnerability to crime or recruitment into armed groups. In one community for instance, a respondent noted that most of the youth depend on farming, but low rainfall resulted in unprecedented low yield. In many communities across the affected region, the closure of border routes because of insecurity disrupted trade, compelling the youth to rely on agriculture, but also pushing many of the youth to seek alternative forms of income making them being vulnerable to exploitation. In some identified cases, respondents indicated the challenges of being forced to move to major cities or urban areas to seek alternative sources of income. Declining or disrupted livelihood opportunities leads to idleness and frustration, especially among youths, heightening their vulnerability to indulge in criminal behaviour or recruitment by violent criminal- and extremist groups. Livelihood strategies that were regarded as marginal in the past, such as dry season farming or micro trading were now regarded as important for resilience and reducing scarcity-related tensions. In Adamawa State in Nigeria, poor crop yield at harvest times and falling prices of agricultural produce is discouraging the youth from venturing into farming and many have resorted to commercial motorcycling and tricycle driving as an adaptation to climatic changes. There is an increase in drug use among urban youth, which also brings exposure to related criminal activities. The governors in northern Nigeria have banned the felling of trees for producing charcoal, but as there is no alternative source of energy for cooking, it is a difficult policy to implement. It does mean, however, that those that engage in charcoal production and

trade as a livelihood strategy are now engaged in an illegal activity which increase their vulnerability to criminal and armed groups.

Households lacking secure access to land, water, markets and income face persistent risk of livelihood collapse, which in turn increases the likelihood of conflict over land, water and food and youth recruitment into armed groups. Respondents reported some RS-SRR-related livelihood initiatives that included cash-for-work programmes, vocational and skills training, seed distribution, small grants, dry-season farming, and micro-enterprise support are widely perceived as stabilising. For example, in 2023, PROLAC Chad supported the Société de Développement du Lac (SODELAC) as part of efforts to enhance agricultural recovery and resilience in the Lake Chad region. This collaboration has yielded significant results in the rehabilitation of polders and small-scale irrigated schemes covering approximately 2,400 hectares, areas that fall under SODELAC's management mandate. The production of pepper, onion, tomato and other vegetables and increased access to markets in Cameroon, Chad and Nigeria were supported. Through PROLAC's support, SODELAC received targeted financial assistance and essential technical equipment, including motorcycles. These resources have substantially improved the mobility and operational capacity of SODELAC's extension agents, enabling them to provide regular advisory services, technical guidance, and field support to farmers across rehabilitated sites. In addition, the partnership facilitated the rehabilitation of key infrastructure previously under SODELAC's responsibility but transferred to local institutions. These include the Kouri cattle conservation center and the Technical Support Center of Bol, both of which play a strategic role in livestock preservation, technical assistance, and agricultural development within the Lake Chad area. Overall, the reactivation of this partnership has strengthened institutional capacity, revitalised productive infrastructure, and improved agricultural productivity and community resilience in the region. PROLAC Niger also sponsored various activities related to polder rehabilitation, including environmental research at the University of Diffa.

Moreover, during the closing workshop of the PROLAC programme, held in December 2025 in Ndjameña, it was revealed that over 3700 hectares of dunes were stabilised in Niger, while thousands of hectares of land were stabilised and prepared for numerous households. The project provided solar energy, irrigation facilities, and seed development to support agriculture. Similar support was also given to livestock and fishing development. Around 150 000 young people received income through the high labour intensity programmes in the four countries.

The value of these initiatives lies not only in income generation, but also in restoring dignity, resilience, and supporting social cohesion. However, these activities have often been short-term, limited in scale, and insufficiently climate sensitive. In addition, they are highly vulnerable to renewed insecurity. As a result, they have failed to generate sustainable solutions to climate-vulnerable livelihoods. Communities that are more stable and resilient are characterised by households that have diversified income-generating activities and social support networks. Livelihood restoration and diversification remain critical gaps in translating stabilisation gains into durable peace.

Adaptation and coping mechanisms

Field interviews highlight collapse of economic (agricultural) productivity and related livelihood stress as the main pathways linking climate change to insecurity. Hence, where livelihood support exists or adaptation initiatives are effectively implemented, communities are better able to absorb climate stress or shocks, thereby reducing the potential for conflict and instability. In Borno in Nigeria, RS-SRR-related adaptation support initiatives were described as sporadic and under-resourced. Communities relied heavily on informal coping mechanisms, collective labour, food sharing, and self-organised responses to flooding rather than structured institutional support. These practices demonstrate community resilience

but also highlight the absence of institutional services and support, suggesting that coping mechanisms currently substitute for systematic adaptation. In Hadjer Lamis and Lac in Chad, community-initiated adaptation strategies have led communities to adopt approaches and activities like market gardening, especially managed by women's groups involving wives and children of pastoral communities, to promote dialogue and reduce conflicts between farmers and herders. These groups produced off-seasonal crops and moringa, alternative crops such as rice and sugar cane instead of maize and sorghum, and they established cereal banks at harvest time. Much of this activity has been designed to manage lean periods but are now also used by residents living in cities. In Far North Cameroon, and Maiduguri in Nigeria newly adopted value chains like watermelon, onions and potatoes serve as high-income activities requiring comparatively little agricultural land, helping to decrease youth demand for extensive arable land.

While it was clear that communities were adapting, there was a need for local authorities to better engage with and consult communities in the design phase of RS-SRR related programmes. They should also provide more support to community-brokered agreements on grazing routes, farmland boundaries, and water point usage. Although the RS-SRR speaks to the need to support communities through resilience and adaptation, some of the local efforts that support formal justice institutions and increase the role of security actors, risk alienating opportunities to support the expansion and professionalisation of community mediation structures (including women and youth representation). Though it was clear that some programmes made an effort to ensure that women, youth and people with disabilities were included and looked after, communities were not consulted in the programme design but were only included as participants when the programmes were being implemented. Consequently, opportunities to institutionalise regular multi-stakeholder forums in hotspot areas to pre-empt seasonal disputes were missed, especially given that many of these hotspots are prone to the impacts of climate change.

Adaptation initiatives implemented as part of the RS-SRR such as agro-forestry, solar-powered irrigation, water infrastructure, and climate-smart agriculture, demonstrate the strategy's potential to mitigate climate-related peace and security risks that could trigger or exacerbate conflict and insecurity. Respondents highlighted ecosystem-based adaptation, including tree planting, agro-waste conversion into briquettes, and community environmental ownership campaigns. Government-led initiatives such as tree planting campaigns, dry-season farming, solar-powered irrigation, the manufacturing of improved cookstoves, the production of compost, the promotion of fodder farming, drought-resistant seeds, and climate-smart agriculture are framed not only as resilience measures but as mechanisms for reducing exposure to armed groups and lowering incentives for conflict. Yet, these efforts remain constrained by inadequate funding, manpower limitations, and weak technical coordination. Limited livelihood support means that pressure on natural resources continues unabated, increasing the risk of tension and disputes and imposing additional burden on fragile mediation mechanisms. As a result, resource competition continues to intensify in areas experiencing fodder scarcity, diminished grazing routes, and shrinking arable land. In displacement contexts, tensions and disputes have frequently manifested over waterpoints, aid distribution and firewood.

While the field research also showed that communities are trying to adapt through resilient approaches, it also found from several interviewees that the advancement of technologies such as smart phones and mobile money have allowed for new job opportunities while activities such as commercial tricycle riding had provided jobs and livelihood to a lot of people. Economic choices such as these have allowed some youth and women to adapt, adjust and build new economic avenues to provide for themselves. However, in several of these communities, respondents indicated that they felt the growing impact of climate change, which also meant that they would be forced to move their businesses to capital cities which in the long-term may exert more pressure on communities and migrant communities in urban areas.

Field research underscores that despite frequent tension and disputes, violent conflict is largely prevented through local mediation and indigenous alternative dispute resolution practices. Traditional leaders and elders intervene early in disputes, negotiate access to land, and manage tensions between farmers, herders and IDPs. The structured local chieftaincies which work within traditional governance mechanisms are described as effective because they are trusted and culturally legitimate. Livelihood diversification such as sharing farmland, small-scale handcrafts, firewood collection, and petty trade, has helped households cope with climate stress and reduced the likelihood of conflict over scarce resources. In addition, communities have embraced coping mechanisms such as communal contributions to support the elderly and vulnerable, particularly with food assistance. Informal coping mechanisms such as food sharing, collective labour, and self-help initiatives emerge before institutional assistance from either humanitarian organisations, development agencies or government may become available. Women's coping strategies such as food sharing, informal childcare arrangements, and mutual support, help prevent social breakdown despite environmental stress. While these practices demonstrate resilience, they also reveal institutional absence and lead to coping mechanisms being substituted for adaptation where structured support is lacking.

Social cohesion and community resilience

Another notable influence of the RS-SRR is in the aspect of supporting platforms for community reconciliation, traditional authority engagement, and civil society participation. The Governors' Forum, the Annual Lake Chad Development Forum multi-stakeholder dialogues, and community reconciliation initiatives foster dialogues that mitigate or manage local disputes and competition over scarce resources such as water, access to land, and aid distribution. In Adamawa State in Nigeria, the government established a peace agency to help resolve conflicts and promote peace in the state. However, field evidence suggests that formal RS-SRR-related mechanisms often fail to sufficiently resource or integrate local peace infrastructures, particularly religious and traditional leaders, whose mediation capacity is essential in addressing climate-driven tensions at the community and grassroots levels. Nevertheless, it is important to understand that RS SRR-related institutional arrangements are not meant to resolve conflicts, but rather to facilitate effective functioning of conflict resolution mechanisms through cross-border networks and communication.

Traditional, religious, and community leaders consistently emerge in the interviews as the primary stabilising actors. They mediate farmer–herder disputes, manage IDP–host community relations and resolve conflicts over aid distribution, natural resources and water and firewood. They intervene early in disputes, drawing on customary norms to mediate and resolve disagreements. The interventions are described as effective because they are trusted, timely, and grounded in local legitimacy. In this way, their efforts significantly contribute to conflict prevention and climate resilience outcomes. In Adamawa state, for instance, the Nigeria Security and Civil Defence Corps (NSCDC) have worked through traditional authorities to mitigate several cases of farmer-herder conflict in the state using the alternative dispute resolution mechanisms. In some communities the Kabona system, a traditional mechanism that predates formal courts are being used and could be harnessed to deliver and support the effectiveness of the RS-SRR through local dialogues like pre-planting and harvest dialogues.

In Far North Cameroon, traditional authorities allocate areas where the pastoralists can move to during the rainy season, usually in places where livestock and farms do not converge. The owners pay a tax per herd or per animal. Traditional authorities often assert their involvement in the planning, implementation, and assessment of projects in their communities. This helps them take ownership, foster community participation, and address local concerns. Accordingly, a forum for traditional

authorities was held just before the 2025 Governors’ Forum in Maiduguri. Conflict resolution mechanisms were among the topics discussed. Yet traditional and religious leaders receive little formal recognition or support despite carrying significant peacebuilding responsibility. Peace is largely sustained by traditional authorities through informal institutions and much of the social cohesion that mitigates climate-related conflict is sustained by traditional and community institutions, despite limited government support or systematic RS-SRR-related programming. This underscores the need to scale-up the integration of traditional and community leaders into stabilisation and climate-resilience programming, and to link mediation efforts with livelihood and environmental support to reduce the underlying drivers of tension. One example of a RS-SRR-related initiative in this area is the “Promoting CSO-led peacebuilding initiatives in the Lake Chad sub-region” project supported by the UN Peacebuilding Fund since 2023.

Knowledge production and learning

While early warning dissemination and risk awareness are improving, systematic learning loops between climate science and stabilisation planning remain underdeveloped. Health stress, extreme heat, idleness and psychosocial strain are rarely conceptualised as security variables, despite their observable effects on social restraint and cohesion. In this light, skills acquisition and empowerment programmes helped to reduced idleness and vulnerability of young people to criminality, but their exclusion from project design and limited employment absorption constrains long-term impact. Within the PROLAC/MCRP project, a Knowledge Management Platform was created within the framework of the LCBC managed Lake Chad Information System (LIS).⁴⁹ It hosts thousands of references and documents on topics such as environment, climate change, natural resources, governance and inclusion, youth, and women empowerment, which can be downloaded by universities in the Lake Chad region, and serves as a ‘one-stop-shop’ for knowledge products on the Lake Chad Basin. The project has also funded research initiatives and conferences related to these themes. For example, there are research laboratories under construction at the Maroua University branch in Kousseri, Cameroon.

Dialogue platforms, peace clubs, and mediation training have contributed to conflict de-escalation, particularly in farmer–herder disputes in some communities. But tensions are most acute where farming and grazing overlap, particularly during dry seasons when water and pasture are scarce. In the Gulani community, in the Adamawa State in Nigeria, over 30 deaths were attributed to farmer-herder clashes within three months. In one community, a best-practice initiative that emerged involved a subgroup of farmers collectively designating routes through their farmlands to allow herders to pass through and access water points for their livestock. The arrangement significantly reduced friction and the risk of farmer–herder clashes. Nevertheless, in areas with limited or no livelihood support, the pressure on natural resources continues unabated, increasing the burden on mediation mechanisms. In such situations, informal institutions such as traditional and religious authorities often outperform formal mechanisms, highlighting a need for deeper community anchoring. Overall, these findings suggest that RS-SRR operates effectively as a security-enabling framework but only partially as a climate-security instrument.

⁴⁹ Lake Chad Basin Commission Knowledge Management Platform (2026). Available at: <https://lis.cbtl.org/lis/welcome>

Core findings

Our core finding is that the implementation of the strategy has contributed to reducing violent conflict and fostered pathways toward recovery, however climate stressors continue to undermine the sustainability of gains recorded thus far. We have identified three implementation gaps.

The first is a security-adaptation imbalance; stabilisation efforts have outpaced climate-security risk reduction. There has been gradual reduction of armed group related violence and partial resettlement, but the underlying drivers of climate change-related conflicts, including resource scarcity and livelihood erosion, remain largely unaddressed, and contributes to inter-community conflicts, such as farmer-herder clashes.

The second is a design-localisation disconnect. While the RS-SRR is influential at the macro policy-level, its influence at the community and local levels is uneven, limited and unsustainable. Most climate change-related conflicts are prevented and managed by community and traditional mechanisms without institutional support from local or national authorities or other RS-SRR-related implementation initiatives.

Finally, there is an ambition-capacity mismatch. The RS-SRR recognises climate risks at policy level, but implementation is weak and fragmented due to donor dependence and limited capacity for delivery at subnational levels (state and local governments). In addition, capacity constraints at subnational levels raise concerns about the durability of stabilisation gains. Without stronger institutional ownership and technical capacities, progress risks remaining contingent on external financing. The RS-SRR has had demonstratable influence on some local-level outcomes across a number of pillars and priorities.

Data in Table 3 show RS-SRR implementation influence on climate-related peace and security risks, underscoring some of the notable factors explaining its level of influence.

Table 3: RS-SRR Pillars and core interviews findings.

RS-SRR Pillar	Core Interview Finding	Integrated Analytical Interpretation	Implication for RS-SRR Revision
Security and Stabilisation	Insecurity prevents farming, fishing, and trading even when climate conditions improve	Security mediates climate vulnerability; territorial control alone is insufficient	Include safe access to land pastures and water as stabilisation indicators
Livelihoods and Economic Recovery	Livelihood loss is the main climate–security pathway	Livelihood resilience buffer climate stress but are under-scaled and short-term	Elevate livelihood resilience as a priority intervention to prevent insecurity and instability
Social Cohesion and Community Stabilisation	Farmer–herder, IDP–host and other social tensions centre on access to land and water for grazing and crop production	Climate change impacts on livelihoods, generating scarcity related tensions and conflicts; mediation prevents escalation	Integrate climate adaptation and support community and traditional conflict management
Resilience and Climate Adaptation	Climate adaptation actions are weak and sporadic	Climate recognised but not operationalised; coping replaces adaptation	Integrate climate adaptation as a core conflict prevention element and enabler of stabilisation, resilience and recovery
Cross-cutting: Localisation	RS-SRR experienced as fragmented projects	Strategy influential at regional level but uneven at local level	Strengthen localisation, communication, and ownership mechanisms

Source: Compiled from Fieldwork Notes.

Consequently, three overarching conclusions emerge from the fieldwork,

- First, the RS-SRR has contributed to reducing armed group violence but has not sufficiently addressed the environmental stressors that generate recurrent inter-community tensions and conflict;
- Second, climate adaptation remains insufficiently institutionalised across the RS-SRR and in related programming, undermining the sustainability of stabilisation gains. Climate adaptation, health resilience, security operations, and livelihood recovery operate in parallel rather than as mutually reinforcing components of a unified climate, peace and security strategy;
- Finally, durable climate, peace and security outcomes depend on embedding livelihood systems, water and other natural resource governance, and inclusive local conflict management institutions within the regional stabilisation strategy. Livelihood support programmes associated with the RS-SRR such as agricultural training, irrigation support, youth entrepreneurship, conflict prevention and cash-for-work are widely regarded as beneficial, but insufficient compared to the scale of climate vulnerability. Desertification, rainfall variability, and increasingly flooding continue to disrupt farming cycles faster than adaptation initiatives can mitigate. In effect, RS-SRR implementation demonstrates appreciable progress but lacks the systemic depth required to transform climate insecurity pathways.

5. Recommendations

The integrated analysis from the field research demonstrates that climate-related peace and security risks in the Lake Chad region arise not from climate change alone, but from how environmental stress interacts with insecurity, livelihoods, and governance. While the RS-SRR provides a sound strategic framework, its influence has been stabilising rather than transformative, due to its limited reach, weak localisation and lack of focus on climate resilience.

While stabilisation and recovery gains have improved security and humanitarian access, climate-related livelihood pressures, weak localisation, and limited institutional capacity continue to undermine sustainability and durable peace outcomes. Interventions remain fragmented, short-term, limited in funding and insufficiently embedded in local governance systems. Accordingly, the proposed recommendations suggest leveraging the RS-SRR to further restore productive capacity, strengthen local ownership, integrate climate adaptation with peacebuilding, and enhance community engagement and participation.

Collectively, these measures aim to translate stabilisation gains into sustainable resilience and long-term security. However, strengthening the RS-SRR requires aligning its security, livelihood, social cohesion, and resilience pillars more closely with the lived realities captured in the interviews—transforming climate-sensitive and peace positive resilience from fragmented interventions into integrated, locally grounded governance practice. Therefore, drawing on insights from the fieldwork, the following actionable recommendations are proposed to inform the next phase of RS-SRR-related programming and governance.

1. *Prioritise livelihood resilience and recovery of adaptive productive capacity*

RS-SRR-related implementation planning should explicitly prioritise the resilience of livelihoods through the restoration of adaptive productive capacity such as farming, fishing, herding, and trading, particularly in displacement-affected communities. Governments and partners should embed land access facilitation, soil and water rehabilitation, and climate-resilient livelihood inputs within RS-SRR programming to prevent prolonged dependency and reduce competition over scarce resources.

Livelihood assistance should transition from short-term, grant-based interventions toward multi-year resilience investments that include that aim to support irrigation infrastructure, smart agriculture, value-chain support, market access, and ongoing extension services. Short project cycles create temporary relief but do not reduce structural climate vulnerability. Longer-term support is necessary to translate stabilisation, resilience and recovery gains into durable peace dividends.

A condition for such outcomes is the continued presence of security forces in areas where IDPs and refugees are returning. This will allow them to restart and innovate in agricultural, pastoral, and fish farming activities without fear of disruption by armed groups. Such an approach can foster a cycle where security and development reinforce each other in these regions. Security forces should act as an anchor for other governance services, initially via civil-military operations, but as soon as possible via providing a safe base for policing, justice, civil-administration, health, education and other governance services.

The effectiveness of the RS-SRR should not be assessed only based on reductions in violence, but should also include indicators that assess resilience, social cohesion and adaptive productive capacity, including safe and sustained access to farmland, grazing routes, fishing grounds, and

markets. Without secure access to productive assets, households remain vulnerable to climate stress and displacement even where violence has declined. A focus on armed group related violence risk missing the insecurity caused by climate-related community tensions and conflicts. Integrating access-based resilience and recovery indicators into RS-SRR monitoring would better capture whether security gains are translating into durable resilience.

2. Institutionalise greater collaboration with community leaders

Governments across the Lake Chad region, should establish stronger, institutionalised mechanisms for coordination and collaboration with community, traditional and religious leaders. RS-SRR-related implementation should formally integrate traditional and community leaders, and universities and research institutions, in monitoring and data collection. Stabilisation, recovery and resilience-building efforts needs to be climate-sensitive, in ways that link community and traditional mediation efforts with livelihood and environmental support. Such engagement would strengthen their capacity to effectively resolve disputes, aggregate and transmit community priorities to the government, and help to design government interventions, including those contained in the RS-SRR. Traditional leaders and civil society organisations are already recognised as key stakeholders in the RS-SRR, but this recognition needs to be operationalised in ways that significantly transform local communities from beneficiaries to partners that co-design and co-implement those initiatives that are intended to support them. Strengthening these institutions and their participation in co-shaping RS-SRR-related implementation will enhance conflict prevention, social cohesion, local ownership, and lessons learned that could encourage replication in other contexts.

3. Prioritise youth-focused livelihood and resilience programmes

It is recommended that relevant government agencies, in partnership with donors, local vocational institutes and the private sector, implement targeted youth empowerment programmes focused on vocational and locally relevant skills, including ICT, plumbing, welding, carpentry, borehole maintenance, auto-mechanics, and phone repairs. Training should be delivered through accredited local training centres, issuance of recognised certificates to successful candidates, and complemented by start-up kits or phased seed funding to facilitate transition to self-employment. Youth-focused livelihood and resilience programmes should be prioritised as preventive security measures, reducing vulnerability to recruitment into violence or criminal coping strategies. Such programmes need to be designed in collaboration with youth representatives and organisations and should be designed to enhance livelihood resilience in the context of climate change and as a means to prevent and manage related climate, peace and security risks.

4. Integrate women and gender-responsive resilience programming

Stabilisation recovery and resilience building efforts should mainstream gender-sensitive climate resilience across livelihood and recovery pillars, recognising that climate-related security risks often persist where women's adaptive capacities are overlooked. Programmes should ensure women's meaningful participation in local decision-making structures, expand access to gender-responsive livelihood support and skills training, and reduce barriers to resources such as land, credit, and information. The study has found that women-led cooperatives make a critical difference in the resilience of many communities by providing economic relief, interest free loans and capacity building. Support for such cooperative arrangements should be significantly scaled-up, amongst others, through mobile money and online market platforms for women-led business. Integrating women's perspectives into early-warning, dispute-resolution, and livelihood diversification initiatives would strengthen household and community-level resilience while addressing underlying gendered vulnerabilities.

5. *Strengthen natural resource governance and environmental peacebuilding within stabilisation frameworks*

Conflict-sensitive natural resource management (environmental peacebuilding) – especially programming that pertains to water access and control – should be formally integrated into stabilisation and security planning. The neglect of environmental stressors such as limited water points, scarce grazing routes, and poor sanitation infrastructure risks entrenching low-level insecurity and recurring disputes, especially in communities where surge in population has stretched available natural resources. Working with traditional dispute resolution mechanisms and community and livelihood groups leaders, government and implementing partners should scale up support for natural resource management and related dispute resolution mechanisms in affected communities. Natural resource competition should be transformed as a source of tension and conflict to an opportunity for inter-community cooperation and trust-building, which will strengthen social cohesion and societal resilience.

6. *Strengthen localisation, community engagement and coordination of the RS-SRR*

Implementation should prioritise localisation and community ownership. State and local governments, together with implementing partners, should translate the strategy into locally codesigned action plans and communication tools that clearly link projects to the RS-SRR framework. Community sensitisation forums, ward-level planning dialogues, and feedback mechanisms should be institutionalised so that beneficiaries understand local initiatives as part of a coherent stabilisation, resilience and recovery strategy rather than disconnected and short-term local activities. Strengthened participation and ownership will improve accountability, sustainability, and trust in public institutions. Women, youth, community members, and traditional leaders can play catalytic roles in ensuring that territorial action plans and other RS-SRR initiatives are locally owned. Their involvement would contribute to address contextual and sector-specific challenges, including climate adaptation needs, while fostering local co-ownership and engagement. It would also enable the integration of local knowledges and networks, and the use of community-based monitoring and feedback mechanisms that support ongoing adaptation and learning.

7. *Integrate Climate, Peace and Security tools to support the implementation of the RS-SRR*

Insights and instruments from Climate, Peace and Security- and Environmental Peacebuilding perspectives should be integrated into the design, coordination and resource mobilisation of the RS-SRR, including in territorial action plans and monitoring and evaluation system. One model example for integration with regard to early warning systems at the LCBC could be the Intergovernmental Authority on Development (IGAD) Climate Prediction & Applications Centre (ICPAC) and its forecasting and preventive stabilisation initiatives. In this model, regional and local authorities, as well as communities, are engaged in outlook planning based on seasonal weather forecasts and related outlook assessments.

Strengthening the climate change and environmental peacebuilding dimensions of the RS-SRR can also support the generation of new partnership and resource mobilisation opportunities. Such an agenda can be a catalyst for attracting climate change-related funding, including from the Green Climate Fund following similar funding initiatives in Somalia and elsewhere. Such diversification of funding and programming would benefit from the adoption of more conflict-sensitive and peace-positive National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs).

8. *Invest in broadening the reach, scale and scope of the RS-SRR*

Whilst the RS-SRR recognise that efforts to achieve stabilisation, recovery and resilience require a comprehensive approach to create a shared operating space for the widest possible set of

stakeholders, dimensions, scales and temporal approaches, the study found that the strategy suffered from an ambition-capacity mismatch. The RS-SRR has not been able to mobilise support for its objectives at a scale that can meaningfully achieve social change. There is currently insufficient integration of effort across the pillars, and insufficient coordination across the territories and countries to transform the potential of the strategy into impact. Political energy and strategic vision are needed to bring key stakeholders together into a joint effort that strengthens coordination, in order to achieve real alignment of efforts towards a shared set of strategic objectives.

Our research has shown that climate change related environmental degradation is an important driver of instability in the Lake Chad region, and it is a major part of the lived experience of the persons interviewed for this study. Placing climate change at the centre of the strategy's analysis, and prioritising livelihood resilience and adaptive productive capacity within its theory of change for conflict prevention, stabilisation, resilience, and recovery, could help re-energise the RS-SRR. This approach could also enhance its relevance for both the region's populations and the key stakeholders involved in its implementation.

6. Conclusion

In this study, our aim has been to generate evidence-based knowledge on the most effective strategies for preventing and managing climate-related conflict and instability. To do so we focused on the Lake Chad region and its regional strategy for stabilisation, resilience and recovery (RS-SRR). We selected this case because the Lake Chad region is highly exposed to climate change and environmental stress, with the strategy representing a serious concerted multi-dimensional and multi-scale effort to improve the security and stability of the region.

We found that whilst the strategy is comprehensive across several social domains, its engagement with climate change and ecosystem dynamics is insufficient. As the various outputs of this research project—including this study—demonstrate, the everyday lived experiences of people in the region show that the impacts of climate change and environmental degradation on livelihoods, as well as on food and water security, are significant drivers of instability. It is not possible to achieve stability in the region without strengthening the resilience and capacity of communities to adapt to ongoing environmental change. However, climate adaptation remains insufficiently integrated within stabilisation, resilience and recovery programming and practice.

There is thus untapped potential for climate change and environmental issues to serve as entry points for building peace, resilience and stability. This points to an opportunity for leveraging the management of natural resources and benefits of environmental peacebuilding.

We found that the strategy has contributed to stabilisation gains that have improved security and humanitarian access, however, climate-related livelihood pressures, weak localisation, and limited institutional capacity continue to undermine durable peace outcomes. We highlighted three key findings. The first is a security-adaptation imbalance. Even if there has been some security and stability gains, the underlying drivers of climate-related conflict (e.g., resource scarcity, livelihood erosion) remain largely unaddressed. The second is a design-localisation disconnect. While the strategy is prominent at the strategic-policy level, its influence at community level is uneven, limited and unsustainable. The third is an ambition-capacity mismatch. Whilst the comprehensiveness of the strategy is commendable, we found that the strategy's implementation is fragmented, short-term, constrained by limited resources and insufficiently embedded in local governance systems.

We have offered eight recommendations for strengthening the influence of the regional strategy on preventing and managing climate-related insecurity. Positioning climate change at the core of the strategy's analysis, and placing livelihood resilience and adaptive productive capacity at the centre of its conflict prevention and stabilisation theory of change, could help reinvigorate the strategy and enhance its relevance for the region's populations and key stakeholders. Strengthening the climate change and environmental peacebuilding dimensions of the RS-SRR can generate new partnership opportunities and serve as a catalyst for attracting climate change-related funding.



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