

A stylized map of the Lake Chad region, outlined in white and yellow lines against an orange background. The map shows the coastline and internal topographic features with concentric contour lines. The title text is positioned in the upper right quadrant of the map.

# SHORING UP STABILITY

ADDRESSING CLIMATE AND  
FRAGILITY RISKS  
IN THE LAKE CHAD REGION

## EXECUTIVE SUMMARY



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**In the Lake Chad region climate change and conflict dynamics create a feedback loop where climate change impacts seed additional pressures while conflict undermines communities' abilities to cope. The impacts of climate change have to be tackled as part of peacebuilding efforts if the region is to break free of the conflict trap. In doing this, Lake Chad can once again become an engine for sustainable livelihoods and stability in the region.**

The people of Lake Chad are caught in a conflict trap. Violent conflict between state security forces and armed opposition groups, poor governance, endemic corruption, serious environmental mismanagement and poverty have ruined the lives of local people. Some 2.5 million people have fled their homes, leaving vast areas insecure and tens of millions of people lack adequate services. Currently, an estimated 10.7 million people need humanitarian assistance: 5 million of them are acutely food insecure. Climate change is compounding these challenges.





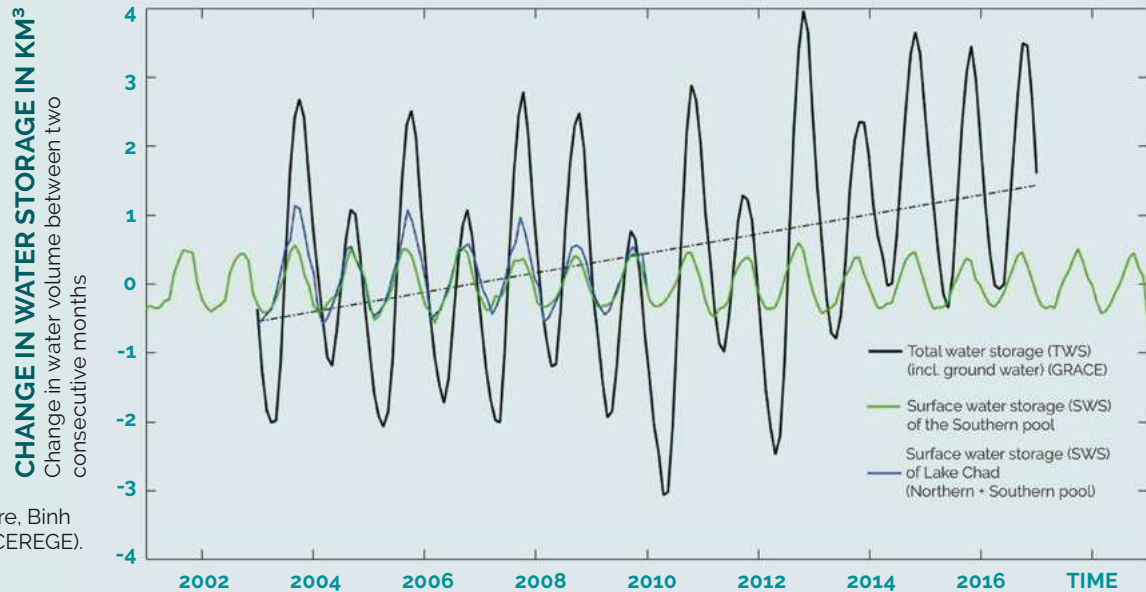
This crisis is not simply collateral damage from harsh conditions in the Sahel. In fact, as a unique fresh water lake in the middle of the arid Sahara, Lake Chad is an ecological miracle. For millennia, it has been a source of life, resilience and even prosperity for the surrounding area. But since 2009, the parts of Nigeria, Niger, Chad and Cameroon bordering Lake Chad—which are home to more than 17.4 million people—have been locked into multiple and overlapping crises. Whether it will be possible for people to break out of this conflict trap will depend on a nuanced understanding of how climate change and conflict interact in this specific context. Through the joint analysis of climate change and conflict risks, the present assessment takes an evidence-based approach to understand the different and connected dimensions of risk and inform appropriate responses.

This report is the first of its kind on the Lake Chad region and a pioneer among climate-fragility risk assessments globally. It is the product of an intensive two-year period of research across all four countries. The assessment draws on long-term hydrological data from the Lake Chad basin, including ground measurements as well as brand new analysis of 20 years of satellite observations. It also builds on more than 200 interviews with community members, including past and present members of armed opposition groups, experts and officials, and an extensive review of the literature on Lake Chad. It aims to present a balanced, fact-driven conflict and climate risk assessment of the Lake Chad region that identifies key risks and proposes pragmatic solutions.

## KEY FINDINGS

Whilst the lake contracted significantly due to drought in the 1970s and 1980s, our research finds that the lake is currently not shrinking. That is not to say that Lake Chad is not affected by climate change. On the contrary, climate change is having profound adverse impacts on the conflict, intensifying existing dynamics and creating new risks. But an alleged shrinking of the lake is not the problem. However, high levels of rainfall and wide temperature variability are undermining people's lives and livelihoods. Temperatures in the region are rising one and a half times faster than the global average. And climate projections predict that weather conditions will only become more extreme and more unpredictable. In the case of Lake Chad, this is mainly playing out in the changing size of the northern pool of the lake and the increasing variability in the timing and amount of rainfall. The resulting uncertainty means that those who depend on the lake no longer know what to plant and when, and when to switch from one livelihood to another.

## TOTAL WATER STORAGE OF LAKE CHAD



Source:  
Florence Sylvestre, Binh  
Pham Duc (IRD-CEREGE).  
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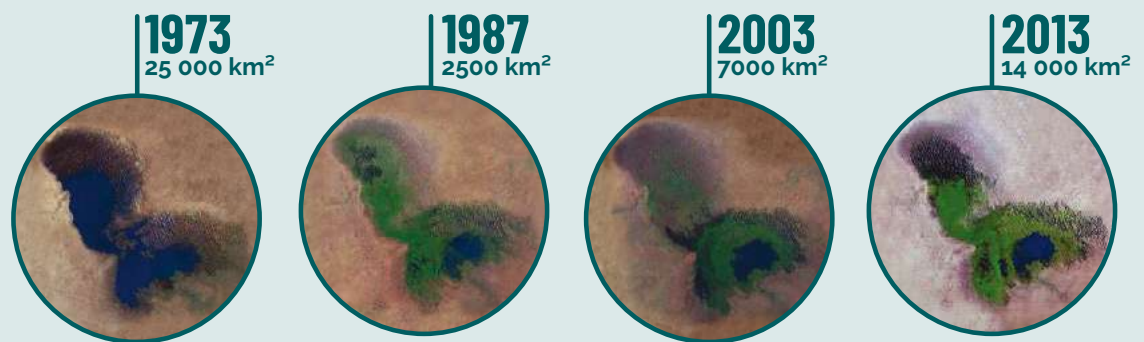
This graph shows that the surface water storage is stable. The lake's size, measured as total water storage (black line), takes account of all the water of the lake, including surface water, subsurface water and ground water, which accounts for over 80% of the lake's water, is clearly increasing. This denotes that the lake's groundwater is increasing. Surface water storage accounts for only 20% of the lake's water. Whilst this surface water is what is visible and is significant for livelihoods such as fishing, groundwater is extracted via boreholes for farming, livestock and domestic use and highly pertinent to the communities around the lake.

Communities in this region are thus vulnerable to both the impacts of climate change and the ongoing conflict—a pincer movement of forces which creates its own feedback loop. Years of conflict, poverty and persistent human rights violations from both governments and armed opposition groups have fragmented social bonds among families, among generations, among ethnic groups and between displaced people and host communities, making it harder for people to cope with and adapt to climate impacts than in the past. Meanwhile, climate change is aggravating the political and economic conditions that gave rise to the violence in the first place, undermining efforts to break the conflict trap.

The latest bout of violence in the region began in Northeast Nigeria in 2009 with the rise of the current insurgency, which later spread into neighbouring Cameroon, Chad and Niger. But the root causes of the violence stretch back longer. They can be found in recurring economic crises, divisive reforms and weak governance in the region, coupled with rising inequality and dismay at corruption among the ruling elite. These helped to set the scene for intensifying religious fundamentalism and the rise of armed opposition groups.

Other significant factors were the severe droughts of the 1970s and 1980s. These droughts led to the lake shrinking from a high point of 25,000 km<sup>2</sup> in the 1960s, when it was the world's sixth largest freshwater body and a thriving commercial hub for the entire Sahel, to just 2,000 km<sup>2</sup> in the 1990s. By displacing communities and undermining state legitimacy, the droughts helped set in motion a train of events which is still being felt today. Whereas the lake's shrinking has indeed fed into the current crisis, the lake has since expanded to roughly 14,000 km<sup>2</sup>. Its size has proven relatively stable over the past two decades. Indeed, the total water storage has actually increased, if one includes groundwater as well as surface water, which runs counter to the prevailing narrative of a lake in terminal decline.

## LAKE CHAD'S WATER LEVEL FLUCTUATIONS

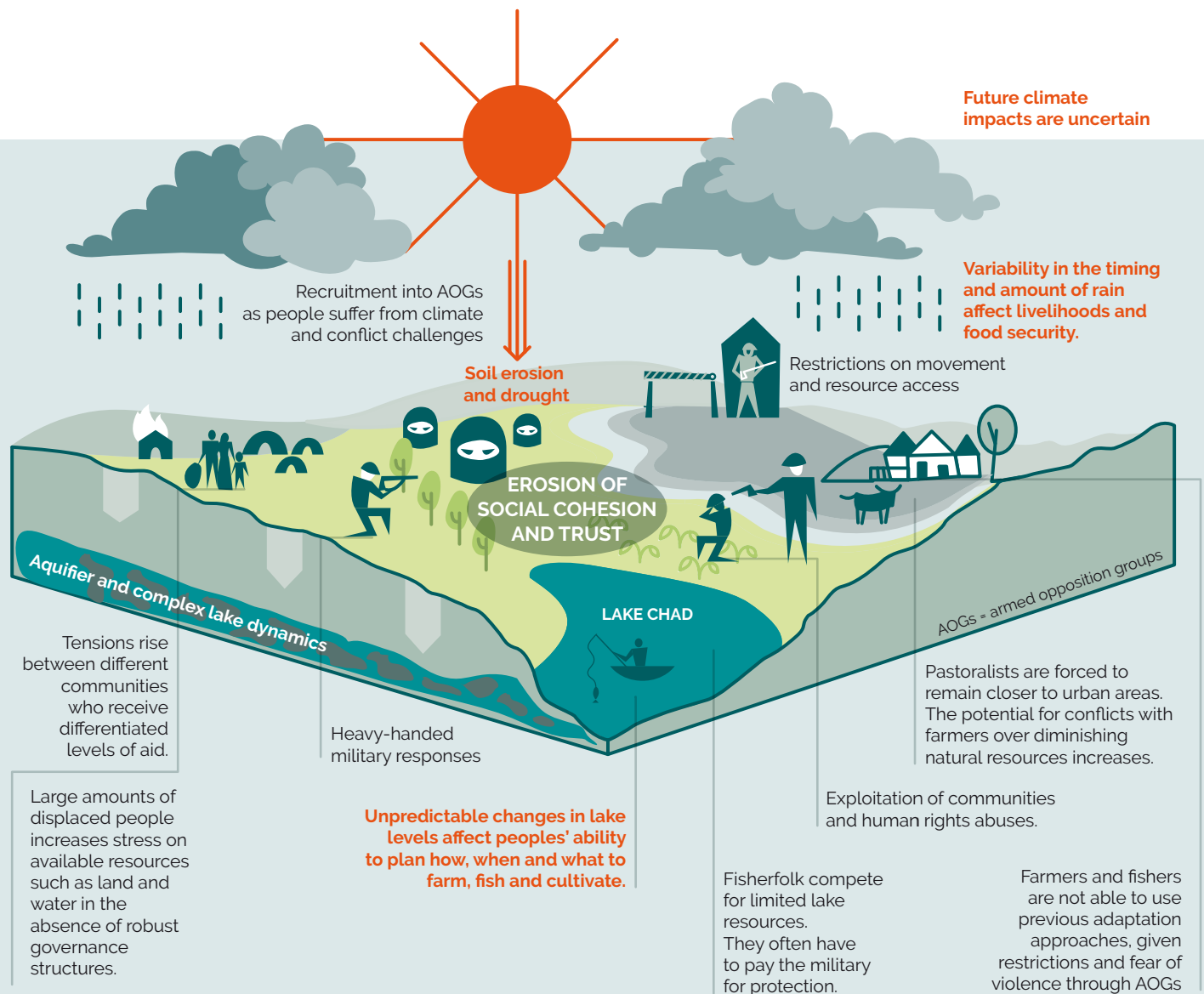


Source:  
NASA Goddard  
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This finding is critical because of its implications for what neighbouring governments and the international community should focus on in seeking to address the Lake Chad crisis. Supporting the people of the basin is not a function of saving Lake Chad from desiccation. Working from that premise may actually increase and spread regional vulnerabilities as it could further undermine livelihoods that rely on lake variability while implying significant opportunity costs in terms of diverting investment away from more important activities. Instead, funding as well as technical and governance support needs to address the interlinked climate-fragility risks and challenges as they are experienced by communities around the lake, as detailed below.

# THE CLIMATE CONFLICT TRAP

CLIMATE CHANGE CONTRIBUTES TO THE DRIVERS OF CONFLICT  
AND CONFLICT AFFECTS PEOPLES' ADAPTATION CAPACITIES



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## FOUR RISKS

While the situation varies significantly between and within countries, the region as a whole faces four climate-conflict risks.

- 1** The first risk is the dynamics of ongoing conflict that undermine people's ability to deal with the consequences of an increasingly variable climate. The adaptive capacity of communities is being undermined by the large-scale displacement of people, restrictions to people's movement as a result of the conflict and weaker social cohesion after years of violence.
- 2** The second risk is the challenge of increased competition for natural resources. The combination of large numbers of displaced people, restricted access to resources and diminishing land availability and quality has led to competition over natural resources in some locations. The mixture of climate and conflict challenges has disrupted previous governance and restitution measures, which now either no longer exist or are too weak to defuse conflicts.
- 3** The third risk is the ongoing challenge of recruitment by armed opposition groups. This takes place in the context of stark social and economic inequality, perceived lack of state legitimacy, increasingly vulnerable livelihoods and the lure of financial incentives offered to potential recruits. Climate change compounds this risk as it undermines already fragile economies and livelihoods.
- 4** Finally, the fourth risk is heavy-handed military responses to the violence that can themselves undermine communities' resilience and their ability to adapt to climate change. Military measures taken by the region's governments in response to the crisis have not addressed the root causes of the crisis. In fact, it has at times had the opposite effect, undermining livelihoods and climate change adaptation potential through blanket restrictions of access to certain areas as well as damaging the social contract through human rights abuses and perceived impunity.

In short, climate change and conflict dynamics interact in a vicious circle where climate change impacts feed additional pressures and tensions while conflict undermines communities' abilities to cope and adapt. Therefore, a core conclusion of this assessment is that, **if the region is to break free of the conflict trap, we must tackle the impacts of climate change as part of peacebuilding efforts.**

To plan for stabilization, peacebuilding and sustainable development in the region, one must pay close attention to the root causes and drivers of the crisis. These are: increasing inequality, marginalisation, weak governance, social exclusion, dominant gender norms and inequalities, demographic shifts and human rights violations. But climate change is also an important factor: Because climate change is deepening existing vulnerabilities, in order to address these vulnerabilities and support peace, we must take climate change into account.

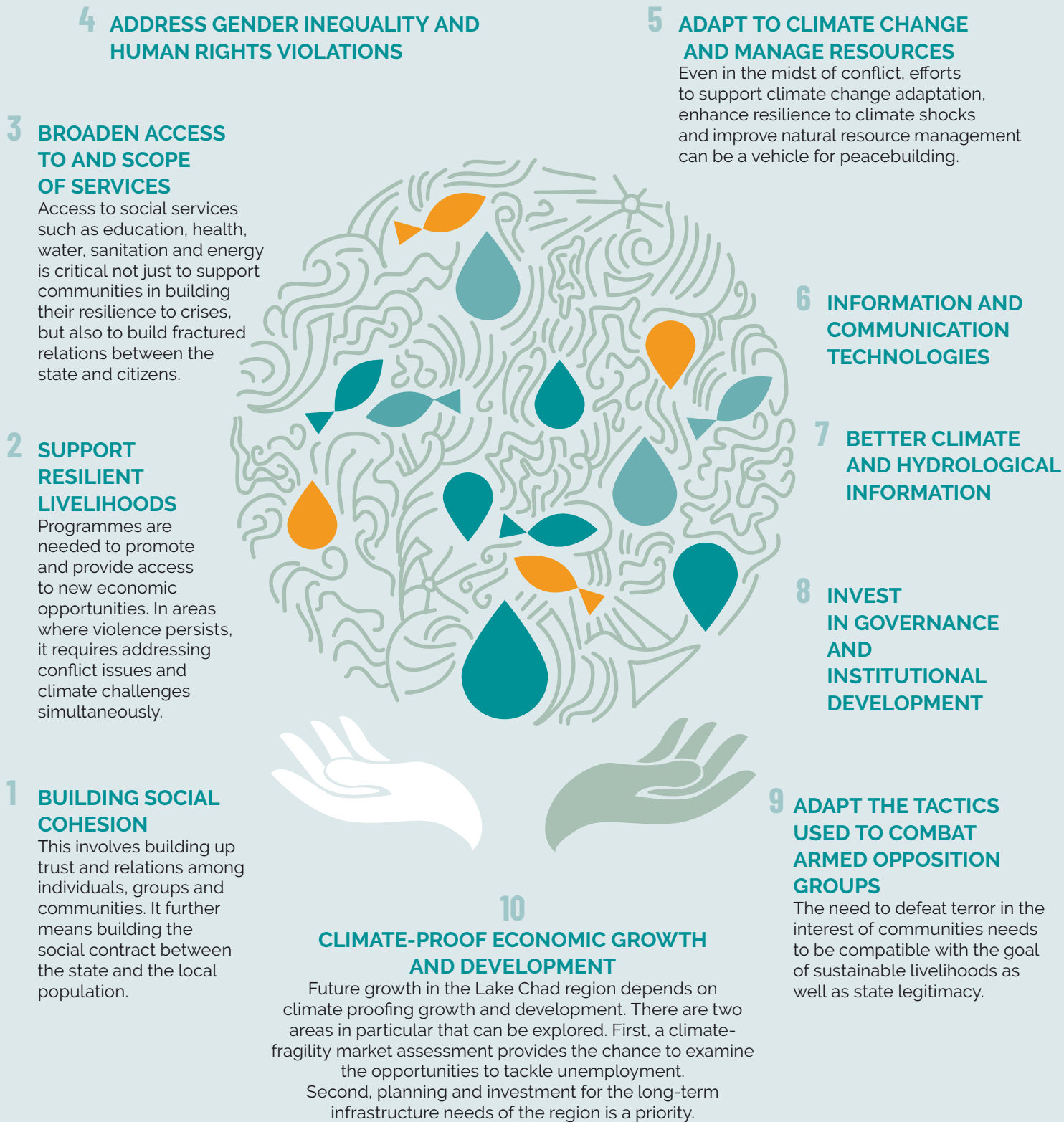
## ENTRY POINTS

The security, development and climatic challenges facing the Lake Chad region are complex and daunting. But there is much that can be done. This assessment proposes 10 positive interventions that can and should begin now:

- 1 Build social cohesion within and among communities.** This can be done by providing access to mechanisms for justice and dialogue among people in IDP/refugee camps and host communities, between former fighters and other communities and across different generations. Securing peoples' right to land can directly contribute to peacebuilding and enhanced social cohesion.
- 2 Support resilient livelihoods that go beyond the simple provision of jobs.** Livelihood support needs to be holistic and address all sections of society in order to restore social cohesion and local governance.
- 3 Broaden people's access to basic services such as education, health, water, sanitation and energy.** This is critical not just to support communities in building their resilience to crises, but also to rebuild fractured relations between the state and citizens.
- 4 Address gender inequality and violations of human rights.** Gender inequality and human rights violations are a major challenge in the region. For example, facilitating access to land and other productive assets, particularly for women who face difficulties in owning land, should be an important element of development and peacebuilding.
- 5 Support communities to adapt to climate change and improve natural resource management.** The growing risks of climate change can further entrench cycles of violence and hinder prospects of stability. Similarly, efforts to support climate change adaptation, enhance resilience to climate shocks and improve natural resource management can be a vehicle for peacebuilding.

# 10 ENTRY POINTS FOR ADDRESSING CLIMATE AND FRAGILITY RISKS IN THE LAKE CHAD REGION

POSITIVE INTERVENTIONS THAT CAN AND SHOULD BEGIN NOW



**6 Improve information and communication technologies in the region.**

Information and communication technologies (ICT) that support farmers, livestock herders and fisher folk with information on markets and prices can also support better early warning and preparedness against climate shocks, enable economic empowerment and help people determine their own futures.

**7 Provide better climate and hydrological information.**

Better information is not only relevant to policy makers, but can also be a major resilience booster for community members, especially those whose livelihoods depend on the weather.

**8 Invest in governance and institutional development.**

Local institutions in the region need support to strengthen policy, regulatory and oversight capacities, to tackle corruption, to provide quality social service delivery planning and to invest in the expansion of governance at local levels.

**9 Critically review and adapt the tactics used to combat armed opposition groups.**

Whereas governments in the region need to end the instability in the interest of communities, the means for doing so need to be compatible with the goal of sustainable livelihoods for, and better relations between communities in the region as well as the state legitimacy that will grow from enabling these.

**10 Support climate-proof economic growth and development.**

Future development in the Lake Chad region depends on making economic growth more resilient to climate change. This can be achieved if long-term infrastructure needs become an investment priority, and traditional markets in the region are revived, including those across international borders. A climate-fragility market assessment would not only examine the opportunities to tackle unemployment, but also address the severe environment and climate aspects behind this unemployment.



## CONCLUSION

Lake Chad needs an integrated push on many fronts to halt the negative spiral and put the region on a more positive track. Once on a positive track, Lake Chad could be a major asset to peace and security in the region. Conventional approaches to stabilising volatile contexts have limitations when tackling resource conflict if they do not take climate change into account. Therefore, a core conclusion of this assessment is that the impacts of climate change have to be tackled alongside conflict challenges in stabilisation and peacebuilding efforts to ensure that the region successfully breaks out of the conflict trap.

Ultimately the Lake Chad region is emblematic of the global need to adopt a resilience-focused approach in areas affected by inter-related climate and security challenges. As well as afflicting the lives of the inhabitants of the lake and its surroundings, the impacts of this complex conflict are also reverberating further afield.

Yet Lake Chad need not and should not become a byword for doom and gloom. If peace is established and the lake is carefully managed by the four countries that share it, then Lake Chad could once again become an engine for sustainable livelihoods and stability in the region, increasing food security and reducing poverty.

While this assessment focuses on the Lake Chad basin, it should resonate beyond the region. The region's challenges and entry points are context-specific, but what the report demonstrates is of global import: climate-proof and conflict-sensitive interventions represent better value for the money and offer a better chance of delivering a lasting peace.

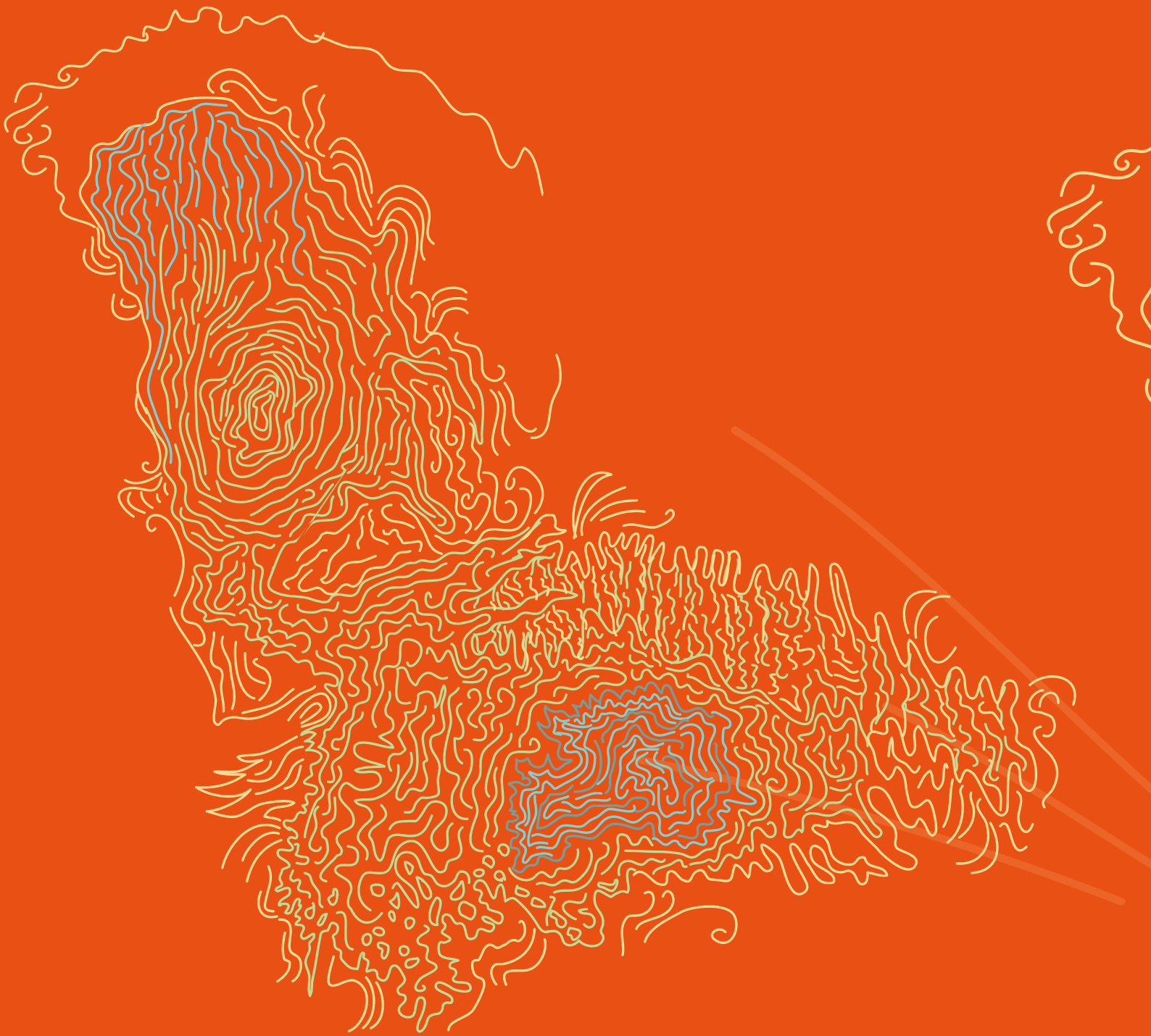




# GUIDING PRINCIPLES FOR EFFECTIVE ENGAGEMENT

- 1 Ensure meaningful participation of civil society**, in particular of all women, young people, people with disabilities and those from other marginalised groups, in the planning and implementation of responses.
- 2 Address governance deficits with conflict sensitivity**. It's not simply a humanitarian crisis; it is also a governance crisis. Avoid duplication through new structures, but where existing structures perpetuate inequalities and conflict risks, make sure these are not reinforced.
- 3 Ensure that financing is more predictable, flexible, adaptable, and prepared to fail**. And importantly, not only focused on more stable areas. While access can be a challenge in "hot conflict" areas, piling funding into stable areas further exacerbates inequality of resources, with aid being a major conflict commodity. This also requires a cultural shift in the donor mind-set from risk averse programming to risk prevention and management in difficult contexts and a willingness to invest in volatile regions and be prepared to fail.
- 4 Make sure that all programmes and strategies take account of both climate and conflict risks in a context-specific way**. Understanding the *local variation* of climate and societies needs to be the foundation of any effort to address climate-security risks. National, top-down assessments will not work. Local-level dynamics need to be considered in tandem to understand how changes in one place might affect outcomes elsewhere. More widespread use of climate-fragility assessments to inform strategies and programming in fragile contexts affected by climate change is a first step. A second is to keep assessments ongoing and up-to-date to reflect the dynamic nature of the risks involved.
- 5 Monitor and evaluate all interventions for intended and unintended impacts on conflict and fragility risks** and be ready to adjust implementation to address changing conditions on the ground.
- 6 Share ideas and lessons learned across the different sectors and countries** within the region, and facilitate relevant south-south cooperation from outside the region to identify pilots, new approaches, or tried and tested approaches to scale up.





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