



This is a repository copy of *Understanding the politics of climate security policy discourse: the case of the Lake Chad Basin*.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/184826/>

Version: Accepted Version

---

**Article:**

Daoust, G. and Selby, J. orcid.org/0000-0002-7574-9660 (2022) Understanding the politics of climate security policy discourse: the case of the Lake Chad Basin. *Geopolitics*, 28 (3). pp. 1285-1322. ISSN 1465-0045

<https://doi.org/10.1080/14650045.2021.2014821>

---

This is an Accepted Manuscript of an article published by Taylor & Francis in *Geopolitics* on 02 Jan 2022, available online:

<http://www.tandfonline.com/10.1080/14650045.2021.2014821>.

**Reuse**

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

**Takedown**

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing [eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk) including the URL of the record and the reason for the withdrawal request.



[eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk)  
<https://eprints.whiterose.ac.uk/>

# **Understanding the politics of climate security policy discourse: the case of the Lake Chad Basin**

Policy discourse on the conflict and security implications of climate change has repeatedly found it to be overstated, misleading, and out of line with the balance of scientific evidence. However, the reasons for this recurring science-policy divide have not yet been systematically investigated. To explore this issue, we examine the case of Lake Chad, which over the last decade has become a poster child for climate conflict. We seek to understand and explain how this climate security narrative has gained such traction. Drawing on interviews and documentary analysis we examine the key practices, interests and hierarchies underpinning the narrative's rise and reproduction, and show that it is essentially a political construct, reflecting a combination of questionable epistemic manoeuvres and geopolitical, economic and climate mitigation agendas. Our findings suggest the need for change, and increased caution, in how the climate security community engages with scientific evidence.

Keywords: climate change; environment; conflict; security; Lake Chad

## **Introduction**

That there exists a sharp divide between mainstream policy and academic discourse on the conflict and security implications of climate change is, by now, well known. Within liberal international policy circles it has become a commonplace to connect climate change and conflict. This includes identifying future warming as a significant threat to national and international security, and linking specific civil conflicts (for instance in Darfur, Mali and Syria) to warming which has already occurred. Among researchers, by contrast, there is little or at most a thin consensus on the subject, and the overall impact of climate change on conflict is typically viewed as both low and highly uncertain (e.g. Gleditsch and Nordås 2014; Mach et al. 2019; Salehyan 2008; Selby 2014; Theisen, Gleditsch, and Buhaug 2013), and policy claims about specific cases have repeatedly been found wanting (see e.g. Verhoeven 2011 on Sudan; Benjaminsen et al. 2012 on

Mali; Selby et al. 2017a on Syria). Indeed, the Intergovernmental Panel on Climate Change concluded in its Fifth Assessment Report that, although economic, institutional, or other factors associated with violent conflict may be sensitive to climate change and variability, ‘collectively the research does not conclude that there is a strong positive relationship between warming and armed conflict’ and that ‘[c]onfident statements about the effects of future changes in climate on armed conflict are not possible’ (Adger et al. 2014, 772-73).

Yet while a sharp science-policy divide on the conflict and security implications of climate change is clear, the reasons for this are not, and have not yet been systematically investigated. There exist numerous studies of climate security as discourse. However, in line with contemporary critical security studies’ predominantly constructivist leanings, most focus on the specific ways in which climate change and the environment have been ‘securitised’, and on the content and actual or potential consequences of this (e.g. McDonald 2013; Trombetta 2009; von Lucke et al. 2014; Warner and Boas 2019). Of the few studies to have explored climate security discourse in more materialist fashion, most emphasise either how it reproduces colonial tropes and assumptions (Hartmann 2014; Verhoeven 2014) and/or how it reflects the worldview and interests of the US military establishment (Carr 2010; Hartmann 2010; Selby and Hoffmann 2014). Moreover, there are to the best of our knowledge no studies of how any individual ‘climate conflicts’ have become represented and constructed as such within international policy discourse.

This article examines the case of Lake Chad, a vast, shallow endorheic lake at the junction of Cameroon, Chad, Niger and Nigeria which in recent years has become central to international policy discourse on climate security. Since 2009-10, after attempts by the Nigerian military to suppress what would become known as ‘Boko

Haram’, the Lake Chad Basin has been home to a deep security, governance and humanitarian crisis embroiling all four states and involving widespread civilian casualties. Boko Haram’s spread from north-eastern Nigeria to neighbouring countries in 2013-14, the emergence of Islamic State West Africa Province in 2015-16, attacks on state and civilian targets (including widespread violence against civilians), and military responses by national and regional forces (including violent counterinsurgency measures) have led to the internal and trans-border displacement of nearly 2.9 million people and acute economic and food insecurity (see e.g. Magrin and Pérouse de Montclos 2018; Nwankpa 2020; OCHA 2021).<sup>1</sup> Climate change has been widely identified as a significant contributory factor to this: it is suggested that Lake Chad has been drying, shrinking and even disappearing; that this is attributable to global anthropogenic climate change; and that this has been a significant causal or contributory factor in the on-going security crisis (we refer to this as the ‘Lake Chad climate security narrative’ in the remainder of the text). This narrative has been advanced by heads of all four of the states bordering Lake Chad (Muhammadu Buhari of Nigeria, Mahamadou Issoufou of Niger, Idriss Déby of Chad and Paul Biya of Cameroon);<sup>2</sup> by the African Union; by the key regional institution, the Lake Chad Basin Commission (LCBC); by Barack Obama, John Kerry, Emmanuel Macron, Margot Wallström and other Western political leaders; by UN Secretaries General Ban Ki-moon and António Guterres, Deputy Secretary-General Amina Mohammed, and UN agencies; by European climate

---

<sup>1</sup> Although the term ‘Boko Haram’ is widely used in policy and media narratives, this is not the term the group uses to describe itself, and it perpetuates stereotypes that mask the complexity of the movement’s origins and aims (Ladbury et al. 2016). We use ‘Boko Haram’ here as this is the term commonly used in climate security narratives.

<sup>2</sup> We refer here to heads of state at the time of research, prior to the election of current Nigérien president Mohamed Bazoum and the death of Idriss Déby Itno in April 2021.

security think tanks; and across mainstream European, American, and African media. In turn, Lake Chad has repeatedly been invoked in policy-oriented forums and studies on climate security, including UN Security Council meetings on the subject (UNSC 2018b, 2019). The Lake Chad region was the focus of the first ever Security Council resolution to explicitly refer to the security impacts of climate change (UNSC 2017b, 7), viewed by climate security advocates as a ‘turning point’ in Security Council engagement with the issue (Smith et al. 2019, 12). Lake Chad has also been the most important case study focus of the G7 initiative *A New Climate for Peace* (adelphi 2017). Across these policy terrains, global anthropogenic climate change is identified as having local environmental consequences which have contributed significantly to the Basin’s deepening security and humanitarian crises. Crucially, though, the ‘Lake Chad climate security narrative’ has hardly any scientific basis – making it an ideal case for investigating the politics of climate security policy discourse.

To this end, this paper asks ‘how and why has the Lake Chad region become a poster child for climate conflict, fragility and insecurity, despite the absence of robust evidence to this effect?’ In answering this question, we attend to several issues simultaneously: the processes through which this narrative was initially constructed; the means through which it has been reproduced; the reasons for its persistence; and why Lake Chad has become such a recurring reference point within climate security policy discourse. We consider the contributions of a wide range of actors and processes to the emergence and reproduction of this narrative, analysing the roles of key state, non-state and inter-state actors alongside practices of representation and consensus-building. We also consider the relations between these actors and processes, and both immediate and longer historical causes. Put differently, we ask both how and why this narrative has come to be. Foucault (1980, 92-108) famously distinguished between ‘how’ and ‘why’

approaches to understanding power, the former involving ‘ascending analysis’ of the techniques, mechanisms and practices through which social realities are produced, and the latter involving ‘descending analysis’ focused on the interests, intentions and capabilities of powerful institutions, especially the state. Building upon this distinction – though not Foucault’s preference for ‘ascending analyses’: instead we treat the two analytical approaches symmetrically (Selby 2007) – we explore the representational and political practices through which the Lake Chad climate security narrative was created and is sustained, and the interests, agendas and hierarchies which underpin it.

Empirically, our analysis draws upon documentary analysis and interviews. We initially conducted an in-depth review of policy documents, expert studies, and contemporary and historical commentaries (including regional and international government and non-governmental organisation policy and strategy documents, meeting records, and speeches and statements by high-level officials, think tank and donor-funded research reports, and media reports) to identify the dominant narratives about climate change and insecurity in the Lake Chad region. This was followed by 25 semi-structured interviews conducted with foreign and regional government officials, international and regional organisation representatives, and academic and think tank researchers, plus subsequent correspondence.<sup>3</sup> These interviews examined key actors, events and processes, and associated interests and agendas, contributing to the emergence and reproduction of the narratives identified during the literature review phase. Interviews were conducted between March 2019 and February 2020, primarily by Skype, with a small number conducted in Chad. Our analysis also draws upon

---

<sup>3</sup> Ethical approval for this research was obtained from the Social Sciences and Arts Cross-Schools Research Ethics Committee at the University of Sussex, where this research was conducted (approval no. ER/GD209/3). Participants provided written or oral informed consent prior to interviews.

involvement in events including the February 2019 Multidisciplinary Expert Meeting on Livelihoods and Water in Lake Chad in the Hague, the 2019 Planetary Security Conference, and the January 2020 Colloque Méga-Tchad in N'Djaména.

We begin by setting out the core elements of the Lake Chad climate security narrative, and by showing that the narrative as a whole is without scientific foundation. We then analyse how and why this narrative could have gained such prominence and traction. We first consider ‘how’ this has happened, identifying and discussing what we see as the six main representational-cum-political practices through which this narrative was constructed, popularised and reproduced. We then turn to the ‘why’, examining the regional and international interests and power relations which have underpinned the emergence and reproduction of the narrative over the last decade. Our consideration of these factors is not intended to be exhaustive, being limited to those which emerged through our data analysis as the most significant; other ‘underlying’ factors such as the impacts of changes in the media and journalistic practice are arguably also important but are not discussed. We conclude by summarising our findings and considering their implications for research and policy on climate change and security.

### **A narrative without scientific foundation**

The ‘Lake Chad climate security narrative’ can be disaggregated into three connected claims: that in recent years Lake Chad has been drying, shrinking and even disappearing; that this trend is attributable to drought and in turn global anthropogenic climate change; and that through its impacts on livelihoods, this has been a significant causal or contributory factor in the on-going security crisis in the Basin, including the rise of Boko Haram. Each of these claims is problematic.

The core environmental claim within climate security discourse on Lake Chad is that in recent years the Lake has been ‘drying’, ‘shrinking’ or even ‘disappearing’ or

‘vanishing’ (AFP 2018; Nett and Rüttinger 2016; Ross 2018; UNEP 2018). Lake Chad is regularly described as having shrunk by ‘90% since the 1960s’ (Middendorp and Bergema 2019; Ross 2018; World Bank 2014). However, this is misleading. Lake Chad’s surface area indeed declined from about 25,000 km<sup>2</sup> in 1963 down to about 2,000 in 1985. In 1973, it split into two pools, and since 1985 the northern portion has frequently been dry. However, from around 1995 the lake’s total surface area has been relatively stable (GIZ and LCBC 2013; Lemoalle and Magrin 2014). Indeed, in recent years it has if anything been expanding: in 2018 it had a total area (including open water and water under vegetation) of approximately 12,000 km<sup>2</sup> (LIS 2020), and there is evidence that the total volume of water stored within the lake, including the aquifers beneath it, has been increasing (Pham-Duc et al. 2020; Vivekananda et al. 2019). Moreover, 1963 is misleading as a baseline for judging lake shrinkage, since the 1950s and early 1960s saw rainfall well above average such that Lake Chad was abnormally large. These trends are documented in recent peer-reviewed articles and other expert studies (GIZ and LCBC 2013; Goudoum and Lemoalle 2014; Leblanc et al. 2011; Lemoalle and Magrin 2014; Pham-Duc et al. 2020; Policelli et al. 2018; Vivekananda et al. 2019). Though some of these expert studies do refer, misleadingly, to Lake Chad as ‘shrinking’ (Gao et al. 2011; Mahmood and Jia 2019) – implying that this is a current and on-going trend – to the best of our knowledge, no scientific studies show that Lake Chad has been declining in recent years.

In climate security discourse, Lake Chad’s ‘decline’ is consistently attributed to increased and more extreme drought associated with global anthropogenic climate change (e.g. Krinninger 2015; Nett and Rüttinger 2016; Osuoka and Haruna 2019). Yet this too is misleading. While a number of studies link precipitation (and temperature) variations to changing river flows into the lake (e.g. Coe and Foley 2001; Mahmood and



Jia 2019; Nour et al. 2021), there are to the best of our knowledge no scientific studies of the impacts of global anthropogenic climate change per se on lake levels; the basis for the assumed linkage between the two is instead evidence of the effects of ‘climate variability’, a natural phenomenon that can and does occur independently of greenhouse forcing. Moreover, rainfall levels have been increasing across the Lake Chad basin since around 1990 (Adeyeri et al. 2019, 2020; Okonkwo, Demoz, and Gebremariam 2014; Zhu et al. 2019). This mirrors patterns across the Sahel (Nicholson 2013; Panthou et al. 2018; Taylor et al. 2017) and is in line with climate change attribution and modelling studies, which link climate change with rainfall increases in the Sahel rather than with drought (Dong and Sutton 2015; Hoerling et al. 2006). Extreme rainfall events have increased over the eastern Sahel region, including Lake Chad, since the 1990s (Adeyeri et al. 2019; Panthou et al. 2018), which should have translated into increased run-off into the Lake. In fact, however, flows into Lake Chad have not recovered since the 1990s: while rainfall levels have significantly increased, river flow has not (Adeyeri et al. 2019; Magrin and Pérouse de Montclos 2018; Zhu et al. 2019). As to the reasons for this, though some reports (LCBC 2011; Lemoalle and Magrin 2014) and one recent scientific study (Nour et al. 2021) suggest to the contrary, the majority of scientific analyses identify local human activities, especially irrigation withdrawals and dam construction, rather than rainfall variation, as the major cause of recent low river flow in the basin and the lake’s minimal recovery since the 1970s-80s (Mahmood and Jia 2019; Zhu et al. 2019; see also Asah 2015; Tellro Waï et al. 2014).

The final strand of the Lake Chad narrative links the Lake’s decline and other climate change effects to the regional security crisis, including the rise, expansion and intensification of Boko Haram and associated ‘Islamist’ violence. Chad’s former president Idriss Déby has claimed that ‘the disappearance of Lake Chad is a security

crisis that is fuelling terrorist groups like Boko Haram’ (UNCCD 2015). According to Nigerian president Muhammadu Buhari, ‘the diminishing size of the Lake is at the root of the... radicalization of teeming youths in the region who are recruited to serve as foot soldiers in the insurgency’ (The Cable 2021). German Foreign Affairs Minister Heiko Maas has stated that ‘[a]s Lake Chad shrinks, the livelihoods of entire populations are disappearing – the perfect breeding ground for extremism and terrorism’ (UNSC 2019, 12). And UN Deputy Secretary-General Amina Mohammed has averred that climate change effects ‘provided a breeding ground for recruitment by groups such as Boko Haram’ (UNSC 2018b, 3). It is widely claimed in policy-oriented and media reports that climate change has created or exacerbated resource scarcities and increased local migration, intensifying livelihood insecurities and competition over land and water resources, in turn exacerbating tensions between communities – between occupational groups, or displaced and host communities – and supported militant recruitment (Darby 2015; Eichelberger 2014; Nett and Rüttinger 2016; Osuoka and Haruna 2019). Though sometimes portrayed as primary causes of the region-wide crisis, more usually these factors are identified as one important contributor to the crisis amongst others.

Yet even with this qualifier, the case for linking environmental change and the region’s on-going crisis is thin. Unlike in Syria, for instance, where climate change has been identified as a contributory factor in civil conflict (Gleick 2014; Kelley et al. 2015), there exist no peer-reviewed studies of which we are aware that show how climatic changes have fed into the emergence of ongoing armed conflict around Lake Chad (though some journalistic accounts and think tank reports make these links). One study suggests that water scarcity contributed to violent conflicts around Lake Chad during the 1970s-90s (Okpara et al. 2015), but the one peer-reviewed study to examine climate-water-conflict connections in the region since 2009 finds no evidence of causal

links (Okpara, Stringer, and Dougill 2017). It is not even clear what the relevant causal connections are claimed to be: while in Syria a particularly extreme three-year drought is claimed to have sparked mass migration from the country's northeast, contributing to unrest in host regions (see Selby et al. 2017a for critique), no equivalent causal account is found regarding Lake Chad. Most existing literature on the rise of Boko Haram does not even mention the role of local environmental changes or climate change (e.g. Anugwom 2019; Comolli 2015; Mustapha 2014; Nwankpa 2020; Pérouse de Montclos 2014). And Lake and rainfall levels were increasing when Boko Haram activity intensified around 2009-10 and cross-border violence expanded in 2013-14. While the Lake Chad crisis clearly has various environmental or ecological dimensions, academic studies have consistently interpreted these as centred on the frontier-style expropriation of land and water resources by elites and state authorities (Mustapha 2014; Watts 2018; also Okolie 1995), rather than on changes in Lake levels or environmentally-induced scarcities. Finally, numerous studies point not just to tensions resulting from environmental changes, including changing Lake levels, in the region but also shared resource management systems and shifts in livelihood strategies and mobility and settlement patterns (Fougou and Abdourahamani 2018; Kolawole 1988; Rangé and Abdourahamani 2014; Sarch and Birkett 2000).

As in other cases (Selby et al. 2017a, 2017b), it would be impossible to demonstrate that climate change has not been a factor at all in the Lake Chad crisis; indeed, we do not discount or dismiss the possibility that future research may identify significant linkages between the two. However, as it stands the Lake Chad climate security narrative is without scientific foundation, by which we mean not merely that the evidence on it is limited and in places contradictory – as it is – but that none of its three core sub-claims currently has support within the scientific literature. Specifically,

there are to the best of our knowledge no scientific studies that show either a) that Lake Chad has been progressively shrinking in recent decades (but plenty that find it to have been relatively stable); or b) that changes in the Lake are attributable to global anthropogenic climate change; or c) that there exist causal connections between changes in the Lake and the ongoing regional security crisis. While the possibility of important linkages between climate change and this security crisis cannot be discounted, at present there is no meaningful evidence to this effect.

### **Six representational practices**

This dearth of evidence raises questions about how and why the case of Lake Chad has become so prominent and persistent within climate security policy discourse.

Considering first the ‘how’, we suggest that six representational (and simultaneously political) practices have been crucial to this narrative’s rise and reproduction: visualisation, climatisation, securitisation, validation, evasion, and organised ignorance.

#### ***Visualisation***

Visual images of a supposedly disappearing lake – a threatened ‘oasis in the desert’ (Egbas 2018) – are what make the case of Lake Chad so compelling. Policy and media reports often forefront such images, demonstrating through aerial shots or satellite imagery how the Lake is surrounded by the Sahara, or is far smaller than it once was (Darby 2015; Ministry of Foreign Affairs 2018; Usigbe 2019; World Bank 2014). The Lake Chad narrative is not unique in its reliance on images. Photographs, video footage and satellite images – of trapped polar bears, declining ice coverage, and so on – have long been central to public and media communication on climate change (Doyle 2007; Manzo 2010). Most climate security stories make extensive use of visual depictions, especially of drought (cracked earth and parched fields) and ‘caravans’ of migrants, the

juxtaposition of which is often taken as incontrovertible evidence of climate change impacts (Bailey and Green 2015; Zastrow 2015). The idea – and images – of a desert engulfing a huge lake, together with the millions of livelihoods dependent on it, have proven particularly compelling for international policy audiences. ‘I don’t see any country having something that emblematic as the Lake Chad’, observed one UN representative (interview, May 2019). As a think tank researcher observed, the narrative of the shrinking lake ‘was very clear, visible, easy to show pictures and maps to policy makers ... It kind of strikes to the heart. You don’t need to interpret graphs and complicated climate models ... It’s much easier to talk at a high level’ (interview, June 2019).

Particularly influential have been a set of NASA satellite images dating back to 2001 and later taken up by the UN Environment Programme (UNEP) (NASA Earth Observatory 2001; UNEP 2009). These have been used in policy and media reports on climate change and Lake Chad (Darby 2015; Musa 2008; Nett and Rüttinger 2016; UNEP 2011), policy conferences (e.g. the 2018 Saving the Lake Chad conference in Abuja), and documentaries (e.g. Al Gore’s *An Inconvenient Truth*). Juxtaposing images from 1973 to 2001 – and 1963 to 2007 in UNEP’s illustrations – these provide a stark visual representation of the Lake’s demise: ‘If you’re trying to tell the story ... these satellite images, aerial images [provide] a very powerful message’ (think tank researcher, interview, June 2019). These sets of images are misleading, however. Using arbitrarily selected dates they depict the Lake as constantly declining in size when, as Magrin (2016, 211) observes, ‘[t]aking into account the seasonal and annual lake level variations, choosing different dates could have shown exactly the opposite’. They draw attention to open water rather than vegetation-covered areas, which covers thousands of square kilometres and representing up to three-quarters of the Lake’s total area (Leblanc

et al. 2011; Lemoalle and Magrin 2014). And the images are now rather dated – which did not impede their continued use (e.g. Darby 2015; Nett and Rüttinger 2016; Ndukong 2017).

Even if such visualisations were accurate this would still not establish anything about the reasons for Lake Chad's decline or its economic, political and conflict consequences. Yet the power and repetition of such simple visual images is such that questions of causality seem to become secondary, academic, even irrelevant. They are taken to speak largely for themselves as demonstrations of climate-conflict linkages, requiring only the odd bit of supporting evidence – such as the questionable observation that Lake Chad is the main source of livelihood for some 25 million to upwards of 40 million people (Darby 2015; Nett and Rüttinger 2016; UNSC 2016, 2018a). The authority and perceived scientific objectivity of the image trumps all else (Dodge and Perkins 2009; Rothe 2017).

### ***Climatisation and securitisation***

As discussed above, most discourse analytic studies of climate change and security examine how the former has been represented and constructed as a security problem – that is, 'securitised'. There has been some recognition of a reverse dynamic, in which social and environmental challenges, including security challenges, are framed as linked to or even caused by climate change – that is, in which social and environmental problems are 'climatised' during the course of scientific investigation or driven by security interests (Oels 2012; Wine 2020). These processes are distinct, often occurring independently. In the case of Lake Chad, they have become joined at the hip.

Climatisation came first. This followed a 2001 article by environmental scientists Michael Coe and Jonathan Foley that examined the relative impacts of climatic variability and water management practices on Lake Chad, concluding that its

‘observed shrinkage ... since 1975 can be attributed, in roughly equal parts, to climate variability and water use by humans’ (2001, 3355). This NASA-funded study did not mention ‘climate change’ let alone model its impacts. Nonetheless, subsequent NASA and media reports (Henderson 2001; NASA Earth Observatory 2001; O’Malley 2001) and series of UNEP (2002, 2004) reports attributed Lake Chad’s decline to ‘climate change’ and ‘global warming’. By the mid-2000s regional politicians, senior UN officials (including Secretary general Ban Ki Moon) and international media outlets were regularly repeating that Lake Chad was illustrative of the impacts of climate change. As a researcher from the region noted, this reflected a distinct shift in regional political discussions about the lake: ‘In the 90s, in the 2000s ... before Boko Haram became a major concern in the region, when they were discussing that, the whole issue of climate change was not really stressed. They were only stressing the fact that environmental stressors like rain patterns ... were a major problem’ (interview, March 2019). Crucially, these claims spread through simple repetition, without any basis in evidence on how global climate change was affecting Lake Chad.

This process of discursive climatisation elevated Lake Chad from being a mere local and regional concern to a matter of global political importance, paving the way for its securitisation. From around 2006-07 climate change and the shrinking lake were linked to conflict in the region – by the LCBC, regional politicians, UN agencies, high-level UN officials including the UN Secretary General, and in *An Inconvenient Truth* and early think tank reports on climate change and conflict (FAO 2009; Gore 2006; LCBC 2011; Musa 2008; Smith and Vivekananda 2007; UNSG 2011). These claims focused on general – and in some cases simply potential – resource-related conflicts. From 2013-14, climate change started being linked to Boko Haram specifically. Such claims to were made first by Nigerian politicians (Associated Press 2014; Nzeshi 2013;

see also Oramah et al. 2021) before being repeated in regional and international media and think tank reports, and then in the White House, Paris climate conference, and UN Security Council. As with the climatisation of its supposed decline, the discursive construction of Lake Chad as a security problem – and its worldwide circulation – occurred through simple repetition, without any specific basis in scientific evidence.

Two final points are worth making on these inter-linked processes. First, that these claims could each travel and be repeated so widely is due, in part, to the rise of and contemporary reliance on the World Wide Web, problems of access to scientific evidence, and the difficulty of adjudicating knowledge claims in a world of information overload. And second, though the climatisation of Lake Chad preceded its securitisation, it is no accident that these constructions reached the apex of global politics in tandem. Lake Chad's waters would not have become an international security concern had they not first been represented as illustrative of the impacts of climate change. Equally, Lake Chad would never have been so widely discussed in foreign ministries, climate negotiations and so on, had it not also been framed as a global security challenge. Processes of climatisation and securitisation were mutually reinforcing.

### ***Validation***

How, though, has the Lake Chad climate security narrative become so widely accepted as valid, trustworthy 'common sense'? Simple repetition – by multiple actors across different continents, institutions and domains – provides a large part of the answer. Yet in the absence of solid scientific underpinning, the narrative has also required something more: validation by particular, and particularly credible, spokespeople and witnesses. Three such practices have been especially important.



First, European think tanks have been crucial spokespeople for the Lake Chad narrative. Think tanks play key mediating roles in contemporary Western policy formation and legitimisation, as knowledge producers who are formally independent from government and political parties, yet nonetheless heavily funded by them and typically directing their activities (and narratives) towards them (Parmar 2019). Climate security is no exception: think tanks such as adelphi in Berlin, Stockholm International Peace Research Institute and Clingendael Institute in the Hague have been key generators, coordinators and disseminators of policy-friendly climate security knowledge. They play key roles in the securitisation of climate change and the climatisation of security, while reflecting their respective government's interests in positioning themselves as climate security leaders. They have produced reports on the linkages between climate change and instability around Lake Chad, and on the broader theme of climate security using Lake Chad as a reference point (Krampe, Scassa, and Mitrotta 2018; Nagarajan et al. 2018; Vivekananda and Born 2018; Vivekananda et al. 2017). Through these reports, policy-facing events (like the annual Planetary Security Conference), extensive international networks and well-honed communications operations, think tanks have been crucial amplifiers of the Lake Chad climate security narrative.

Select 'local' actors from the Lake Chad region have also been important spokespeople, contributing personal testimonies and helping to concretise and authenticate an otherwise abstract, European-dominated set of claims. Regional heads of state have been key advocates, with their statements even cited as 'evidence' of climate security claims (UNSC 2017a, 2017d). Former Nigerian environment minister and current UN Deputy Secretary-General Amina Mohammed has repeatedly spoken on the subject, drawing on her personal observations of Lake Chad in Security Council meetings and other forums (Mubaraq 2018; UNSC 2018a, 2018b). Representatives of

the LCBC are repeatedly turned to or cited to provide evidence on the plight of the lake (Climate Diplomacy 2019; Ministry of Foreign Affairs 2018; UNSC 2018a). And civil society actors from the region have been held up as witnesses to the impacts of climate change. One researcher from the region noted how these local actors are brought into high-level forums ‘to talk about how the lake was disappearing, how everything is in crisis, everything is terrible in the region’ (interview, February 2020). Key amongst these have been Hindou Oumarou Ibrahim, coordinator of the Fulani Indigenous Women’s Association of Chad, who has spoken at Security Council meetings on climate security and was the international civil society representative at the signing of the 2015 Paris Agreement (United Nations 2016; UNSC 2016, 2018b). That said, such local actors exercise agency and have their own agendas: Hindou Ibrahim, for instance, has used climate security platforms to draw attention to the socioeconomic impacts and drivers of environmental changes beyond climate change, the rights of Indigenous communities and the need for just climate action.

Third, direct observation by external actors has had a key validating role. Former UN Secretary-General Ban Ki-moon cited his personal observations of the shrinking Lake Chad in speeches and high-level events (UNSG 2007, 2008). A joint 2018 UN-African Union mission to Lake Chad led by Sweden’s foreign affairs minister Margot Wallström and Amina Mohammed similarly enabled first-hand observations, cited in subsequent speeches on climate security (UNSC 2018b; UNSG 2018). In 2017, 15 UN Security Council representatives visited the region to observe and assess the security and humanitarian situation and root causes of conflict, including ‘the impact of climate and ecological changes’ (UNSC 2017d, 31). Subsequent member statements described ‘powerful and touching’ encounters and observations on the situation around the Lake. ‘We saw first-hand the adverse effects of climate change on the stability of

the region', reported Sweden's representative (UNSC 2017c, 7). While we may discount this claim as a statement of fact – short field missions provide no basis for directly 'seeing' environmental changes or their causes – such observations have performed a powerful validating function within narratives about Lake Chad.

### ***Evasion***

If the factors above speak mainly to how the Lake Chad climate security narrative has been constructed, our final two practices focus instead on its reproduction and persistence, especially how holes in the narrative have been hidden and criticisms deflected. On the one hand, ambiguity, equivocation and evasion have been key. Discursive formations are not 'blocks of immobility'; instead, they are flexible things which to survive have to bend as circumstances and criticisms require (Foucault 1972, 73-74). Moreover, narratives and even specific texts are often internally contradictory, with slippages and compromises arising from conflicting perspectives and demands. This is clear in the Lake Chad narrative, where the absence of supporting evidence of either a shrinking lake, or climate change impacts on conflict, gives rise to tensions and contradictions.

A case in point is adelphi's 2019 report, *Shoring Up Stability*, funded by the German and Dutch governments as part of the G7 climate security initiative (and thus a product of, and constrained by, assorted political commitments) and yet also makes a sustained effort to engage with scientific evidence. Three evasions or equivocations stand out in the report. First, it is framed as concerned with 'climate and fragility risks in the Lake Chad region' and begins by describing climate change as having 'profound adverse impacts on the conflict, intensifying existing dynamics and creating new risks' (Vivekananda et al. 2019, 9-10) – but then, in its actual analysis of key risks (pp. 48-65), hardly mentions climate change. Second, in common with much policy discourse

on climate security, it frames climate change as ‘an important factor’ in conflict (p. 13), leaving it unclear, and to the reader to decide, what this means (one of ten factors? one of a hundred?) (Selby et al. 2017b). Third, the report argues that ‘crucial climate vulnerabilities’ relate to ‘uncertainty regarding future climate projections’ and ‘significant uncertainties over ... future water availability’ (p. 44), recasting the climate-fragility problem as having not yet arrived, in contradiction to the claim that climate change is already ‘compounding’ conflict.

The LCBC’s engagement with the climate security narrative has also been strikingly contradictory. Its own reports and plans – including the 2015 Lake Chad Development and Climate Resilience Action Plan, a major reference point for both its own strategies and donor programming – note that claims about the lake’s disappearance due to climate change are ‘not confirmed by the most recent scientific work’ and point to rising lake levels since the 1980s (LCBC 2015, 1; also LCBC 2019; LCBC and GIZ 2017). Yet the ‘disappearing lake’ narrative was central to the LCBC’s Saving Lake Chad conference in 2018 and is repeated in numerous other contexts. At the 2019 Planetary Security Conference in the Hague, for instance, Mohammed Bila, remote sensing expert with the LCBC, spoke of Lake Chad as ‘a region of recurrent drought’ and appeared to endorse the conference’s framing of Lake Chad as a region of ‘climate-related security risks’ (Bila 2019; also Climate Diplomacy 2019), despite adopting a very different tone at the expert meeting on Lake Chad directly preceding it.

Such ambiguous, inconsistent formulations plague public and policy discourse on climate security, arising especially (as with the LCBC) when actors are caught between rival political demands, or (as with adelphi’s report) when available evidence falls short of political requirements. Headline messages are typically framed to conform to dominant political and funding agendas, while the detailed body of reports and

statements – to which policymakers will not pay much heed – suggest rather differently. Given their positioning as intermediaries, think tank experts, in particular, are regularly forced to navigate these tensions, and are keenly aware of them. For instance, several climate security think tank researchers have commented to the authors – during conferences, consultations, and informal conversations – that they follow a practice of not correcting policymakers when they make claims that they know to be false. Errors, evasions and equivocations multiply – and the narrative can persist.

### ***Organised ignorance***

The Lake Chad climate security narrative has also been sustained through what we might call – drawing on Charles W. Mills (1997, 18-19) on the race blindness of Western political theory – ‘organised ignorance’. This has involved a deliberate and systematic disinterest in amassing and utilising scientific evidence and, when this strategy has failed, rejection of uncomfortable facts and analysis.

There has been a striking lack of interest by proponents of the Lake Chad climate security narrative in commissioning research on the subject. Neither the state actors mentioned above, nor anyone else, has been commissioned to undertake new research on the precise impacts of climate change in the Lake Chad Basin. France has funded expert reviews on the political, economic, and social dynamics of the Lake Chad crisis, but these have not involved new primary research (Lemoalle and Magrin 2014; Magrin and Pérouse de Montclos 2018). Germany funded new research on the Basin’s hydrology and water resources and future climate change scenarios (GIZ and LCBC 2013, 2015), while the aforementioned adelphi report includes new analysis of the basin’s hydrology (Vivekananda et al. 2019). But there has been no analysis of the impacts of global anthropogenic climate change per se. Moreover, no in-depth primary research has been commissioned on how specific environmental changes in the Basin

have contributed to its security crises. The only recent research on the impacts of climatic versus local human (dam-building and irrigation) factors on river flows and lake levels was commissioned by China (Mahmood and Jia 2019; Mahmood, Jia, and Zhu 2019), linked not to interests in climate change or security but to a proposed regional infrastructure project. This is all the more striking because the main Western state proponents of narrative – the Netherlands, Sweden, Germany and France – all aspire to being evidence-led; and because of the pivotal place of scientific knowledge and assessments in most climate change policy-making.

Paralleling this has been an unwillingness to utilise evidence or even acknowledge issues contrary to the dominant narrative. With some exceptions (e.g. Darby 2015; Eichelberger 2014; Nett and Rüttinger 2016; UNEP 2011), climate security discussions of Lake Chad fail to mention the impacts of irrigation or dam-building. One also finds scant recognition (for exceptions see e.g. Eichelberger 2014; Prager and Samson 2019; Vivekananda et al. 2019) of the fundamentally political and economic drivers of the Lake Chad crisis – including the direct, intentional targeting of livelihoods by national militaries – despite the abundance of evidence to this effect (Magrin and Pérouse de Montclos 2018; Magrin and Raimond 2018). Whether intentionally or not, such uncomfortable evidence is for the most part simply excluded from climate security discourse on Lake Chad.

The same applies to evidence on whether Lake Chad is shrinking or not. Expert reviews and assessments commissioned by European governments conclude that the Lake is not shrinking (Lemoalle and Magrin 2014; Magrin and Pérouse de Montclos 2018; Vivekananda et al. 2019). Yet these conclusions have been widely ignored by policymakers, including governments that have funded them. For example, the Institut de Recherche pour le Développement's (IRD) 2014 expert review – funded by the

bilateral Fonds Français pour l'Environnement Mondial and prefaced by a French foreign ministry representative – concluded that ‘contrary to information that has been published in the press and on the Internet, the Lake is not in the process of shrinking or disappearing’ (Lemoalle and Magrin 2014, 140). Yet France’s then-Foreign Minister Laurent Fabius opened the Paris climate conference referring to ‘the spectacular drying of the Lake Chad and its disastrous consequences (Fabius 2015). And during one of three COP21 events on Lake Chad, France’s then-Environment Minister, Ségolène Royal, stated that ‘researchers of IRD should stop saying the Lake Chad is not disappearing’ (Magrin 2016, 205) – because regional heads of state were saying the opposite, according to an academic researcher from the region (interview, February 2020). adelphi’s 2019 conclusion that Lake Chad is not shrinking has likewise been widely ignored within policy circles. Despite its report being funded by the Netherlands, Germany and UNDP, Dutch, German and UN officials and organisations, among others, continue to speak of Lake Chad as shrinking, and of this as underpinning insecurity in the region (Middendorp and Bergema 2019; The Nation 2019; OCHA 2021; UNSC 2019; UNSG 2021). Regional actors, most prominently Muhammadu Buhari and other Nigerian government and LCBC officials, have also continued to speak of the shrinking lake and its security consequences (The Cable 2021; Ighobor 2019; Ogundele 2021; Peacebuilding Commission 2019; PM News 2019; UNSC 2021). As one researcher from the region observes, the scientific finding that the Lake is not shrinking ‘contradict[s] a narrative that has been perpetuated at the highest levels’:

There’s what the facts on the ground are, and by that I mean both satellite imagery and on-the-ground observation and... talking to people who live around the lake... [That] shows one thing, and then there’s what the political narrative is... In a context between facts and politics, what wins? (Interview, May 2019)

## **Four underpinnings**

While the above accounts for ‘how’ the Lake Chad narrative has been constructed and reproduced, we need also to consider the ‘why’ – that is, the interests, agendas and hierarchies which have tempted policymakers and institutions to embrace it. In doing so, we seek to explain several things simultaneously: the reasons for the myth of the shrinking lake; the agendas behind its climatisation and securitisation; and the reasons why this case has become such a prominent focus of international policy discourse on climate security. We identify four main ‘underpinnings’: politics of climate mitigation; regional political and economic interests; parallel international and especially European interests; and legacies of colonialism.

### ***Climate mitigation***

At the most general level, the securitisation of climate change has been driven by the conviction, whether well founded or not, that this will help push the issue of climate mitigation up national and international political agendas. Most early policy-oriented reports on the subject were produced not to guide action on climate security specifically, but to emphasise and ‘dramatise’ the seriousness of climate change and the need for rapid emissions reductions (Schwartz and Randall 2003, 7), informed by a belief that ‘if you can’t describe something as a security issue it’s not important’ (Burke 2019). In 2007, Western commentators – and later policymakers – latched on to Darfur as a case study in climate conflict not because of any wealth of evidence, but to push for increased US action on climate change by invoking a war that had received unusually extensive coverage in US media (Mamdani 2009, Sindico 2007). Moreover, as COP21 approached, efforts were ramped up to highlight the dangers of climate change by linking it to conflict and instability. Public and policy representations of the Syrian civil



war as a climate conflict reached their apex in 2015 for this reason. The Lake Chad narrative blossomed simultaneously. Many advocates of climate security discourse acknowledge these links, noting that their aim in emphasising climate security is to strengthen the case for increased mitigation ambitions and commitments (e.g. Smith 2019). Likewise, political leaders and activists in the Lake Chad region have partly invoked climate security narratives and the example of Lake Chad to call for mitigation action, and to demand accountability from those countries responsible for the bulk of carbon emissions (Adenike 2020; Biya 2017; Premium Times 2017). As one think tank researcher observed, explaining the mobilisation of the Lake Chad narrative: ‘It’s more around climate negotiations. Politicians use this narrative to get more support for more ambitious mitigation action... [They] use these examples to say this is... a much broader problem and we need to take it seriously’ (interview, February 2019).

Lake Chad has also been instrumental to, and instrumentalised within, efforts to push climate change onto the UN Security Council’s agenda and climate security into the UN system. Climate security advocates – notably Germany, Sweden and the Netherlands, plus their respective think tanks – have lobbied for and helped organise a series of Council sessions on climate change. They have pushed for climate risk assessment reporting to the Council, improved integration of climate change into UN mission mandates, climate sensitive prevention and stabilisation efforts, and increased ambition on emissions targets (Federal Foreign Office 2019; UNSC 2018b, 2019). Sweden, in particular, has pushed for the establishment of an ‘institutional home’ for climate security in the UN system, which came into effect with the establishment of the UN Climate Security Mechanism in 2018 (UNSC 2018b; Wallström 2017). Involving the Department for Political and Peacebuilding Affairs, UNDP, and UNEP, the Mechanism is intended to produce climate security/risk assessments and management

strategies for the Security Council and other UN bodies (Born, Eklöw, and Mobjörk 2019; Smith et al. 2019). To these ends, advocates have sought to mobilise persuasive examples and evidence of climate-security linkages. Sweden in particular used its Security Council tenure (2017-18) to promote the climate security agenda by focusing on regional cases, first of all Lake Chad (Ministry for Foreign Affairs 2019; Smith 2019). As a UN representative put it, regarding the focus on Lake Chad:

We had Sweden before, now we have the Germans ... It's being driven from the global level by the actors who are actually leading the global discussions on climate security ... The fact that they're chairing or leading this climate security work, then you have to show some results. You have to prove these issues are related. (Interview, May 2019)

### ***Regional political and economic factors***

None of this speaks to why Lake Chad specifically has been so extensively climatised and securitised or become such a poster child of climate security debates. It is to these questions that we now turn, highlighting three key regional interests and agendas, and then four international ones.

First, within the region the Lake Chad climate security narrative has functioned as an instrument of political legitimisation. It was Nigerian politicians who first sought to explain the Lake Chad crisis in relation to climate change. North-east Nigeria, where the crisis began, is a region shaped by histories of colonial and post-independence marginalisation, the appropriation of land and water resources through unequal agrarian development, and pervasive economic and political precarity (Archibong 2018; Bertoncin and Pase 2017; Hoffmann 2014; Kolawole 1991) – all of which are crucial to understanding the rise and expansion of Boko Haram (Anugwom 2019; Mustapha 2014; Watts 2018). The crisis itself began in 2009 following a Nigerian military crackdown on what had until then been a largely non-violent religious movement, and specifically

following the extrajudicial killing of the movement's leader Mohammed Yusuf (Anugwom 2019; Mustapha 2014). Nigerian leaders sought to represent matters differently, variously describing the crisis as simply terrorism, as fanaticism fuelled by hatred, as criminal violence, as caused by external actors and influences (Daily Independent 2014; Ekott 2013; Payne 2015; Vanguard 2019). Blaming climate change similarly allowed the Nigerian state to present Boko Haram as essentially socio-environmental and external in its origins, rather than a problem of their own making (recognising, of course, that this is not a universally adopted narrative among Nigerian or other regional officials). This was in line with established practice: the Sudanese state, for instance, deployed climate change to argue that the 2003-05 Darfur war was not caused by its own counter-insurgency violence but by drought (Verhoeven 2011), while just before the start of the Syrian civil war the Assad regime explained its critical water and economic problems similarly (Selby 2020). In these and other sites, 'climate change' can function as a depoliticising ally to state power, deployed by regimes to obscure and divert responsibility from their own roles in local crises. Likewise, the former Déby regime in Chad, which 'discovered the environmental cause in 2007' (Magrin 2016, 215), became an active proponent of the climate security narrative (Arsenault 2012; UNCCD 2015) amidst its ongoing record of repression and human rights abuses (Tubiana and Debos 2016). As a think tank researcher put it:

There's a very strong political interest in this narrative from the national governments, particularly the Nigerian government ... If this is how they portray the problem of terrorism, the instability is to do with a lack of water [and] nothing to do with weak governance, exclusion, marginalisation, human rights violations by security forces. (Interview, June 2019).

Or as a researcher from the region explained, the climate security narrative helps regional state actors to 'present themselves as victims' (interview, March 2019).

Blaming climate change for the ‘shrinking’ – or limited recovery – of Lake Chad also provides a way of obscuring the primary role of irrigation and dam-building. Since the 1950s-60s the Chari-Logone River, flowing through Cameroon and Chad and the main source for the lake’s southern pool, has seen its volume drop by at least 50% (GIZ and LCBC 2018; Lemoalle 2014). The Komadougou-Yobe River, flowing through Nigeria and Niger and feeding the northern pool, has reportedly declined by even more (GIZ 2015; Mahmood and Jia 2019; UNEP 2006). Nigeria, in particular, has constructed over 20 dams along the Komadougou-Yobe and its tributaries, reducing flow to the northern pool (Adeyeri et al. 2020; GEZ 2015). These and other local human actions are, as mentioned above, the major reason why Lake Chad has only minimally recovered since the 1970s-80s. In particular – though data is scant and inconsistent – Nigeria’s development of the Komadougou-Yobe may largely explain the non-recovery of the northern pool (here we extrapolate from Mahmood and Jia 2019; also Zhu et al. 2019). The impacts of water infrastructure development are recognised in some analyses of conflict in Lake Chad (e.g. adelphi n.d.). Yet regional officials have understandably not wanted to highlight this. As found in numerous contexts, climate change is regularly invoked to explain environmental changes and crises which are essentially the result not of greenhouse forcing but local economic development and mismanagement (e.g. Benjaminsen et al. 2012; Selby 2019).

Second, the LCBC specifically has reproduced the narrative because of the tensions generated by its dual water management and security roles. The LCBC was initially established, in 1964, to oversee the management of the Basin’s shared water resources. In 2012, as the crisis in north-east Nigeria was increasingly spilling across its borders, it was made the host of a regional coordination initiative against Boko Haram, the Multinational Joint Task Force (MNJTF), relaunching a joint security forced

initially established in the 1990s. Under the MNJTF, officially deployed in 2015, national military forces engage in joint cross-border operations against ‘terrorist’ groups (ICG 2020b; Sambo 2017). The LCBC was selected for this role not because of any particular expertise on security, but because it was the one pre-existing regional organisation which brought together the key state parties (Galeazzi et al. 2017; ICG 2020b). This development brought the LCBC new regional and international attention and resources, and opened the way for its embrace of the climate security narrative. A 2013 Five Year Investment Plan barely mentioned climate change, included no mention at all of Boko Haram, migration or other aspects of the regional humanitarian and security crisis – and was quite limited in scale and only ever partially funded (LCBC 2014). By contrast, the 10-year Lake Chad Development and Climate Resilience Action Plan, launched in 2015 by the LCBC, World Bank, and Agence Française de Développement, was premised on a broader understanding of regional climate, security and development challenges (LCBC 2015). With this dual environment-security role, expanded remit, and increased donor funding – but also being dominated by Nigeria: Nigeria contributes over half the LCBC’s operating budget and all executive secretaries have been Nigerian (Galeazzi et al. 2017) – it is little wonder that it became such a strong, if at times inconsistent, proponent of climate security claims.

Regional actors have, thirdly, sought to mobilise this narrative to attract climate financing. The aforementioned Lake Chad Action Plan was costed at over €900 million, and was the focus of a dedicated event during the COP21. The event – with speakers including the Presidents of Nigeria and Chad and the African Development Bank, and the World Bank’s then-Vice President for Africa Region, Makhtar Diop – centred on making the case for Green Climate Fund and climate adaptation financing to support it (TchadInfos 2015). The Action Plan also became an important element in the World

Bank's \$16 billion Africa Climate Business Plan (World Bank 2016). And climate security concerns feature heavily in the \$12 billion Regional Strategy for the Stabilization, Recovery and Resilience developed by the LCBC, African Union and UN agencies (LCBC and AU 2018). As a researcher from the region puts it, climate security discourse 'creates an opening to get some funding ... Within this global debate there's openings and opportunities for you to tap some resources that ordinarily you wouldn't have received' (interview, March 2019). For regional actors, drawing links between climate change and insecurity is a means of mobilising donor funds – 'a way of attracting financial assistance by connecting two issues that mobilise international donors' (ICG 2020a, 2).

The main individual project advanced on the back of the climate security narrative is an inter-basin water transfer to refill Lake Chad. This project – involving an over 2,000 km-long channel from the Oubangui River in the Congo Basin to the Chari River and Lake Chad – was initially proposed in the 1980s. It was revived in the early 2000s following the release of NASA's images of the 'shrinking lake' (IRIN News 2003). It gained further traction from the Lake's subsequent climatisation and securitisation, and following Muhammadu Buhari's 2015 election as President of Nigeria on a commitment to large-scale national infrastructure development (Adeniran and Daniell 2020). Nigeria and Chad have most actively promoted the project, with heads of state and government (and LCBC) officials calling for international support in forums including COP and UNSC discussions. In 2018, the Nigerian government and LCBC's 'Saving the Lake Chad' conference concluded that 'there is no solution ... that does not involve recharging the lake by transfer of water' (Government of Nigeria and LCBC 2018b, 5), recommending the establishment of a US\$50 billion fund to finance the project, sourced from African states and development partners. However, the

conference took place when the Lake was not declining, timed instead to capitalise on international attention to the region's security and migration crises, in particular following the UNSC's visit to the region in 2017 (Egbas 2018; Government of Nigeria and LCBC 2018a). As a UN representative explained, '[The] momentum for the water transfer project comes from the fact that the crisis of the Lake Chad suddenly exploded, 7 million people affected, loads of migrants crossing the Mediterranean' (interview, March 2019).

Studies have cast doubt on aspects of the project, including possible limited effects on lake levels, potential ecological and livelihood destruction, opposition from the Congolese government, security concerns and value for money – plus the fact that Lake Chad is not disappearing (CIMA International 2011; Diasso 2018; Magrin 2014). Most international organisation and European donor representatives have been critical of the project (GIZ 2015; Magrin 2014) – despite, in many cases, promoting the 'shrinking lake' and climate security narratives. Yet developments have occurred. In 2017, the Italian government agreed to finance a feasibility study. And PowerChina has signed agreements on feasibility studies and future infrastructure construction with both the LCBC and Bonifica, the Italian firm championing the project since the 1980s, raising financing hopes given China's broader investments in Africa under its 'Belt and Road' initiative (LCBC 2017, 2018; Ndukong 2017; also Adeniran and Daniell 2020). High-level officials including Muhammadu Buhari and Idriss Déby have continued to push the water transfer project during bilateral meetings and UNSC discussions (Ogundele 2021; UNSC 2021).

Interests in the project are diverse, ranging from the commercial opportunities it would generate – for contractors, technical consultants, oversight bodies, state security forces, private security contractors and politicians alike – through to political prestige

often sought through infrastructural mega-projects, through to interests in diverting attention from the root causes of the regional crisis. More crucially for our analysis here, the shrinking lake and climate security narratives are crucial props to them. As a UN representative observed:

The narrative that the lake is shrinking supports the drive to bring this inter-basin water transfer to the Lake Chad, to refill it, and the \$50 billion proposals and all these things ... Saying that the lake is not shrinking ... obviously goes contrary to that requests for support. \$50 billion is not small change. (Interview, May 2019)

And as a think tank researcher put it:

If the problem is ... weak governance, lack of provision of social services, then the solution is very governance heavy and the onus is on the national governments and the local governments to address this governance deficit. If you say that it's a technical problem, the lake is disappearing, the solution is to refill it, we don't need to change what we're doing in the region. (Interview, June 2019)

Indeed, the importance of the 'shrinking lake' to regional state actors can be seen from their reactions to recent reports questioning the narrative. The 2015 Action Plan discussed above emphasised the importance of redressing current governance and public investment shortfalls above re-filling the lake – an emphasis which, according to one donor country representative, 'did not go down very well with the political leadership in the four countries that share the lake, and that are much more comfortable developing a *mega* infrastructural water transfer project from the Congo Basin than securing *local* governance, basic services and infrastructure' (email correspondence, July 17, 2018). Similarly, adelphi's conclusion that Lake Chad is 'not a shrinking lake, but a fluctuating one' (Vivekananda et al. 2019, 43) was not well received by some in the region. As one interviewee observed, 'the words "the lake is not shrinking" in bold irritated a lot of people, and it's not necessarily that it's not true, but ... [if] the Lake



Chad countries read this, it's like "what the hell is going on?", because of the political narrative that's there' (interview, May 2019).

### *International political and economic factors*

Having addressed regional interests underpinning the Lake Chad climate security narrative, we now turn to international and especially European ones. First, European states' endorsement of the narrative has been a function of their broader – and deepening – concerns about security in and migration from the region. Since 2010, the Sahel as a whole has become a major focus of European security and migration policies (Bøås 2020; Bonnetcase and Brachet 2013; Lavallée and Völkel 2015). Since Boko Haram's spread from north-eastern Nigeria in 2013-14, and the emergence of Islamic State West Africa Province in 2015-16, the Lake Chad region has become a particular area of concern – a 'new frontier' in counter-terrorist operations (Reeve and Pelter 2014). As a bilateral donor representative explained:

From a European perspective there's a lot of focus on Chad and Mali and Niger. These places are the new neighbourhood ... The frontier has kind of been moved further south, so we need to know what's going on there in order to protect our borders. (Interview, May 2019)

Boko Haram was presented as a particularly dangerous threat: according to former French President François Hollande, 'Boko Haram is the deadliest terrorist group in the world... It is Boko Haram who killed, murdered, kidnapped, raped the most' (Hollande 2016). The region has also been represented as a particularly important 'transit' region for migrants from sub-Saharan Africa (European Commission 2020; Robert 2017). And it has been the focus of international military involvement against Boko Haram, through France's Opération Barkhane and EU, France, UK, and US support to the MNJTF (ICG 2020b), alongside the wider EU-supported G5 Sahel Joint

Force and US-led Trans-Sahara Counterterrorism Partnership. And Lake Chad's location 'at the heart of the Sahel' has been another reason for the political focus on it. These concerns and constructions have directly shaped how Lake Chad is framed and mobilised within climate security discourse. They have mattered in terms of timing, with the height of international concern over Boko Haram coinciding with COP21. And they have also mattered substantively, with concerns about terrorism and migration figuring strongly in European engagements. Italy's agreement to finance the water transfer feasibility study, for example, refers to 'the crises affecting Lake Chad is [sic] ... contributing to massive migrating phenomena and insecurity in the area' (IMELS and LCBC 2018, 1), reflecting Italy's particular concerns with migration across the Mediterranean. As a bilateral donor representative observes, for European states 'the main interest is stability in the region' and 'the climate aspect is a tool, a way in,' not the main focus of donor interventions (interview, June 2019).

These concerns have, secondly, overlain longstanding European and in particular French interests in the region. France has maintained a strong presence in its former colonies in the west African Sahel since the 1960s, for military, political and economic reasons (Powell 2017; Rieker 2017). Thus Chad is the self-described 'centre of gravity' for France's military deployment in Africa (CDNFA 2014, 50) and home to France's largest international military deployment, Opération Barkhane. France has supported successive regimes in the country, including the previous Déby regime, despite their records of human rights violations and political repression (Debos 2019; Tubiana and Debos 2016).<sup>4</sup> France is reliant on Niger's uranium for its civilian and

---

<sup>4</sup> Emmanuel Macron announced in June 2021 a 'profound transformation' to France's military presence in the Sahel, involving a 'drawdown' of Opération Barkhane but the continued presence of 'several hundred forces' (Al Jazeera 2021).

military nuclear industries, and has oil interests in Chad, Cameroon, Niger and Nigeria, including possible future production from Lake Chad (Omenma 2020). These interests are pertinent in two respects. They have underpinned France's strategic highlighting of Lake Chad within debates on climate change and climate security, illustrated by the strong focus on the region at the 2015 Paris climate conference (for a detailed examination of the 'climatization of the French military', with reference to the 2015 climate conference and interests in the Sahel, see Estève 2020). And its geopolitical, security and economic interests in the region have meant that French officials in particular – and other European states too – have reproduced climate security claims to manage strategic relations with regional leaders. As a researcher from the region explained, France's support for the 'shrinking lake' narrative at COP21 was part of an effort to maintain delicate post-colonial relationships, particularly in Chad: 'If France wants to continue having a presence in the region, they need to maintain good relations' (interview, February 2020).

For France, the climate security narrative has also been a way to reframe its relations with Chad, Niger and other ex-colonies. French policy in Africa has long been criticised as paternalistic, elite-focused and prioritising French economic and political interest (Mbembe and Sarr 2017; Rieker 2017). In response, France has sought to re-present its engagement through the language of 'partnership', 'multilateralism', 'collective interests' and 'shared concerns'. 'The time of *Françafrique* is over,' said François Hollande in 2012; 'there is partnership between France and Africa ... based on respect, clarity and solidarity' (AFP 2012). At COP21 Hollande directly connected climate change to France's new approach to Africa: France 'wants to be fully engaged at the side of the African continent ... Africa is suffering the consequences of global warming, but is not responsible for the emission of greenhouse gases ... there is an

ecological debt that the world must settle with regard to the African continent’ (Le Parisien 2015a), he said, noting that ‘Africa will be hit by desertification ... Lake Chad will dry up, wars will occur and cause the displacement of populations’ (Le Parisien 2015b). Similarly, in 2017, President Emmanuel Macron proclaimed in Burkina Faso, ‘I did not come here ... to tell you what France’s policy for Africa should be ... Because there no longer is a French policy for Africa!’ before identifying climate change as one focus of this new partnership – ‘I would like France ... to be Africa’s special partner in the field of climate change adaptation’ – citing Lake Chad as an example of the ‘ravaging’ effects of climate change (Macron 2017). For France in particular, but other European states too, emphasising the links between climate change and security has been a means of signalling commitment to a new form of geopolitics.

Finally, Lake Chad has become such a focus of climate security debates in large part because it is not, currently, a region of great power rivalry. By contrast with Syria, Iraq or Afghanistan, for example, it was somewhere that the UNSC could discuss, visit and report on, without facing the threat of Russian vetoes. As a think tank researcher observed, ‘It was just the most politically expedient. It was interesting enough from a foreign policy perspective but not too hot and not too politically sensitive’ (interview, June 2019).

### ***Colonial legacies***

Last but not least, the Lake Chad climate security narrative builds upon a long history of colonial misrepresentations of both African environments generally, and Lake Chad specifically. Colonial representations of African ecology almost always followed racialised Malthusian premises – identifying soils, forests and so on as, if not pristine, then ‘declining’ and ‘degraded’ by ‘overpopulation’ and poor local stewardship; and identifying conflict and violence as natural, near automatic, consequences of these

degraded environments (e.g. Blaikie 1985; Davis 2016; Leach and Mearns 1996; Mustapha 2003). Subsequently inherited and reproduced by both Western development officials and post-colonial elites, similar premises continue to be widespread, including within expert and policy discourse on the impacts of climate change (Ballouche and Taïbi 2013; Hartmann 2014; Verhoeven 2014). Reflecting this, ‘the myth’ of the ‘disappearance of Lake Chad’, and of this as causing local crisis and collapse (Magrin 2016; Pérouse de Montclos 2018) goes right back to the ‘scramble for Africa’. Winston Churchill’s passing comment in his account of Britain’s reconquest of the Sudan is typical, evidently reflecting European received wisdom on the subject: ‘Altogether France has enough to occupy her in Central Africa ... and even when the long task is finished, the conquered regions are not likely to be of great value,’ he wrote; ‘Only one important river, the Shari, flows through them, and never reaches the sea: and even Lake Chad, into which the Shari flows, appears to be leaking through some subterranean exit, and is rapidly changing from a lake into a mighty swamp (1899, 319-20). Contemporary climate security narratives essentially reproduce – and attain much of their power from – this long-established, Eurocentric trope of Lake Chad as in terminal decline. While this may represent a less ‘direct’ reason than the three preceding sets of interests and agendas, these colonial legacies are integral to understanding the origins and persistence, and the deeply rooted logics, of the Lake Chad climate security narrative.

## **Conclusions**

For a narrative that is not supported by scientific evidence, the Lake Chad climate security narrative – attributing the ‘shrinking’ or ‘disappearing’ lake to climate change and identifying this as a cause of the ongoing security crisis – is extraordinarily widely accepted and resilient. This article has sought to examine the reasons for this – to

explore the reasons why such a web of unsubstantiated claims is nonetheless so regularly advanced by, and is so attractive to, so many. The answer to this puzzle is, we suggest, complex and multi-layered. The Lake Chad narrative, we find, was initially constructed through mutually reinforcing processes of visualisation, climatisation and securitisation. It was subsequently confirmed through simple repetition plus ‘validation’ by key local and international spokespeople and witnesses. It has been sustained through widespread evasion and intentional ignorance. And this has reflected, and been made possible by, a confluence of interests and power relations: international interests in strengthening the case for climate mitigation; regional elite interests in blaming climate change and attracting climate financing; European geopolitical agendas in the Sahel; and colonial narrative legacies. This complex combination of on the one hand a series of representational-cum-political practices, and on the other diverse political interests, hierarchies and agendas, has, we argue, underpinned the rise and reproduction of the Lake Chad climate security narrative.

Theoretically and more broadly, the above illustrates, and hopefully suggests the value of, a rather different approach to analysing security discourse from that which currently predominates within critical security studies. Instead of privileging acts of securitisation, this approach attends to the multiplicity of practices through which security ideas are generated and reproduced – and simultaneously examines, in materialist fashion, the interests, hierarchies and historical legacies underpinning them. Beyond this, the above also shows that climate security narratives cannot be reduced to one practice or cause alone. What we encounter in the Lake Chad narrative is a complex post-colonial security politics in which liberal, environmental and authoritarian agendas, colonial legacies and the post-colonial present, are all contradictorily aligned. Here, anti-colonialism meets environmental concern to insist that Lake Chad’s

‘disappearance’ and the ensuing regional crisis are evidence of the despoilation of Africa by the Western carbon emissions. Conversely, those who question this narrative can be denounced as latter-day colonialists, joined at the hip to those who ‘assassinated Felix Moumie [Cameroonian nationalist leader], opposed Patrice Lumumba and orchestrated the killing of Gaddafi’ (Campbell 2018). Never mind that the disappearing Lake is both a myth, and a colonial invention: such are the paradoxes of contemporary climate security discourse.

These complexities aside, this analysis clearly points to problems in the world of climate security policy, and climate impact and adaptation policy more broadly. For whatever the advantages of the Lake Chad narrative – how it may have helped certain actors to secure mitigation commitments or resource flows, for instance – it cannot be sensible or right that so many have come together around a narrative which is so out of line with existing scientific evidence. Doing so is almost an invitation to climate denialism. It is a recipe for maladaptation and misspent climate finance. And it is contrary to the principles of ‘evidence-based policy’. Of course, science-policy interactions are always complex, contested and far from unidirectional, including on climate change; we neither suppose that the problems identified here could be rectified just by ‘following the science’, nor discount the concerns about current and future environmental change which underpin some climate security narratives. But some change is evidently needed in how the climate security community engages with scientific evidence – whether this be increased caution on the part of think tanks and policymakers, or the establishment of review processes independent of political interests – as well as in the positions taken by progressive actors and movements. There is now extensive evidence of climate impact and adaptation narratives being mobilised to promote large-scale development interventions which are in turn contributing to

displacement and violence (e.g. Dunlap 2018; Eriksen et al. 2021; Paprocki 2018), as well as evidence that some climate impact discourse, for instance on ‘climate migration’ and ‘climate refugees’ (Bettini 2013; Hartmann 2010), is politically troubling and indeed regressive. Absent changes in how both policy and civil society actors engage with such complexities, climate security discourse will continue to be not just ill-informed and super-politicised, but an obstacle to the goals of sound climate adaptation, rapid decarbonisation and climate justice.



## References

- adelphi. 2017. G7 Working Group: What will come next for G7 action on climate and fragility. Accessed May 26, 2020. <https://www.adelphi.de/en/news/g7-working-group-what-will-come-next-g7-action-climate-and-fragility>
- adelphi. No date (n.d.). Transnational conflict and cooperation in the Lake Chad Basin. Accessed April 21, 2021. <https://climate-diplomacy.org/case-studies/transnational-conflict-and-cooperation-lake-chad-basin>
- Adenike, O. 2020. Why Lake Chad shrinks. *Medium*, January 5. Accessed June 30, 2020. [https://medium.com/@the\\_ecofeminist/why-lake-chad-shrinks-a7fde581cac7](https://medium.com/@the_ecofeminist/why-lake-chad-shrinks-a7fde581cac7)
- Adeniran, A. B. and K. A. Daniell. 2020. Transaqua: Power, political change and the transnational politics of a water megaproject. *International Journal of Water Resources Development*. doi:10.1080/07900627.2020.1747408
- Adeyeri, O. E., P. Laux, A. E. Lawin, and J. Arnault. 2020. Assessing the impact of human activities and rainfall variability on the river discharge of Komadugu-Yobe Basin. *Environmental Earth Sciences* 79 (6):1–12.
- Adeyeri, O. E., A. E. Lawin, P. Laux, K. A. Ishola, and S. O. Ige. 2019. Analysis of climate extreme indices over the Komadugu-Yobe basin, Lake Chad region. *Weather and Climate Extremes* 23:100194.
- Adger, W. N., J. M. Pulhin, J. Barnett, G. D. Dabelko, G. K. Hovelsrud, M. Levy, Ú. Oswald Spring, and C. H. Voge. 2014. Human security. In *Climate change 2014: Impacts, adaptation, and vulnerability. Part A: Global and sectoral aspects*, ed. C. B. Field et al., 755–91. Working Group II Contribution to the Fifth Assessment Report of the IPCC. New York: Cambridge University Press.
- AFP (Agence France Presse). 2012. Hollande: ‘Le temps de la Françafrique est révolu’. *Le Point [AFP]*, October 12. Accessed June 25, 2020. [https://www.lepoint.fr/monde/hollande-le-temps-de-la-francafrique-est-revolu-12-10-2012-1516379\\_24.php](https://www.lepoint.fr/monde/hollande-le-temps-de-la-francafrique-est-revolu-12-10-2012-1516379_24.php)
- AFP (Agence France Presse). 2018. Assèchement et sous-développement du lac Tchad: Le coeur de l’insurrection de Boko Haram. *La Libre Afrique [AFP]*, May 11. Accessed May 26, 2020. <https://afrique.lalibre.be/18952/assechement-et-sous-developpement-du-lac-tchad-le-coeur-de-linsurrection-de-boko-haram/>

- Al Jazeera. 2021. Macron: Barkhane mission ending, French presence to stay in Sahel. *Al Jazeera*, June 10. Accessed June 13, 2021.  
<https://www.aljazeera.com/news/2021/6/10/sahel-macron-announces-end-operation-barkhane-it-exists>
- Anugwom, E. E. 2019. *The Boko Haram insurgency in Nigeria: Perspectives from within*. Palgrave Macmillan.
- Archibong, B. 2018. Historical origins of persistent inequality in Nigeria. *Oxford Development Studies* 46 (3):325–47.
- Arsenault, C. 2012. L'eau de plus en plus source de tensions dans le monde. *Radio France Internationale*, March 14. Accessed July 20, 2020.  
<https://www.rfi.fr/fr/general/20120314-eau-source-tensions-climat-monde-france-israel-palestine-chine-pollution-tchad>
- Asah, S. T. 2015. Transboundary hydro-politics and climate change rhetoric: An emerging hydro-security complex in the Lake Chad basin. *WIREs Water* 2 (1):37–45.
- Associated Press. 2014. Nigeria's chief human rights advocate welcomes progress in holding security forces accountable. *Associated Press*, April 9.
- Bailey, R. and G. Green. 2016. Should Europe be concerned about climate refugees? *Newsweek*, May 18. Accessed May 26, 2020.  
<https://www.newsweek.com/should-europe-be-concerned-about-climate-refugees-460661>
- Ballouche, A. and A. N. Taïbi. 2013. Le 'dessèchement' de l'Afrique sahélienne: Un leitmotiv du discours d'expert revisité. *Autrepart* 2 (65):47–66.
- Benjaminsen, T. A., K. Alinon, H. Buhaug, and J. T. Buseth. 2012. Does climate change drive land-use conflicts in the Sahel? *Journal of Peace Research* 49 (1):97–111.
- Bertoncin, M. and A. Pase. 2017. Interpreting mega-development projects as territorial traps: The case of irrigation schemes on the shores of Lake Chad (Borno State, Nigeria). *Geographica Helvetica* 72 (2):243–54.
- Bettini, G. 2013. Climate barbarians at the gate? A critique of apocalyptic narratives on 'climate refugees'. *Geoforum* 45:63–72.
- Bila, M. (2019) Remarks at the Planetary Security Conference session on 'Strengthening UN capacity to address climate-related security risks'. The Hague, February 19.

- Biya, P. 2017. Statement to the 72<sup>nd</sup> session of the UN General Assembly. New York, September 22. Accessed June 10, 2020.  
[https://gadebate.un.org/sites/default/files/gastatements/72/cm\\_en.pdf](https://gadebate.un.org/sites/default/files/gastatements/72/cm_en.pdf)
- Blaikie, P. 1985. *The political economy of soil erosion in developing countries*. London: Longman.
- Bøås, M. 2020. EU migration management in the Sahel: Unintended consequences on the ground in Niger? *Third World Quarterly*.  
doi:10.1080/01436597.2020.1784002
- Bonnecase, V. and J. Brachet. 2013. Les ‘crises sahéliennes’ entre perceptions locales et gestions internationales. *Politique Africaine* 2 (130):5–22.
- Born, C., K. Eklöw, and M. Mobjörk. 2019. Advancing United Nations responses to climate-related security risks. SIPRI, Solna.
- Burke, S. 2019. Remarks at the Planetary Security Conference session on ‘Advancing climate security: Global views on US strategies’. The Hague, February 19.
- The Cable. 2021. Buhari: Youth recruitment by insurgents caused by climate change impact on Lake Chad. *The Cable*, October 26. Accessed October 26, 2021.  
<https://www.thecable.ng/buhari-youth-recruitment-by-insurgents-caused-by-climate-change-impact-on-lake-chad>
- Campbell, H. G. 2018. Chad: The drying up of the lake, seeing global warming up close. *Pambazuka News*, February 16. Accessed August 17, 2020. <https://www.pambazuka.org/human-security/chad-drying-lake-seeing-global-warming-close>
- Carr, M. 2010. Slouching towards dystopia: The new military futurism. *Race and Class* 51 (3):13–32.
- Churchill, W. S. 1899. *The river war: An historical account of the reconquest of the Soudan, Vol. II*. London: Longmans, Green, and Co.
- CIMA International. 2011. Feasibility of the water transfer project from the Ubangi to Lake Chad. CIMA International, Laval.
- Climate Diplomacy. 2019. Conflict and insurgency in Lake Chad: Interview with Mohammed Bila. Accessed June 15, 2020. <https://www.climate-diplomacy.org/videos/conflict-and-insurgency-lake-chad-interview-mohammed-bila>
- Coe, M. T. and J. A. Foley. 2001. Human and natural impacts on the water resources of the Lake Chad basin. *Journal of Geophysical Research* 106 (4):3349–56.

- CDNFA (Commission de la Défense Nationale et des Forces Armées). 2014. L'Évolution du dispositif militaire français en Afrique et le suivi des opérations en cours. Assemblée Nationale, Paris.
- Comolli, V. 2015. *Boko Haram: Nigeria's Islamist insurgency*. London: Hurst and Company.
- Daily Independent. 2014. Jonathan orders probe into Kano blast, meets service chiefs. *Daily Independent*, May 20.
- Darby, M. 2015. Global warming raises tensions in Boko Haram region. *Climate Home News*, January 16. Accessed May 26, 2020. <https://www.climatechangenews.com/2015/01/16/global-warming-raises-tensions-in-boko-haram-region/>
- Davis, D. K. 2016. *The arid lands: History, power, knowledge*. Cambridge, MA: MIT Press.
- Debos, M. 2019. Que fait l'armée française au Tchad? *Libération*, February 8. Accessed May 26, 2020. [https://www.liberation.fr/debats/2019/02/08/que-fait-l-armee-francaise-au-tchad\\_1708150](https://www.liberation.fr/debats/2019/02/08/que-fait-l-armee-francaise-au-tchad_1708150)
- Diasso, A. 2018. Projet Transaqua: La RDC s'oppose au transfert de la rivière Ubangi vers le lac Tchad. *Agence d'Information d'Afrique Centrale*, April 5. Accessed June 10, 2020. <http://www.adiac-congo.com/content/projet-transaqua-la-rdc-soppose-au-transfert-de-la-riviere-ubangi-vers-le-lac-tchad-81644>
- Dodge, M. and C. Perkins. 2009. The view from nowhere? Spatial politics and cultural significance of high-resolution satellite imagery. *Geoforum* 40 (4):497–560.
- Dong, B. and R. Sutton. 2015. Dominant role of greenhouse-gas forcing in the recovery of Sahel rainfall. *Nature Climate Change* 5 (8):757–60.
- Doyle, J. 2007. Picturing the clima(c)tic: Greenpeace and the representational politics of climate change communication. *Science as Culture* 16 (2):129–50.
- Dunlap, A. 2018. The 'solution' is now the 'problem:' Wind energy, colonisation and the 'genocide-ecocide nexus' in the Isthmus of Tehuantepec, Oaxaca. *The International Journal of Human Rights* 22 (4):550–73.
- Egbas, J. 2018. Full text of what president said during Lake Chad conference. *Pulse NG*, February 28. Accessed May 26, 2020. <https://www.pulse.ng/news/local/buhari-full-text-of-what-president-said-during-lake-chad-conference/4hm9tgx>

- Eichelberger, E. 2014. How environmental disaster is making Boko Haram violence worse. *Mother Jones*, June 10. Accessed May 26, 2020.  
<https://www.motherjones.com/environment/2014/06/nigeria-environment-climate-change-boko-haram/>
- Ekott, I. 2013. Bill Clinton counters Jonathan, insists poverty behind Boko Haram, Ansaru insurgency. *Premium Times*, February 27. Accessed 16 July 2020.  
<https://www.premiumtimesng.com/news/122116-bill-clinton-counters-jonathan-insists-poverty-behind-boko-haram-ansaru-insurgency.html>
- Eriksen, S., E. L. F. Schipper, M. Scoville-Simonds, K. Vincent, H. N. Adam, N. Brooks, B. Harding, D. Khatri, L. Lenaerts, D. Liverman, et al. 2021. Adaptation interventions and their effect on vulnerability in developing countries: Help, hindrance or irrelevance? *World Development* 141:105383.
- Estève, A. 2020. Preparing the French military to a warming world: climatization through riskification. *International Politics*. doi:10.1057/s41311-020-00248-2
- European Commission. 2020. EU Emergency Trust Fund for Africa. Accessed May 27, 2020. [https://ec.europa.eu/trustfundforafrica/index\\_en](https://ec.europa.eu/trustfundforafrica/index_en)
- Fabius, L. 2015. Speech at the 21<sup>st</sup> UN Climate Change Conference. Paris, November 20. Accessed May 26, 2020.  
[https://unfccc.int/files/meetings/paris\\_nov\\_2015/application/pdf/cop21cmp11\\_statement\\_fabius.pdf](https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/cop21cmp11_statement_fabius.pdf)
- FAO (Food and Agriculture Organization). 2009. Lake Chad, a system under threat. Accessed June 5, 2020. <http://www.fao.org/land-water/news-archive/news-detail/en/c/267309/#:~:text=The%20drying%20Dup%20of%20the,and%20conflicts%20between%20the%20populations>
- Federal Foreign Office. 2019. Federal Foreign Office climate diplomacy report. German Federal Foreign Office, Berlin.
- Foucault, M. 1972. *The archaeology of knowledge*. London: Tavistock.
- Foucault, M. 1980. In *Power/knowledge: Selected interviews and other writings, 1972-1977*, ed. C. Gordon. Brighton: Harvester.
- Fougou, H. K. and M. Abdourahamani. 2018. Une oasis à la porte du Sahara: Le lac Tchad et ses systèmes. *Geo-Eco-Trop* 42 (2):275–83.
- Galeazzi, G., A. Medinilla, T. M. Ebiede, and S. Desmidt. 2017. Understanding the Lake Chad Basin Commission: Water and security at inter-regional cross-roads. European Centre for Development Policy Management, Maastricht.

- Gao, H., T. J. Bohn, E. Podest, K. C. McDonald, and D. P. Lettenmaier. 2011. On the causes of the shrinking of Lake Chad. *Environmental Research Letters* 6 (3):034021.
- GIZ. 2015. Joint environmental audit on the drying up of Lake Chad. Pan-African Financial Governance Programme, GIZ, Pretoria.
- GIZ and LCBC (Lake Chad Basic Commission). 2013. Report on the State of the Lake Chad Basin ecosystem. GIZ, Bonn.
- GIZ and LCBC. 2015. Adaptation au changement climatique du bassin du Lac Tchad: Etude sur le changement climatique. GIZ, Bonn.
- GIZ and LCBC. 2018. Analyse diagnostique transfrontalière du bassin du Lac Tchad. GIZ, Bonn.
- Gleditsch, N. P. and R. Nordås. 2014. Conflicting messages? The IPCC on conflict and human security. *Political Geography* 43:82–90.
- Gleick, P. 2014. Water, drought, climate change, and conflict in Syria. *Weather, Climate and Society* 6 (3):331–40.
- Gore, A. 2006. *An inconvenient truth*. New York: Rodale.
- Goudoum, P. D. and J. Lemoalle. 2014. La crue du lac Tchad en 2013 vue par le satellite Landsat 8. *Revue Scientifique du Tchad* 1 (4):40–44.
- Government of Nigeria and LCBC. 2018a. International conference on Lake Chad: Concept note. Accessed May 26, 2020. <https://waterresources.gov.ng/lake-chad-conf/>
- Government of Nigeria and LCBC. 2018b. Roadmap on Saving the Lake Chad. Accessed May 26, 2020. <https://waterresources.gov.ng/lake-chad-conf/>
- Hartmann, B. 2010. Rethinking climate refugees and climate conflict: Rhetoric, reality and the politics of policy discourse. *Journal of International Development* 22 (2):233–46.
- Hartmann, B. 2014. Converging on disaster: Climate security and the Malthusian anticipatory regime for Africa. *Geopolitics* 19 (4):757–83.
- Henderson M (2001) Lake Chad will ‘shrink to a puddle’. *The Times* 5 March
- Hoerling, M., J. Hurrell, J. Eischeid, and A. Phillips. 2006. Detection and attribution of twentieth-century northern and southern African rainfall change. *Journal of Climate* 19 (16):3989–4008.
- Hoffmann, L. K. 2014. Who speaks for the North? Politics and influence in northern Nigeria. Chatham House, London.

- Hollande, F. 2016. Speech at the 2<sup>nd</sup> Regional Summit on Security. Abuja, May 14. Accessed June 6, 2020. <https://www.vie-publique.fr/discours/199060-declaration-de-m-francois-hollande-president-de-la-republique-sur-la>
- ICG (International Crisis Group). 2020a. The central Sahel: Scene of new climate wars? ICG, Brussels.
- ICG. 2020b. What role for the multinational joint task force in fighting Boko Haram? ICG, Brussels.
- Ighobor, K. 2019. Address development issues in the Lake Chad Basin. *Africa Renewal* December 2019-March 2020:16.
- IMELS (Ministry for the Environment, Land and Sea of the Italian Republic) and LCBC. 2018. Memorandum of understanding on cooperation in the field of climate change vulnerability, risk assessment, adaptation and mitigation. IMELS and LCBC, Rome and N'Djaména.
- IRIN News. 2003. Saving Lake Chad. *IRIN News*, March 21. Accessed June 10, 2020. <https://www.thenewhumanitarian.org/feature/2003/03/21/saving-lake-chad>
- Kelley, C. P., S. Mohtadi, M. A. Cane, R. Seager, and Y. Kushnir. 2015. Climate change in the fertile crescent and implications of the recent Syrian drought. *Proceedings of the National Academy of Sciences* 112 (11):3241–46.
- Kolawole, A. 1988. Cultivation of the floor of Lake Chad: A response to environmental hazard in eastern Borno, Nigeria. *The Geographical Journal* 154 (2):243–50.
- Kolawole, A. 1991. Water resources development projects in Nigeria: Farmers' responses. *International Journal of Water Resources Development* 7(2): 124–32.
- Krampe, F., R. Scassa, and G. Mitrotta. 2018. Responses to climate-related security risks. SIPRI, Solna.
- Krinninger, T. 2015. Lake Chad: Climate change fosters terrorism. *Deutsche Welle*, December 7. Accessed June 6, 2020. <https://www.dw.com/en/lake-chad-climate-change-fosters-terrorism/a-18899499>
- Ladbury, S., H. Allamin, C. Nagarajan, P. Francis, and U. O. Ukiwo. 2016. Jihadi groups and state-building: The case of Boko Haram in Nigeria. *International Journal of Security and Development* 5 (1):1–19.
- LIS (Lake Chad Information System). 2020. Water: Lake Chad. Accessed June 20, 2020. <https://lis.cbilt.org/lis/water/surface/sub/lake-chad>
- Lavallée, C. and J. C. Völkel. 2015. Military in Mali: The EU's action against instability in the Sahel region. *European Foreign Affairs Review* 20 (2):159–86.



- LCBC (Lake Chad Basin Commission). 2011. Water charter of the Lake Chad Basin. LCBC, N'Djaména.
- LCBC. 2014. Table ronde des bailleurs de fonds pour le financement du plan quinquennal d'investissement 2013-2017: Cahier de participant. LCBC, N'Djaména.
- LCBC. 2015. Lake Chad development and climate resilience action plan. LCBC, N'Djaména.
- LCBC. 2017. Après la signature du memorandum d'entente sur le transfert des eaux, PowerChina se rend à N'Djaména. Accessed May 26, 2020.  
<http://cblt.org/fr/actualites/apres-la-signature-du-memorandum-dentente-sur-le-transfert-des-eaux-powerchina-se-rend>
- LCBC. 2018. Signing of MoU between LCBC and Italy. Accessed May 26, 2020.  
<http://www.cblt.org/en/news/signing-mou-between-lcbc-and-italy>
- LCBC. 2019. Technical bulletin on the hydrological situation in the Lake Chad Basin. LCBC, N'Djaména.
- LCBC and AU (African Union). 2018. Regional strategy for the stabilization, recovery and resilience of the Boko Haram-affected areas of the Lake Chad Basin region. LCBC, N'Djaména.
- LCBC and GIZ. 2017. Rapport sur l'état de l'écosystème du bassin du Lac Tchad. GIZ, Bonn.
- Leach, M. and R. Mearns, eds. 1996. *The lie of the land: Challenging received wisdom on the African environment*. Woodbridge: James Currey and International African Institute.
- Leblanc, M., J. Lemoalle, J.-C. Bader, S. Tweed, and L. Mofor. 2011. Thermal remote sensing of water under flooded vegetation: New observations of inundation patterns for the 'small' Lake Chad. *Journal of Hydrology* 404 (1-2):87–98.
- Lemoalle, J. 2014. Le fonctionnement hydrologique du lac Tchad. In *Le développement du Lac Tchad*, eds. J. Lemoalle and G. Magrin, 16–58. Marseille: IRD Éditions.
- Lemoalle, J. and G. Magrin, eds. 2014. *Le développement du Lac Tchad: Situation actuelle et futurs possibles*. Marseille: IRD Éditions.
- Le Parisien. 2015a. COP21: Paris promet 2 Mds d'euros à l'Afrique pour les énergies renouvelables. *Le Parisien*, December 1. Accessed June 28, 2020.  
<https://www.leparisien.fr/environnement/cop21-paris-promet-2-milliards-d-euros-a-l-afrique-pour-les-energies-renouvelables-01-12-2015-5329649.php>



- Le Parisien. 2015b. François Hollande: ‘Sauver la planète, ça n’a pas de prix’. *Le Parisien*, September 25. Accessed June 28, 2020. <https://www.leparisien.fr/environnement/francois-hollande-sauver-la-planete-ca-n-a-pas-de-prix-25-09-2015-5125965.php>
- Macron, E. 2017. Speech at the University of Ouagadougou. Ouagadougou, November 28. Accessed June 25, 2020. <https://www.elysee.fr/emmanuel-macron/2017/11/28/emmanuel-macrons-speech-at-the-university-of-ouagadougou.en>
- Macron, E. 2021. Déclaration de M. Emmanuel Macron, président de la République, sur la question climatique et les relations internationales, à Paris le 23 février 2021. Accessed October 26, 2021. <https://www.vie-publique.fr/discours/278728-emmanuel-macron-23022021-climat>
- Magrin, G. 2014. Les défis pour le lac Tchad de la gouvernance des ressources en eau à l’échelle du bassin. In *Le développement du Lac Tchad*, eds. J. Lemoalle and G. Magrin, 502–38. Marseille: IRD Éditions.
- Magrin, G. 2016. The disappearance of Lake Chad: History of a myth. *Journal of Political Ecology* 23 (1):204–22.
- Magrin, G. and M.-A. Pérouse de Montclos, eds. 2018. *Crisis and development: The Lake Chad region and Boko Haram*. Paris: Agence Française de Développement.
- Magrin, G. and C. Raimond. 2018. La région du Lac Tchad face à la crise Boko Haram: Interdépendances et vulnérabilités d’une charnière sahélienne. *Géographies* 95 (2):203–21.
- Mahmood, R. and S. Jia. 2019. Assessment of hydro-climatic trends and causes of dramatically declining stream flow to Lake Chad, Africa, using a hydrological approach. *Science of the Total Environment* 675:122–40.
- Mahmood, R., S. Jia, and W. Zhu. 2019. Analysis of climate variability, trends, and prediction in the most active parts of the Lake Chad basin, Africa. *Scientific Reports* 9 (1):1–18.
- Mach, K., C. M. Kraan, W. N. Adger, H. Buhaug, M. Burke, J. D. Fearon, C. B. Field, C. S. Hendrix, J. F. Maystadt, J. O’Loughlin, P. Roessler. 2019. Climate as a risk factor for armed conflict. *Nature* 571:193–97.
- Mamdani, M. 2009. *Saviors and survivors: Darfur, politics and the war on terror*. London: Verso.

- Manzo, K. 2010. Imaging vulnerability: The iconography of climate change *Area* 42 (1):96–107.
- Mbembe, A. and F. Sarr. 2017. Africains, il n’y a rien à attendre de la France que nous ne puissions nous offrir à nous-mêmes! *Le Monde*, November 27.
- McDonald, M. 2013. Discourses of climate security. *Political Geography* 33:42–51.
- Middendorp, T. and R. Bergema. 2019. How climate change fuels violent extremism. Accessed May 26, 2020. <https://www.clingendael.org/publication/how-climate-change-fuels-violent-extremism#>
- Mills, C. W. 1997. *The racial contract*. Ithaca: Cornell University Press.
- Ministry for Foreign Affairs. 2019. Sweden on the UN Security Council 2017-2018. Government Offices of Sweden, Stockholm.
- Ministry of Foreign Affairs. 2018. Climate change profile: West African Sahel. Ministry of Foreign Affairs of the Netherlands, The Hague.
- Mubaraq, K. 2018. Boko Haram fuelled by shrunken Lake Chad. *Inside Business*, August 28. Accessed May 26, 2020. <https://insidebusiness.ng/48229/boko-haram-fuelled-by-shrunken-lake-chad-amina-mohammed/>
- Musa, I. K. 2008. Saving Lake Chad. LCBC, N’Djaména.
- Mustapha, A. R. 2003. Colonialism and environmental perception in northern Nigeria. *Oxford Development Studies* 31 (4):405–25.
- Mustapha, A. R. 2014. Understanding Boko Haram. In *Sects and social disorder: Muslim identities and conflict in Northern Nigeria*, ed. A. R. Mustapha, 147–98. Woodbridge: James Currey.
- Nagarajan, C., B. Pohl, L. Rüttinger, F. Sylvestre, J. Vivekananda, M. Wall, and S. Wolfmaier. 2018. Climate-fragility profile: Lake Chad Basin. adelphi, Berlin.
- NASA Earth Observatory. 2001. Africa’s disappearing Lake Chad. Accessed May 26, 2020. <https://earthobservatory.nasa.gov/images/1240/africas-disappearing-lake-chad>
- The Nation. 2019. Shrinking Lake Chad, major climate change disasters in Africa says UN. *The Nation*, May 7. Accessed May 26, 2020. <https://thenationonlineng.net/shrinking-lake-chad-major-climate-change-disasters-in-africa-says-un/>
- Ndukong, K. H. 2017. Chinese, Italian firms reach deal to refill fast-shrinking Lake Chad. *People’s Daily Online*, August 21. Accessed May 26, 2020. <http://en.people.cn/n3/2017/0821/c90000-9258249.html>

- Nett, K. and L. Rüttinger. 2016. Insurgency, terrorism and organised crime in a warming climate. adelphi, Berlin.
- Nicholson, S. E. 2013. The West African Sahel: A review of recent studies on the rainfall regime and its interannual variability. *ISRN Meteorology* 453521
- Nour, A. M., C. Vallet-Coulomb, J. Gonçalves, F. Sylvestre and P. Deschamps. 2021. Rainfall-discharge relationship and water balance over the past 60 years within the Chari-Logone sub-basins, Lake Chad basin. *Journal of Hydrology: Regional Studies* 35:100824.
- Nwankpa, M. 2020. Understanding the local-global dichotomy and drivers of the Boko Haram insurgency. *African Conflict and Peacebuilding Review* 10 (2):43–64.
- Nzeshi, O. 2013. Nigeria: NSA blames insecurity on climate change. *This Day*, April 24.
- OCHA (UN Office for the Coordination of Humanitarian Affairs). 2021. Humanitarian needs overview: Nigeria. OCHA, New York.
- OCHA. 2021. Lake Chad Basin: crisis overview. Accessed April 21, 2021. <https://www.humanitarianresponse.info/en/operations/west-and-central-africa/lake-chad-basin-crisis-overview>
- Oels, A. 2012. From ‘securitization’ of climate change to ‘climatization’ of the security field. In *Climate change, human security and violent conflict*, eds. J Scheffran et al., 185–205. Heidelberg: Springer.
- Ogundele, B. 2021. 30 million people affected by shrinking Lake Chad – Buhari. *The Nation*, March 28. Accessed April 21, 2021. <https://thenationonlineng.net/30-million-people-affected-by-shrinking-lake-chad-buhari/>
- Okolie, A. C. 1995. Oil rents, international loans and agrarian policies in Nigeria, 1970-1992. *Review of African Political Economy* 22 (64):199–212.
- Okonkwo, C., B. Demoz, and S. Gebremariam. 2014. Characteristics of Lake Chad level variability and links to ENSO, precipitation, and river discharge. *The Scientific World Journal* 145893
- Okpara, U. T., L. C. Stringer, A. J. Dougill, and M. D. Bila. 2015. Conflicts about water in Lake Chad: Are environmental, vulnerability and security issues linked? *Progress in Development Studies* 15 (4):308–25.
- Okpara, U. T., L. C. Stringer, and A. J. Dougill. 2017. Using a novel climate-water conflict vulnerability index to capture double exposures in Lake Chad. *Regional Environmental Change* 17 (2):351–66.

- O'Malley, B. 2001. Space reveals mighty lake faces oblivion. *Courier Mail*, March 7.
- Omenma, J. T. 2020. Untold story of Boko Haram insurgency: The Lake Chad oil and gas connection. *Politics and Religion* 13:180–213.
- Oramah, C. P., O. E. Olsen, and K. A. Pettersen Gould (2021). Assessing the impact of the securitization narrative on climate change adaptation in Nigeria. *Environmental Politics*. doi: 10.1080/09644016.2021.1970456.
- Osuoka, I. and A. Haruna. 2019. Boiling over: global warming, hunger and violence in the Lake Chad Basin. Caritas, Montréal.
- Oyebande, L. 2001. Streamflow regime change and ecological response in the Lake Chad basin in Nigeria. *Hydro-Ecology* 266:101–12.
- Panthou, G., T. Lebel, T. Visschell, G. Quantin, Y. Sane, A. Ba, O. Ndiaye, A. Diongue-Niang, and M. Diopkane. 2018. Rainfall intensification in tropical semi-arid regions: The Sahelian case. *Environmental Research Letters* 13 (6):064013.
- Paprocki, P. 2018. Threatening dystopias: Development and adaptation regimes in Bangladesh. *Annals of the American Association of Geographers* 108 (4):955–73.
- Parmar, I. 2019. Transnational elite knowledge networks: Managing American hegemony in turbulent times. *Security Studies* 28 (3):532–64.
- Payne, J. 2015. Exclusive: Captured video appears to show foreign fighters in Nigeria's Boko Haram. *Reuters*, May 26.
- Peacebuilding Commission. 2019. Regional approaches to peacebuilding: the Sahel, Lake Chad Basin, and the Mano River Union – Chair's summary. UN Peacebuilding Commission, New York.
- Pérouse de Montclos, M.-A., ed. 2014. *Boko Haram: Islamism, politics, security and the state in Nigeria*. Leiden and Ibadan: African Studies Centre and IFRA.
- Pérouse de Montclos, M.-A. 2018. Lac Tchad et terrorisme: Anatomie d'une légende. *Jeune Afrique* 3014:27.
- Pham-Duc, B., F. Sylvestre, F. Papa, F. Frappart, C. Bouchez, and J. F. Crétaux. 2020. The Lake Chad hydrology under current climate change. *Scientific Reports* 10:5498.
- PM News. 2019. Climate change: What Buhari told the UN. *PM News*, September 23. Accessed May 26, 2020. <https://www.pmnewsnigeria.com/2019/09/23/climate-change-what-buhari-told-the-un/>

- Policelli, F., A. Hubbard, H. C. Jung, B. Zaitchik, and C. Ichoku. 2018. Lake Chad total surface water area as derived from land surface temperature and radar remote sensing data. *Remote Sensing* 10 (2):252–67.
- Powell, N. K. 2017. Battling instability? The recurring logic of French military interventions in Africa. *African Security* 10 (1):47–72.
- Prager, A. and S. Samson. 2019. The fight against Nigeria's northeast terrorism is also a battle against climate change. *Quartz*, October 18. Accessed June 6, 2020. <https://qz.com/africa/1730868/fighting-boko-haram-and-climate-change-in-nigeria/>
- Premium Times. 2017. Nigeria requires international support to reduce effects of climate change – Buhari. *Premium Times*, December 12. Accessed July 23, 2020. <https://www.premiumtimesng.com/news/more-news/252292-nigeria-requires-international-support-reduce-effects-climate-change-buhari.html>
- Rangé, C. and M. Abdourahamani. 2014. Le lac Tchad, un agrosystème cosmopolite centré sur l'innovation. *Les Cahiers d'Outre-Mer* 67 (265):43–66.
- Reeve, R. and Z. Pelter. 2014. From new frontier to new normal: Counter-terrorism operations in the Sahel-Sahara. Oxford Research Group, London.
- Rieker, P. 2017. *French foreign policy in a changing world: Practising grandeur*. Palgrave Macmillan.
- Robert, A. 2017. Chefs d'État africains et européens tentent de se mobiliser face à l'immigration. *EURACTIV*, August 28. Accessed June 25, 2020. <https://www.euractiv.fr/section/avenir-de-l-ue/news/chefs-detat-africains-et-europeens-tendent-de-se-mobiliser-face-a-limmigration/>
- Ross, W. 2018. Lake Chad: Can the vanishing lake be saved? *BBC*, March 31. Accessed May 26, 2020. <https://www.bbc.co.uk/news/world-africa-43500314>
- Rothe, D. 2017. Seeing like a satellite: Remote sensing and the ontological politics of environmental security. *Security Dialogue* 48 (4):334–53.
- Salehyan, I. 2008. From climate change to conflict? No consensus yet. *Journal of Peace Research* 45 (3):315–26.
- Sambo, A. 2017. La cohérence des coalitions interrégionales pour lutter contre le terrorisme en Afrique subsaharienne. *Africa Development* 42 (3):137–55.
- Sarch, M.-T. and C. Birkett. 2000. Fishing and farming at Lake Chad: Responses to lake-level fluctuations. *The Geographical Journal* 166 (2):156–72.

- Schwartz, P. and S. Randall. 2003. An abrupt climate change scenario and its implications for United States national security. California Institute of Technology, Pasadena.
- Selby, J. 2007. Engaging Foucault: Discourse, liberal governance and the limits of Foucauldian IR. *International Relations* 21 (3):324–45.
- Selby, J. 2014. Positivist climate conflict research: A critique. *Geopolitics* 19 (4):829–56.
- Selby, J. 2019. Climate change and the Syrian civil war, part II: The Jazira’s agrarian crisis. *Geoforum* 101:260–74.
- Selby, J. 2020. On blaming climate change for the Syrian civil war. *Middle East Report* 296.
- Selby, J., O. S. Dahi, C. Fröhlich, and M. Hulme. 2017a. Climate change and the Syrian civil war revisited. *Political Geography* 60:232–44.
- Selby, J., O. S. Dahi, C. Fröhlich, and M. Hulme. 2017b. Climate change and the Syrian civil war revisited: A rejoinder. *Political Geography* 60:253–55.
- Selby, J. and C. Hoffmann. 2014. Rethinking climate change, conflict and security. *Geopolitics* 19 (4):747–76.
- Sindico, F. 2007. Climate change: A security (council) issue? *Carbon and Climate Law Review* 1 (1):29–34.
- Smith, D. 2019. Remarks at the Planetary Security Conference session on ‘Strengthening UN capacity to address climate-related security risks’. The Hague, February 19.
- Smith, D., M. Mobjörk, F. Krampe, and K. Eklöv. 2019. Climate security: Making it #doable. Clingendael, The Hague.
- Smith, D. and J. Vivekananda. 2007. A climate of conflict: The links between climate change, peace and war. International Alert, London.
- Taylor, C. M., D. Belušić, F. Guichard, D. J. Parker, T. Vischel, O. Bock, P. P. Harris, S. Janicot, C. Klein, and G. Panthou. 2017. Frequency of extreme Sahelian storms tripled since 1982 in satellite observations. *Nature* 544 (7651):475–78.
- TchadInfos. 2015. COP 21: Finalisation d’un plan de développement du bassin du lac Tchad de près de 600 milliards FCFA. *TchadInfos*, November 10. Accessed May 26, 2020. <https://tchadinfos.com/tchad/cop-21-finalisation-dun-plan-de-developpement-du-bassin-du-lac-tchad-de-pres-de-600-milliards-fcfa/>

- Tellro Waï, N., B. Ngounou Ngatcha, G. Mahe, J. C Doumnang, F. Delclaux, N. Goundoul and P. Genthon. 2014. Influence des activités anthropiques sur le régime hydrologique du fleuve Logone de 1960 à 2000. In *Hydrology in a Changing World: Environmental and Human Dimensions*: Proceedings of FRIEND-Water 2014, 437–442. Montpellier.
- Theisen, O. M., N. P. Gleditsch, and H. Buhaug. 2013. Is climate change a driver of armed conflict? *Climatic Change* 117 (3):613–25.
- Trombetta, M. J. 2009. Environmental security and climate change: analysing the discourse. *Cambridge Review of International Affairs* 21 (4):585–602.
- Tubiana, J. and M. Debos. 2016. Déby's Chad: Political manipulation at home, military intervention abroad, challenging times ahead. United States Institute of Peace, Washington, DC.
- UNCCD (UN Convention to Combat Desertification). 2015. World leaders renew commitment to strengthen climate resilience through Africa's Great Green Wall. Accessed May 26, 2020. <https://www.unccd.int/news-events/world-leaders-renew-commitment-strengthen-climate-resilience-through-africas-great>
- UNEP (United Nations Environment Programme). 2002. Vital water graphics: An overview of the state of the world's fresh and marine waters. UNEP, Nairobi.
- UNEP. 2004. Analyzing environmental trends using satellite data. UNEP, Nairobi.
- UNEP. 2006. Africa's lakes: Atlas of our changing environment. UNEP, Nairobi.
- UNEP. 2009. Lake Chad: Almost gone. Accessed May 26, 2020. <https://www.grida.no/resources/5593>
- UNEP. 2011. Livelihood security: Climate change, migration and conflict in the Sahel. UNEP, Geneva.
- UNEP. 2018. The tale of a disappearing lake. Accessed May 26, 2020. <https://www.unenvironment.org/news-and-stories/story/tale-disappearing-lake>
- United Nations. 2016. Indigenous Mbororo woman to speak at Paris Agreement signing ceremony on 22 April. Accessed May 26, 2020. <https://www.un.org/sustainabledevelopment/blog/2016/04/indigenous-mbororo-woman-to-speak-at-paris-agreement-signing-ceremony-on-22-april/>
- UNSC (UN Security Council). 2016. Meeting report S/PV.7699. UNSC, New York.
- UNSC. 2017a. Meeting report S/PV.7894. UNSC, New York.
- UNSC. 2017b. Resolution 2349 (S/RES/2349). UNSC, New York.
- UNSC. 2017c. Meeting report S/PV.8144. UNSC, New York.



- UNSC. 2017d. Report of the Security Council mission to the Lake Chad Basin region (S/2017/403). UNSC, New York.
- UNSC. 2018a. Meeting report S/PV.8212. UNSC, New York.
- UNSC. 2018b. Meeting report S/PV.8307. UNSC, New York.
- UNSC. 2019. Meeting report S/PV.8451. UNSC, New York.
- UNSC. 2021. Letter dated 25 February 2021 from the President of the Security Council addressed to the Secretary-General and the Permanent Representatives of the members of the Security Council (S/2021/198). UNSC, New York.
- UNSG (UN Secretary General). 2007. Secretary-General's remarks to press during a visit to Lake Chad. Accessed May 26, 2020.  
<https://www.un.org/sg/en/content/sg/press-encounter/2007-09-07/secretary-generals-remarks-press-during-visit-lake-chad>
- UNSG. 2008. Addressing world economic forum, Secretary-General stresses importance of better water management, adapting to reality as sources shrink worldwide. Accessed May 26, 2020.  
<https://www.un.org/press/en/2008/sgsm11388.doc.htm>
- UNSG. 2011. First report of the Secretary-General on the activities of the United Nations Regional Office for Central Africa (S/2011/704). UNSG, New York.
- UNSG. 2018. Deputy Secretary-General's remarks to Group of Friends on Climate and Security. Accessed May 26, 2020.  
<https://www.un.org/sg/en/content/dsg/statement/2018-09-26/deputy-secretary-generals-remarks-group-friends-climate-and>
- UNSG. 2021. Deputy Secretary-General's remarks to the TED Countdown. Accessed October 26, 2021. <https://www.un.org/sg/en/node/260057>
- Usigbe, L. 2019. Drying Lake Chad Basin gives rise to crisis. *Africa Renewal* December 2019-March 2020:14–15.
- Vanguard. 2019. Let's form alliances across faiths, ethnicities to destroy Boko Haram, others – Osinbajo. *Vanguard*, July 8.
- Verhoeven, H. 2011. Climate change, conflict and development in Sudan: Global neo-Malthusian narratives and local power struggles. *Development and Change* 42 (3):679–707.
- Verhoeven, H. 2014. Gardens of Eden or hearts of darkness? The genealogy of discourses on environmental insecurity and climate wars in Africa. *Geopolitics* 19 (4):784–805.



- Vivekananda, J. and C. Born. 2018. Lake Chad region: Climate-related security risk assessment. Expert Working Group on Climate-Related Security Risks, Stockholm.
- Vivekananda, J., S. Fetzek, M. Mobjörk, A. Sawas, and S. Wolfmaier. 2017. Action on climate and security risks: Review of progress. Clingendael, The Hague.
- Vivekananda, J., M. Wall, F. Sylvestre, and C. Nagarajan. 2019. Shoring up stability: Addressing climate and fragility risks in the Lake Chad region. adelphi, Berlin.
- von Lucke, F., Z. Wellmann, and T. Diez. 2014. What's at stake in securitising climate change? Towards a differentiated approach. *Geopolitics* 19 (4):857–84.
- Wallström, M. 2017. Speech at a seminar on climate change and security. Accessed June 20, 2020. <https://www.government.se/speeches/2017/12/speech-at-seminar-on-climate-change-and-security/>
- Warner, J. and I. Boas. 2019. Securitization of climate change: How invoking global dangers for instrumental ends can backfire. *Environment and Planning C: Politics and Space* 37 (8):1471–88.
- Watts, M. J. 2018. Frontiers: Authority, precarity and insurgency at the edge of the state. *World Development* 101: 477–88.
- Wine, M. L. 2020. Climatization of environmental degradation: A widespread challenge to the integrity of earth science. *Hydrological Sciences Journal* 65 (6):867–83.
- World Bank. 2014. Restoring a disappearing giant: Lake Chad. Accessed May 26, 2020. <https://www.worldbank.org/en/news/feature/2014/03/27/restoring-a-disappearing-giant-lake-chad>
- World Bank. 2016. Investing in resilience and development in Lake Chad. Accessed June 20, 2020. <https://www.worldbank.org/en/news/feature/2016/02/11/investing-in-resilience-and-development-in-lake-chad>
- Zastrow, M. 2015. Climate change implicated in current Syrian conflict. *Nature*, March 2. Accessed May 26, 2020. [http://emiguel.econ.berkeley.edu/assets/miguel\\_media/395/Nature\\_News\\_Comment\\_Climate\\_change\\_implicated\\_in\\_current\\_Syrian\\_conflict\\_.pdf](http://emiguel.econ.berkeley.edu/assets/miguel_media/395/Nature_News_Comment_Climate_change_implicated_in_current_Syrian_conflict_.pdf)
- Zhu, W., S. Jia, U. Lall, Q. Cao, and R. Mahmood. 2019. Relative contribution of climate variability and human activities on the water loss of the Chari/Logone River discharge into Lake Chad. *Journal of Hydrology* 569:519–31.