



NUPI



Climate Security, Natural Resource Conflict, & Community Resilience in the Lake Chad Basin:

A Review of the Literature



A man with a weathered face and a goatee is seated in a wooden boat, rowing with a long wooden oar. He is wearing a light pink, loose-fitting robe and a red and white patterned turban. The background is a blurred riverbank with green vegetation. In the top right corner, there are two large, white, slanted rectangular shapes.

The worst affected areas include Adamawa, Borno and Yobe States of Nigeria, the Diffa region of Niger, Hadjer Lamis and the Lac Region in Chad, and the North and Far North Regions in Cameroon.

Introduction

Across the world, the devastating impact of climate change is becoming increasingly more apparent and intense. According to a recent United Nations report, “human-induced climate change is the largest, most pervasive threat to the natural environment and societies the world has ever experienced” (Fry, 2022, p.3). While no part of the world seems immune to the dangers posed by climate change, its manifestation in Africa is already exacerbating challenges of food and water scarcity, livelihood collapse¹, violent conflicts, and population displacement. The impact of climate change and ecological collapse can already be seen in some fragile and conflict zones on the continent. The Lake Chad region is one of the areas in Africa where manifestation and impact of climate change has been particularly acute.

The Lake Chad region is one of the most important agricultural heritage sites in the world, as the Lake Chad which straddles the territories of Chad, Cameroun, Niger and Nigeria, provides a lifeline to millions of people in the four riparian countries (Onuoha, 2010; Salkida, 2012; Usigbe, 2019). However, since the early 1970s, the lake has lost 90 percent of its original surface area to unsustainable water management and climate change (UNDP, 2017). The basin itself has shrunk from 25,000 square kilometres to 2,000 square kilometres (UNDP, 2017). Meanwhile, the population depending on the lake for their livelihoods has increased from 3.5 million in 1960 to over 45 million inhabitants in 2020 (Kindzeka, 2021). Over half of this population earn a living out of farming, herding and fishing.

Despite the countries in the region contributing very little to greenhouse gas emissions and global warming, the Lake Chad region is one of the most vulnerable in the world to climate change-related extreme weather conditions and natural disasters (Niang, *et.al.*, 2014). The impacts are exacerbated by rapid population growth, economic fragility of some nations, high dependence on rainfed agriculture and the weak adaptive capacity of states. In late 2017, for instance, more than seven million people suffered from severe food insecurity partly due to climate change and environmental degradation, and more than two million have been displaced by the violent conflict linked to Boko Haram terrorism in the region since 2009 (Vivekananda, 2017). The United Nations Security Council Resolution (2349) that addressed the predations of Boko Haram in the Lake Chad region, equally recognised "the adverse effects of climate change and ecological changes among other factors on the stability of the region, including through water scarcity, drought, desertification, land degradation, and food insecurity (UNSG, 2021).

¹ Ecological collapse refers to a situation where an ecosystem experiences a drastic, possibly permanent, reduction in carrying capacity for all organisms, often resulting in mass extinction. See, for instance, Vogelaar, A.E., Hale, B. W., & Peat, A. (Eds.). (2018). *The discourses of environmental collapse: Imagining the end*. Routledge

The worst affected areas include Adamawa, Borno and Yobe States of Nigeria, the Diffa region of Niger, Hadjer Lamis and the Lac Region in Chad, and the North and Far North Regions in Cameroon. Consequently, scholars, policymakers, organisations and development actors are increasingly concerned with the nature and impact of climate change on peace, security and development in the region (Onuoha, 2010; Nagarajan, 2018; Schmidt & Muggah, 2021a). To be sure, the relationship between climate change and conflict is the source of a great deal of controversy in the literature. While some authors see climate-induced scarcity as leading to conflict over resources, a growing body of empirical evidence points to the role of institutional failures in conflict (Mbaye & Signé, 2022).

This report reviews some of the existing literature on the manifestation and effects of climate change on the Lake Chad region, to highlight how communities, civil society organisations (CSOs), researchers, policymakers and think tanks from the region understand the nexus between climate-security, natural resource conflict and community resilience. In addition, it maps existing initiatives and programmes underway in the region that aim to address climate security, natural resource conflict and community resilience challenges. The essence is to ascertain, if any, the gap between what exists in the extant literature and manifest realities in the region to inform policy and programmatic recommendations.

The review selectively focuses on existing research and documents (mostly scholarly articles and official/policy reports) that relate to climate change and natural resource conflict in the region. The papers were read in-depth and were selected for inclusion based on their relevance to the following thematic consideration: the manifestation of climate change; effects of climate change on livelihood; relations between climate change and conflict; climate change adaptation strategies; and climate change and security.

The report prioritises literature that focused on the four countries that bordered Lake Chad: Cameroon, Chad, Niger and Nigeria.

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Manifestation and Effects of Climate Change in the Lake Chad Region

Climate change manifest in different ways in the Lake Chad region. These included unpredictable rainfall, droughts and longer dry spells, flooding, and extreme heat, among others. These trends have generated negative effects on the well-being of the population and communities in the region in the form of livelihood or food insecurity, forced migration and displacement.

Reduced and Unpredictable rainfall

The changes in rainfall pattern are one of the common evidences of the manifestation of climate change in the Lake Chad region (Lemoalle, et. al., 2012; Pham-Due, Sylvestre and Fetal, 2020). Rainfall variability, predicted to decrease 11–13% in the next two decades, has led to conditions where seasonal crop planting and harvesting has become

unpredictable in the basin. Crops are unable to take root and flourish when the expected rains do not come. Research shows that fluctuations in water availability pose a major threat to already vulnerable populations, especially to those dependent on rain-fed agriculture as their major source of economic activities and food security (Amali, et. al, 2020; Schmidt & Muggah, 2021b).

Skah and Lyammouri (2020) note that agriculture (rice, wheat, tomatoes, onion, etc) is highly impacted by increased temperature and rainfall variability and unpredictability. For instance, more than 80% of Niger's population rely on agriculture for their livelihood, the vast majority of whom in the form of rainfed, small subsistence agriculture. Small-scale farmers are the most directly affected by climate variability (Harter, 2022; OCHA, 2020). In the Far North Region of Cameroon, which is the region with the highest level of risk related to the economic impacts of climate change on agriculture, the poverty level is 67.9% compared to 38% nationally (world bank 2017).

In addition, **“climate change effects such as reduced and erratic rainfall, coupled with high temperatures, are leading to high rates of lake water evaporation.** This causes drought-like conditions and the lake to recede – at times – by as much as 90% over the past 50 years” (Tower, 2021, p.25). Climate change has therefore forced many affected communities in Cameroon, Chad, Niger and Nigeria to move closer to the receding lake to access water, fish, trade and economic survival. Consequently, internal movement closer to the lake’s shores has triggered competition between livelihood groups and communities over dwindling resources. Also,

declines in rainfall due to climate change and human stream flow modification due principally to construction of dams, have led to reduced river flows and shrinking wetlands, thus reducing the distribution and abundance of fish in the Lake basin (Young, et al, 2011). There are about 23 dams in the zone (Alfa, Adeofun, & Ologunorisa, 2008).

Drought and longer dry spells

Studies and media reports have shown that droughts have become more regular in the region (Schmidt & Muggah, 2021b). Insufficient precipitation is the main factor that causes drought, while its severity depends on timing, distribution and rainfall intensity (Yaduvanshi et al., 2015). In 2021, for instance, agricultural yields significantly dropped in Far North region in Cameroon, particularly because of the prolonged drought in the departments of Chari, Logone, and Mayo-Sava (acaps, 2022). In Lac province of Chad, the drought causes the degradation of natural resources; the decline in agricultural, pastoral, and fishery production; and the erosion of biodiversity.

Drought is one of the main climatic phenomena that severely affect food production in Niger. Temperatures are rising 1.5 times faster in Niger than the rest of the world, leading to a cycle of droughts that are eroding the 14% of land that is arable (Harter, 2022). Over the past 20 years, the country experienced repeated large-scale droughts leading to national food security crises in 2005, 2008, 2010, and 2012 (Brunelin, et. al. 2022). The 2010 drought stands out for its magnitude, affecting almost 7,900,000 people.

Similarly, droughts occur throughout the length and breadth of Nigeria. However, they are more frequent and much more severe in the northern states of Borno, Gombe, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara. Major drought occurrences in 2007 and 2011 in northern Nigeria resulted in famines (Abaje et al. 2013). Farmers in the severely affected states recorded poor crop harvests especially of rice and other grains, which rely on water for bumper yields. In addition, drought manifestation in the northeastern part of Nigeria contributes to the shrinking of Lake Chad and the disappearance of fertile soils (Juma, 2017).

Rising temperature (extreme heat)

The effects of climate change in the region also include temperature increment and extreme heat. The temperature increment in Chad occurs at rates that are above the global average. The average temperature in Chad is projected to increase by an average of 1°C, particularly in the northern part of the Sahel region and the entire Saharan zone (Musa, et al. 2022). The temperature rise is

projected to be 1.5 times higher than in any place in the world. This rise in temperature also results in wildfires that have been degrading arable lands and causing loss of water resources for agriculture. In Niger, the rise in temperatures due to climate change is estimated to cause 10 to 20% reduction in the yields of most rainfed crops by 2050, compared to the year 2020 (Faye et al., 2018). In 2021, for instance, there was a 39% drop in cereal production in Niger due to rising temperature and longer dry seasons (Harter, 2022).

Heat stress as a result of the rising temperatures in the region has endangered the lives and livelihood of people, including affecting the lives of their animals. Heatwave affects livestock's health, resulting in poor growth, fertility reduction and low milk production or, worse, mortality in severe conditions. This has resulted in a loss of livelihoods for many Chadians as they are mainly agro-pastoralists, further exposing them to poverty and hunger (Musa, et al. 2022). Meanwhile, the population affected by at least one heatwave per year is projected to rise from 2.5 % in 2000 to 14 % in 2080 (Tomalka, et. al. n.d). This is related to 49 more very hot days per year over this period.

In Nigeria, heatwaves associated with climate change is having disproportionate impact on most vulnerable groups such as the poor and internally displaced persons (IDPs) living in makeshift camps. It is feared that thousands of displaced persons in Nigeria's northeast region, especially in Borno and Adamawa states will have to endure high temperatures forecasted to reach 40°C on peak days in 2023. The IDPs live in tarpaulin tents in overcrowded camps. Tarpaulin tents are made of heavy-duty polyethene material that is usually waterproof. They are poorly ventilated and retain unbearable levels of heat (Ibrahim and Muhammed, 2023). Conceivably, high temperatures could worsen the outbreak, spread and fatality of infectious diseases such as Lassa fever, yellow fever, measles, chicken pox, monkey pox, and cholera in the affected areas.

Flooding

Climate change is also contributing to the incidence of flooding in the region due to intense precipitation in some affected areas. The flood situation in the Lake Chad region in 2022 is already catastrophic due to heavy rainfall. In August 2022, for instance, intense rainfall and poor urban planning led to devastating flood disasters in Chad that affected over 442,000 people (Ramadane, 2022). At least 35 lives were lost in weeks of flooding that displaced 76,000 people in Niger between July and August, 2022. Some 12,917 people were affected in the Diffa region (Haruna, 2022a). Similarly, flooding has worsened in the Far Northern region of Cameroon, with areas around Lake Maga, Mayo-Danay and Logone-et-Chari departments being the worst affected (Zambo, 2022). In September 2022, weeks of flooding along Cameroon's northern

borders with Chad and Nigeria swept away several villages, displacing thousands of people and destroying farm plantations (Kindzeka, 2022).

Since the beginning of the rainy season in 2022, flooding has swept through several states in Nigeria, affecting more than half a million people, severely damaging 37,633 houses, and displacing 73,379 people (Africanews, 2022). In the northeast (especially Adamawa, Borno and Yobe states which are hardest hit by the Boko Haram insurgency), people displaced by the conflict have seen their farms and homes destroyed by flooding that occurred in August 2022. A major flood in Borno State submerged the Banki internally displaced persons (IDP) camp, further putting IDPs and other residents at risk of a waterborne epidemic (Victor, 2022). Thus, intense flooding in the Lake Chad region is adding to the cycle of ‘re-displacement’, ‘multiple’ displacement, and livelihood collapse.

Overall, climate change manifestation is exacerbating livelihood losses, food insecurity, and poverty in the region with consequences for peace and security. A large number of the region’s population is threatened as a result of climate shocks which has negatively impacted nearly 50 million people (FAO, 2021).

As analysis in the succeeding section reveals, these effects are contributing to, or compounding, the risks of land disputes, violent conflict, criminality, and prevalence of illicit economies, as the affected population either compete for dwindling natural resources or indulge in illicit activities for survival and sustenance.

A photograph of a fisherman standing in a small wooden boat on a calm body of water. The fisherman is wearing a yellow and brown shirt and brown pants, and he is smiling while holding a fishing net. The background is a dense forest of green trees and bushes, reflected in the water. The lighting is warm, suggesting late afternoon or early morning. In the top right corner, there are two large, white, slanted rectangular shapes.

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Climate Change and Natural Resource Conflicts in the Region

Interestingly, there is an emerging consensus that climate change is not the source of all ills, but a threat multiplier of conflict and instability (UNSG, 2021). The idea of threat multiplier entails that climate change effects interact with and have the potential to exacerbate pre-existing threats and other drivers of conflict or instability to contribute to security risks (Bushby, 2020; Day & Harper, 2023). Few scholarly works have focused on how climate change intersects with conflict over natural resources in the region (Onuoha, 2009; 2010; Sone, 2012; Ehiane & Moyo, 2021). The impact of climate change in the Lake Chad region—including warmer temperatures, drought, irregular rainfall, declining water levels, and degrading pastureland—has generated at least two major pathways to conflict and violence in the region. Firstly, increased competition over scarce natural (land and water) resources around the lake chad region; and secondly, increased human migration resulting in conflict in communities farther from the surrounding communities of Lake Chad (USAID, 2020).

The increase in violent conflict is the most striking feature of the cumulative effects of climate change around the Lake Chad region (Adano & Daudi, 2012). Extant literature on conflicts in the region suggests that an overwhelming percentage of these conflicts are resource-based conflicts (Masari 2006; Onuoha, 2009). Conflicts have manifested when communities and individuals competitively intensified claims over resources – water, arable land, fishing areas, and pastures – Ehiane & Moyo, 2021). When parts of Lake Chad recede or flood, groups relying on different livelihoods (e.g., agricultural and pastoralism) and living in conditions of precarious scarcity can come into increased contact and competition. As populations are compressed amidst weak or ineffective mechanisms to mediate tensions, the potential for violent escalation is rising. Increased competition for resources like fertile land and freshwater is already disrupting societies and straining social cohesion in communities.

These stressed conditions have resulted in natural resource conflicts over fishing rights, water and grazing land in some parts of Cameroon, Chad, Niger and Nigeria. Recent examples include recurrent clashes between Musgum and Shuwa Arab communities over natural resources (water scarcity) in the Logone-Birni commune in Cameroon in December 2021, which resulted in the killing of over 40 individuals (UNDP, 2022, Zambo, 2022). A similar incident occurred in August over land in the Logone-Birni commune (Etahoben, 2021). The spate of resource conflicts has resulted in at least 37,018 IDPs in Cameroon and around 37,500 taking refuge in Chad (Aniekwe, 2022). The precarious situation has equally heightened the recurrence of clashes between Shuwa Arabs from the Chadian east and the Fulani pastoralists from the Nigerian southwest over

declining fishing and pastoral opportunities at the Lake's southern pool (Schdimt & Muggah, 2021). Water scarcity has also resulted in regular clashes between ranchers and fishers in Logone and Chari, Cameroon. In August 2021, for instance, about 11,000 civilians fled from Logone and Chari to Chad after a conflict over water between cattle ranchers and fishermen killed 40 people and wounded 70 (Kindzeka, 2021). Often, men and boys were among the first to flee when conflict erupted, leaving women, children and the elderly behind (United Nations, 2018).

Vivekananda, et. al. (2019) highlights the conflict trap in broader Lake Chad and how climate change and conflict dynamics create a feedback loop where climate change impacts seed more pressures while conflict undermines social cohesion and coping mechanisms in communities. Increasing unpredictable rainfall patterns induced by climate change have had the most impact on the resilience of communities around the lake in ways that implicate tension, violence and conflict. Climate change has resulted in alteration not only in rainfall, but also the disorientation of farmers (lack of control of the agricultural calendar) to plant seeds and consequently this leads to very poor yields (Zambo, 2022). The reduction in the size of the Lake Chad, for instance, has not only undermined livelihoods systems but led to the loss of invaluable biodiversity. For example, the Kuri, a unique cattle breed found in the Lake Chad Basin, is threatened with extinction due to retreating waters of the lake and the resulting reduction of its native habitat (United Nations Environmental Programme, 2018; Mpofu & Rege, 2002). Also, the sitatunga (or water gib, antelope) is considered extinct in Niger. However, a declining population is still present in Nigeria (United Nations Educational, Scientific and Cultural Organization, 2021). In addition, droughts over the years have also led to the loss of pasture. Those who remain in Lake Chad shoreline communities such as Doron Baga also lament the death of livestock. The resulting resource scarcity, livelihood insecurity and high poverty rates are causing or exacerbating social tensions and conflicts within and between communities around Lake Chad (Salkida, 2012; Vivekananda, 2019; Frimpong, 2020).

There are repeated conflicts among nationals of different countries over control of the remaining water. Cameroonians and Nigerians in Darak village, for example, constantly fight over the water. Nigerians claim to be the first settlers in the village, while Cameroonians invoke nationalistic sentiments, since the village is within Cameroonian territory (Salkida, 2012). In Chad, clashes are growing within the Buduma group, with sub-groups opposing each other over the ownership of certain islands or developed polders. In the Nguelea canton, fatal clashes have been reported. Clashes over land property also led to fatalities and displacement in Layrom and Tchougoudi, in the sub-prefecture of Bol (Aniekwe, 2022). Conflicts also recur between the Buduma and Kanembu communities. The issue of land is key in these semi-desert areas, located on the margins of the Sahel. The watered lands around the lake prove very attractive for

productive activities –crop, livestock, and fish production – and are at the centre of intense competition within and between the riparian communities (Aniekwe, 2022).

Agriculture remains the main productive activity that sustain their economies (Zambo, 2022). As noted by Frimpong (2020), about 80-90% of the Basin's population depends on agriculture, livestock, and fisheries, but warming temperatures are causing desertification and water scarcity, which in turn reduces food security, especially in the region's fishing and farming communities. This has heightened competition over resources such as water, land, and food, resulting in tension, conflict and intercommunal violence. In the Diffa region, the commune of Foulatari, in the department of Mainé Soroa, conflicts have pitted the Fulani communities against the Mahamid Arabs. Tensions continue to occur regularly, although indiscriminate violence are rare (Aniekwe, 2022). Although intercommunal clashes between these groups are not of recent origin, the frequency has increased of late as climate change contribute to resource scarcity. Similarly, declining availability of natural resources due to climate change leads to two forms of community tensions, particularly in the cantons of Bol, Nguéléa 1, Nguéléa 2 and Ngarangou in the province of Lac as well as in the Canton of Mani in the province of Hadjer Lamis. Inter-communal conflicts most often occur between Boudouma herders and Kanembou farmers, while intra-communal conflicts occur within the Boudouma clans, particularly on the islands of the lake (Henri, 2022).

Some studies have also shown that conflicts over natural resources have manifested in some communities adjoining the Lake Chad or those far from it on account of migration dynamics in response to climate change (Onuoha, 2010; Ikhuoso, et. al., 2020; Ehiane & Moyo, 2021). In the past, locals have adapted to climate change and environmental challenges by simply switching livelihood system or moving to other suitable locations around the Lake to farm or graze their herds in response to drastic changes in seasonal and inter-rainfall patterns over the years. As parts of Lake Chad dry up, most farmers and cattle herders have moved towards greener areas such as Mousgoum community in Cameroon's Far North Region, where they compete for land resources with host communities resulting in violent conflicts at times. The migratory pastoralists have often clashed with host communities due to disputes over resources such as water or arising from the destruction of farmlands by their herds. Places affected the most in Nigeria are the Northcentral and Northwest regions. Around 4,000 people died in Nigeria as a result of farmer-pastoralist conflicts between 2016 and 2019 (United Nations 2020).

Ikhuoso et. al., (2020) posit that the relationship between climate change and farmer-herder conflict is associated with water scarcity, illegal land encroachment, and livestock feeding, among others. Climate change has caused the migration of herders onto arable farmland, often

putting them at loggerheads with crop farmers. Consequently, many locals have gone to Kano, Abuja, Lagos and other big cities for menial jobs or even engage in social vices for survival (Onuoha, 2009; Salkida, 2012). In Nigeria, for instance, “climate change’s impact has led to the frequent and desperate movement of the pastoralists from the northern to the southern part of Nigeria in search of grazing for their herds” (Ehiane & Moyo, 2021, p.1863).

Similarly, the impact of climate variability are evident in Chad, as it has increased the movement of the herders southward for grazing even before the farmers harvested their crops (Blench, 2001). In Cameroon, particularly in northwest Cameroon, there has been a persistent farmer–herder conflict driven by climate change, which has resulted in scarcity and insecure access to grazing land and farming, and food insecurity (Tellen, Anchang & Shu, 2014). Sone (2012, p.83) contends “that the recurrent conflicts involving farmers and cattle grazers over land ownership in the northwest region of Cameroon have their roots in scarcity of land, climate change and the ‘poor’ application of statutory laws guaranteeing landownership”.

Violent inter-communal clashes over resources further compound population displacement originally triggered by the Boko Haram insurgency in the region. Some 2.5 million people in the Lake Chad region have been displaced as a result of violent conflict linked to the Boko Haram insurgency (Renate et al, 2008) and almost 10 million people require humanitarian assistance to survive (Shelterbox, 2020). In the Diffa region, for instance, OCHA (2020) estimated that 469 000 need humanitarian assistance due to the security crisis linked to insurgency and environmental challenges. Also, 39% of the population in Lac Province are displaced (Skah & Lyammouri, 2020). The forced displacement of people has taken a toll on the fragile natural resources in some places, leading to conflicts. In the Far North region, conflicts and tensions also arise between the communities of displaced persons/refugees and the host populations in the departments of Mayo-Kani, Diamaré and Mayo- Danay (Zambo, 2022).

Another development of significance is the devastating impact of population displacement on natural vegetation around refugee camps. Owing to their poor economic situation, refugees and displaced persons living in camps such as the Igawa camp in the Mayo Sava department and Minawawo camp in the Mayo Tsanaga department engage in excessive cutting of wood for cooking or resell in Nigeria to generate income (Zambo, 2022). Around the Minawao refugee camp, refugees and host communities now must walk up to 18 Km to collect fuelwood - compared to 2-3 km before the crisis (Skah & Lyammouri, 2020). Resettlement areas for displaced persons and refugees put enormous pressure on natural resources, which are severely exploited without reforestation. This, in turn, contributes to climate change as natural vegetations are lost to indiscriminate logging or felling of trees. Meanwhile, areas abandoned by populations

fleeing Boko Haram insurgency are more likely to regenerate and adapt to climate change (Zambo, 2022). In this way, the insecurity also contributes to, or compound the challenge of, climate change.

Climate Change, Livelihood Vulnerability and Violent Extremism

Climate shocks in the Lake Chad Basin have created socio-economic shifts that have been linked to recruitment into insurgent groups such as the Boko Haram and its splinter group, the Islamic State in West Africa - ISWAP (Nagarajan et al, 2018). Ehiane and Moyo (2021, p.1678) contend that livelihood insecurity in the region enhances the recruitment strategies of non-state armed groups such as Boko Haram, as “people with increasingly vulnerable livelihoods are particularly susceptible to the financial incentives offered by armed groups for recruitment”. Boko Haram violence, in turn, has a mutually reinforcing impact on climate-related security risks for communities. For instance, “the blocking of access to parts of the lake by Boko Haram and state/regional security forces means that communities have lost significant livelihood diversification options, such as fishing and farming (Vivekananda, 2018; Mohanty, et. a. 2021). In addition, “farming of tall cereals such as maize, sorghum, and millet was prohibited by the military for fear that such farms could provide hiding places for launching attacks by the Boko-Haram terrorist groups” (Musa, et al. 2022, p.2).

Insecurity and military restriction as a part of counter-insurgency efforts by states and regional military forces, further stretch community resilience and peoples’ adaptive and coping capacity. Studies have shown that the restricted access to livelihoods has had more impact on women, who already faced limited access to markets in rural areas and limited participation in trading activities, exacerbated by a limited access to capital and credit to finance their trade (Pepper, Brunelin & Renk, 2017; Dabi & Mathieu, 2018). Existing long-term gender disparities in the region such as limited access to education for girls, weak participation in civic life and very little representation in traditional (and official) power structures and decision-making bodies have been exacerbated by the conflict.

Consequently, locals are facing challenges to sustain their lives and livelihoods in face of shocks triggered by climate change (Mohanty, et. a. 2021). For instance, about 60 percent of households who were exposed to climate shocks between 2016 and 2018 in Niger resorted to negative coping strategies such as taking their kids out of school, reducing the number of meals or selling productive assets (Brunelin, et. al, 2022). There is a growing body of evidence showing that poor livelihood and increased economic vulnerability of these communities has made young people more susceptible to being recruited by Boko Haram and ISWAP (Abdullahi, 2020). Indeed, a

recent study by the UNDP (2023) involving interviews with nearly 2,200 men and women in eight countries – Burkina Faso, Cameroon, Chad, Mali, Niger, Nigeria, Somalia, and Sudan – revealed that lack of jobs is the leading or most influential factor driving people to join violent extremist groups in Sub-Saharan Africa. The study found that 25% of voluntary recruits to such groups cited employment opportunities as their primary reason for joining, while 22% cited wanting to join with family and friends and 17% cited religious ideas (UNDP, 2013, p.67). This further corroborates the findings of previous studies that underscored the role of economic factors as one of the major drivers enabling recruitment by armed groups in Africa (Onuoha, 2014; UNDP, 2017). In the case of the Boko Haram, for instance, it was noted that “poverty and unemployment, poor parental upbringing, and neglect of children also underpin young people’s vulnerability to falling prey to violent extremism. Boko Haram has leveraged this vulnerability to deepen their process of recruitment and radicalization, especially in northern Nigeria” (Onuoha, 2014, p.9).

The pressures climate change and ecological changes exert on livelihoods, in turn, contribute to the cycle of criminality in the region and beyond. Cattle rustling, for instance, is one of the major criminal activities in the area (Mohanty, et. al 2021). Studies have shown that climate change contributes to the shrinkage of the Lake Chad as well as desertification of northern Nigeria. As herders migrate from the north in search of greener pastures in the Middle Belt and Southern regions their herds are often plundered by bandits and marauding Boko Haram militants (Onwuzuruigbo, 2019). The rate of cattle rustling has increased as armed non-state groups also resort to it as one of the means of generating fund for their operations. Boko Haram terrorists operate the most clandestine and sophisticated network of cattle rustling in the region. As noted by Okoli (2019, p. 64), “apart from accounting for its basic funding, cattle rustling has also been a critical source of milk, meat, as well as trade in animal skin and dry meat for Boko Haram insurgents. It has largely sustained its violent activities”.

In addition, ISWAP fighters tax fishermen, fish dealers and cattle rearers in areas they control in order to raise funds to sustain their acts of terror. Reportedly, ISWAPS is “tactically forcing many struggling young people to join their terror group by imposing higher tariffs and taxes before fishermen can gain access to the waters. Many who have suffered untold hardship in the past years had no choice but to yield to their demands” (Haruna, 2022b, para.7). Many are asked to pay over ₦100,000 (\$217) as a prerequisite to fishing. The miserable situation of local residents is further compounded, as they are faced with both the challenge of coping with declining livelihood opportunities due to climate change effect and having to pay exorbitant tax to terrorists.

Thus, sustained insurgent activities also feed into a negative spiral of increasing environmental collapse as agricultural infrastructure is destroyed, environmental management expertise is lost, and the natural environment is further degraded (UNODC, 2018). Since the advent of the Boko Haram crisis, some organizations involved in environmental protection have fled the conflict zones, leading to the stoppage of environmental conservation programmes. Furthermore, the destruction of infrastructure and the loss of financial and productive assets have reduced production and contributed to an overall increase in prices of staple commodities which in turn, affects purchasing power and increases food insecurity in the region (Vivekananda, Wall & Wolfmaier, 2018).

Amidst terrorist violence, “traditional governance structures have been ruptured by the conflict as leaders have been killed, moved away or lost trust, leaving power vacuums and weakened community leadership behind” (Vivekananda, Wall & Wolfmaier, 2018, para. 20). In July 2014, for instance, Boko Haram terrorists killed a traditional ruler and 11 other residents of Garubula in Biu Local Government Area of Borno state (Channels Television, 2014). In September 2020, the Shehu of Borno, Abubakar El-Kanemi, revealed that Boko Haram insurgents are targeting traditional rulers in some local government in Borno state, resulting in the killing of about 13 district heads in addition to many ward heads (Seye, 2020). Conceivably, the targeted killings lead to disruption of governance structures and weakening of the social fabric of the affected communities.

Climate change and violent conflict therefore reinforce each other in the region, straining community resilience and causing gendered impact in affected locations. Both the effects of climate change and the onset of recurring attacks by both warring parties have resulted in more than five million people becoming displaced throughout the region, both internally and across borders (Tower, 2021). Ongoing insecurity, compounded by the lack of access to livelihoods, continues to expose displaced communities to protection threats such as killing, abduction, and sexual abuse.

Women have been particularly hard hit. Food insecurity caused or exacerbated by climate shocks has gendered impact. There is a growing body of evidence showing that girls and women are usually the ones most affected by food shortages, with girls often eating less and last. Not only do they have less access to food, but they are more likely to be taken out of school and are vulnerable to child labour, early and forced marriages and sexual exploitation (Plan International, n.d). In addition, girls and women have to walk long distances to locate a clean source of drinking water. Despite women constituting a good percentage of the population and work force in the Lake Chad region, they lack traditional hereditary access rights to land or fishing grounds and,

therefore, tend to be poorer. The subordinate economic position of women and girls in the region has constrained them from engaging in meaningful, viable and sustainable adaptive strategies as compared to male stakeholders (Young, et al, 2011). Their precarious situation forces some to resort to negative coping mechanisms to survive, such as being subjected to early marriages by parents so as to reduce the number of family members to feed as well as involvement in survival sex (Dabi & Mathieu, 2018).

A study had found that women in the Lake Chad region are highly vulnerable to contracting diseases such as human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) due to their inability to negotiate safe sex (unequal power relations), intergenerational marriages, and transactional sex, among others (Young, et. al, 2011, p. 54).





This plan proposes solutions for sustainable intensification of livelihoods building on what makes them effective and resilient (mobility, multi-activity, multifunctionality) which is consistent with the proposed approach

Responses and Adaptation Strategies

Local and regional concerns have only continued to grow given the evolving situation in the region, triggering interventions in the form of initiatives and programmes by communities, civil society organisations, national authorities, regional bodies and international organisations. There are several initiatives and programmes in the region which aim to address climate security, natural resource conflict and community resilience challenges.

Responses by International Bodies in Partnership with Regional Bodies and States

At the regional level, for instance, there are instruments such as Strategic Action Programme (SAP) which are collaborative programmes by international partners such as the United Nations Development Programme (UNDP), World Bank and Global Environmental Facility (GEF) to address seven key environmental challenges: variability of hydrological regime and freshwater availability, water pollution, decreased viability of biological resources, loss of biodiversity, loss and modification of ecosystems, sedimentation in rivers and other water bodies, and invasive species (UNDP, World Bank and GEF, 2008). Also, there is the Regional Protection Dialogue on the Lake Chad Basin (2016), which is committed to providing a climate-related security risk assessment and climate risk management strategies in the Lake Chad region (Reliefweb, 2016); the Lake Chad Development and Climate Resilience Action Plan (LCDAP), which outlines engagements that will empower local communities to build resilience to climate change and increase regional development in the area (Lake Chad Basin Commission - LCBC, 2016); and the Regional Strategy for the Stabilization, Recovery and Resilience of the Boko Haram-affected Areas of the Lake Chad Basin Region (2018), which serves as an overarching regional approach in dealing with the deep-rooted causes of under-development and the drivers of violent extremism and conflicts in the Lake Chad region. This Strategy has supported affected communities in Borno, Yobe, and Adamawa in Nigeria; Diffa in Niger; Hajder-Lamis in Chad; and the Northern Region of Cameroon (Frimpong, 202; Abdullahi, 2020);

Together with its partners, the UNDP also carries out development projects focusing on natural resource management and the rehabilitation of Lake Chad's ecosystems. The intervention covers the reforestation of vegetation cover around the lake, supporting women's economic initiatives and helping adapt agricultural practices to climate change. Agricultural kits valued at more than 80 million CFA francs (about US\$140,000) have been donated by UNDP to more than 400 households around the lake to boost community food production and fight poverty (UNDP, 2017). Also, the UNDP Chad collaborated with the LCBC and the Global Water Partnership-Central Africa (GWP-CAf) to deliver a regional capacity-building programme for CSOs from

Cameroon, Chad, Nigeria, Niger, Central African Republic June 2022, to enable them to sensitize the communities within the Lake Chad Basin area on environmental awareness (GWP-CAf, 2022). The initiative is to assist the LCBC member states achieve integrated and resilient ecosystem-based management of the Lake Chad.

Responses by Lake Chad Basin Commission and its Member States

In 2015, the LCBC presented (COP21), a plan for development and adaptation to climate change in Lake Chad. This plan proposes solutions for sustainable intensification of livelihoods building on what makes them effective and resilient (mobility, multi-activity, multifunctionality) which is consistent with the proposed approach (Skah & Lyammouri, 2020). The Lake Chad Adaptation to Climate Change aims to contribute to increasing resilience to climate change, food security and social cohesion especially for young people and women in the Lake Chad Basin. There is also the Great Green Wall initiative with the potential to combat the climate crisis and improve the living conditions of vulnerable communities in the four riparian states of the Lake Chad (See Table 1).

Beyond interventions through the instrumentality of the LCBC, member states in the region are responding to complex challenges posed by climate change and natural resource conflicts by formulating or implementing policies, plans and strategies (See Table 1). Some of these interventions have been in partnership with international organisations, civil society organisations and local communities. In Cameroon, for instance, there is the EcoNorCam programme, which supports the development of a resilient territory, conserves biodiversity and improves food security (ICS, 2022; Zambo, 2022; LCBC, 2016). The government is also investing in mitigation measures, as detailed in Table 1. In Chad, the government has undertaken several other projects, including the Project to Improve the Resilience of Agricultural Systems in Chad (PARSAT), which aims to support vulnerable populations by securing against climate risks and intensifying agricultural production. In Niger, there is the Community Action Project for Climate Resilience (PACRC) and the Climate Smart Agriculture Support Project (PASEC) (World Bank, 2021) that address the interlinked challenges of food security and climate change, among other initiatives.

In Nigeria, some initiatives have also been undertaken to address the security and environmental challenges facing the northern part of the country, particularly encroaching desertification that has affected agricultural livelihood systems – fishing, farming and animal husbandry. The National Adaptation Strategy and Plan of Action on Climate Change (NASPA-CCN) adopted in 2011 as well as the National Livestock Transformation Plan (2019) are among the notable initiatives by the Nigeria government to address the problem of climate change and to reduce conflict between herders and farmers in the country. The implementation of these diverse

initiatives by member states have recorded varying degrees of successes and setbacks (Table 1).

Responses by Local Communities

Residents and communities severely affected are responding to the challenges posed by climate change in the region in diverse ways. Some communities in the region have demonstrated an extraordinary capacity to cope with unpredictable environmental conditions. Local populations have deployed new coping strategies to survive, the most common of which has been to leave their places of residence to migrate to more clement places, in particular to the shores and the islands that appeared after the withdrawal of Lake Chad in order to benefit from their productive potential (Henri, 2022). Studies have shown that seasonal or semi-migration and temporary settlements in areas around the lake bed are significant strategies adopted by fishermen, farmers and graziers to maximize opportunities for farming and grazing offered by the reducing lake (Zieba, Yengoh & Tom, 2017; Tower, 2021; Germer & Njoya, 2022). As Tower (2021) puts it, communities have been coping by making multiple moves to the lake's shores, in what has been described as 'chasing the water'. The adaptation strategies put in place by the fishermen include application of new fishing methods, use of prohibited fishing gear, and migration of fishermen to the south of Lake Chad (Enock, 2020).

As part of their coping strategies, diverse livelihood strategies are employed by the communities in the wake of climate change. As noted by Ehiane and Moyo (2021, p.1680), "these livelihood strategies are often alternated, for example, if crop-growing fails due to drought and pests, income can be derived from trading". Some residents who were fishermen have switched to farming following the depletion of the lake due to climate variabilities (World Bank, 2017).

In the provinces of Lac and Hadjer Lamis, the adaptation strategies put in place by the farmers include the adoption of new improved short-cycle varieties, exploitation of lowlands and polders after the waters of the lake have receded, practice of irrigated perimeters, and change in agricultural calendars (Enock, 2020). Similarly, herders in the region have adapted by seasonal migrations to the islands of the lake and to the south of Lake Chad, encampment of the cattle in the fields after the harvests, and the storage of the fodder (Enock, 2020). In particular, some pastoral communities in Cameroon apply adaptive water and forage management practices to better protect their animals against the threat of drought that causes premature death. They normally dug boreholes and planted fodder fields to deal with the extended droughts during the dry season (Germer and Njoya, 2022). The pastoralists move their livestock to settle in the lakebed for dry season grazing and, in some instances, they emigrate farther into the hinterlands.

Other adaptive strategies applied by communities in the Lake Chad region include promoting

crop rotation systems, limiting the use of chemicals, mulching systems that prevent water run-off, innovative sources of water conservation, and the collection and promotion of organic composting to offset the lack of organic material in the soil from overgrazing (Tower, 2021). Recession cropping in the moist soil following the main harvest at the end of the rainy season, is equally being practiced or intensified as a coping strategy by some farmers. In addition, drought-resistant crops have been used by smallholder farmers as an adaptation strategy in Nigeria (Awojobi, 2017).

Furthermore, Tower (2021) notes that some non-governmental organisations (NGOs) are working in partnership with local government in piloting climate-adaptive demonstration farms to show planting, harvesting, weed management and innovative water conservation techniques. The NGOs provide resilient seeds proven to be more adaptive to changed climates and are also linking communities to agricultural dealers who can sell farmers' excess harvests. However, a notable drawback is the prohibitive nature of Lake Chad Research Institute (LCRI)-developed climate adaptive strategies to most farmers, such as training, farming demonstrations, tools, alternative crops and heat-resistant seeds.

As with response to the impact of climate change on livelihood systems, some communities are responding to conflicts exacerbated by climate change through innovative conflict resolution mechanisms and adaptive mediation. In Guyuk Local Government Area of Adamawa state, for instance, an NGO, the Agaji Unity Foundation (AGUF) facilitated the signing of a peace agreement in June 2020, between representatives of farmers and herders to end violence over access to land for farming and grazing. The leaders of the groups agreed on the actions required to prevent further escalation of conflicts to violence, such as the period for harvesting of crops so cattle can graze on fallow land, the prohibition of grazing during periods of darkness and with the help of underaged children, the re-demarcation of grazing routes, and the establishment of dialogue and mediation committees to resolve disputes (British Council, 2020).



A photograph of a wooden boat, possibly a traditional outrigger canoe, resting on a rocky and shell-covered shore. The boat is positioned in the lower center of the frame, facing away from the viewer towards a body of water. The water is calm, reflecting the warm, orange and yellow light of a sunset or sunrise. In the background, a line of tropical vegetation, including several palm trees, is visible against a sky filled with soft, dark clouds. The overall mood is serene and contemplative. In the top right corner, there are two thick, dark blue diagonal lines.

*The climate change-resource conflict-
community resilience nexus calls for new
thinking and brave, proactive strategies
to address enduring and evolving
challenges threatening peace, security,
stability and development in the region
in a holistic and integrated approach*

Summary of Impacts on Peace and Security

Notwithstanding these regional and local initiatives, the climate crisis is putting pressure on peace, stability and prosperity and complicating efforts at building peace in areas already affected by, and vulnerable to, conflict in the region. While conflicts among herders and farmers have existed in the region for centuries, they are becoming more frequent, intense and deadlier. Climate change is exacerbating conflicts between crop farmers and herders (pastoralists) over natural resources, such as land and water. In response civil society groups are facilitating dialogue and mediation initiatives between these competing but complimentary livelihoods groups (farmers and herders) to prevent or manage conflicts.

Climate change and conflict have undermined community resilience in the region, as they both weaken coping mechanisms and social cohesion. Besides farmer-herders clashes, the Lake Chad region is one of the places where climate change has been identified as an important contributor to armed conflict and violent extremism (Skah & Lyammouri, 2020). Population displaced by violence waged by non-state armed groups are increasingly exposed to re-displacement and multiple displacement occasioned by climate-induced extreme weather events such as flooding. This puts additional strain on already fragile community structures and traditional coping mechanisms, further undermining community resilience. The overall effects are increased economic hardship, forced population displacement, heightened vulnerability to extremist recruitment, expansion of criminality, and gender-based violence.

Conclusion

Climate change and environmental degradation are exacerbating the challenges faced by the Lake Chad population, most of whom rely on farming, fishing, and pastoralism. Increasing weather variability has severely impacted lives and livelihoods in the region, forcing people to adopt different coping mechanisms. Women has been severely impacted by both violent conflict and climate related shocks. In response, several projects were initiated by national governments, the international community and civil society organisations to reduce the impacts of climate change in the region. Consequently, the threat posed by climate change in the region is a subject of growing scholarly interest. But the few existing studies have not explored possible resilience infrastructure and practices in the region that could be strengthened to enable communities better withstand, adapt and respond to challenges posed by climate change on peace and security in the region. In addition, there is little or no focused attempt at examining and highlighting how climate change impact on the most vulnerable – women, youth and minority groups – who are often more exposed to security risks and affected disproportionately, given that societal norms

often constrain their capacities to cope and recover from climate shocks. Climate Diplomacy (n,d) for instance, has noted that women and disabled people are often excluded from political decision making while men are often viewed with suspicion as potential perpetrators of violence. Thus, interventions to address the climate change-fragility-conflict spectrum should aim at transforming underlying social exclusion, inequalities, marginalisation and power dynamics.

Given the manifestation of climate change as a “threat multiplier”, there is an urgent need for the identification and implementation of relevant mechanisms that would serve as "threat minimizers" to offset the potential for persistence of violence, conflict and criminality in the region. This requires the implementation of climate mitigation and adaptation strategies, robust early warning and early response mechanisms, adequately resourcing social services provisioning, building strong local and national institutions, strengthening international cooperation, and prioritizing preventive diplomacy and adaptive mediation. In addition, resilient communities and resilient physical infrastructure are crucially needed to address current and evolving human security challenges created or exacerbated by climate change in the region.

For the region to effectively adapt to climate change, mitigate natural resource conflicts and enhance community resilience, there is the need to blend the traditional climate change adaptation practices with modern climate predictability systems to generate insights, experience and knowledge that could further enhance community resilience in the region. Climate security risk assessments and reporting from local, national and regional levels should also be prioritised and adapted as an early warning tool for conflict prevention.

The creation of a regional knowledge hub will be critical in harnessing or producing the requisite insights, conducting and disseminating critical assessments and identifying and propagating best practices, especially on coping mechanisms and adaptive mediation efforts at the community levels. Such new insights, knowledge and sound practices will be critical in addressing the gaps and challenges in the climate adaptation strategies in the region, designing and financing resilient infrastructures against climate shocks in the region, and managing multi-displacement and re-displacement caused by climate crisis and resource conflicts.

Additionally, critical interventions will address the role of economic revitalisation in building community resilience and promoting transitional justice as a sustainable pathway for inclusive peace and sustainable security. The climate change-resource conflict-community resilience nexus calls for new thinking and brave, proactive strategies to address enduring and evolving challenges threatening peace, security, stability and development in the region in a holistic and integrated approach. The Lake Chad Basin Governors’ Forum offers the right platform to initiate

and build the needed resilient systems. By recognising and addressing the nexus between climate change, resource scarcity, and terrorism in the Lake Chad region, it is possible to develop comprehensive strategies that promote stability, community resilience, and sustainable development.





MAPPING OF CLIMATE CHANGE SECURITY INITIATIVES IN CAMEROON, CHAD, NIGER AND NIGERIA

Initiative/Program	Green Sahel Project
Actor(s)	Ministry of Environment, Selected Communities
External support	Global Environment Facility, UNDP, Government of Cameroon and Cotton Development Corporation (Sodecoton).
Timeframe	2008-2022
Area of responsibility	Some localities of the departments of Diamaré, Mayo Kani, Mayo Sava, Mayo Danay, Mayo Tsanaga, Logone, and Chari
Beneficiaries	Populations of localities of the departments of Diamaré, Mayo Kani, Mayo Sava, Mayo Danay, Mayo Tsanaga and Logone and Chari in the Far North region
Brief description (100 words)	The project aims to combat desertification in the Far North region of Cameroon. It involves reforesting 126 cashew plots in six departments namely: Diamaré, Mayo Kani, Mayo Sava, Mayo Danay, Mayo Tsanaga and Logone and Chari. The project also aims to contribute to peace and social cohesion
Main challenges	- Insufficiency of the annual budget allocation and the complexity of the procedures for releasing funds - High temperature in the zone exacerbate evapotranspiration and the drying out of the environment. - The area is also favorable to the development of termites which affects the emergence of plants (40%). - other challenges include acts of vandalism and incivility of populations on reforestation sites, bush fires, the difficulty of allocating reforested sites by communities, and the problem of the legal status of reforested sites
Sustainability/ Impact	Reforested an area of 500 hectares in the region Beneficiary populations obtained temporary jobs during the implementation of the project

Sustainability/ Impact	Led to the restoration of flora and fauna of certain areas threatened by climate change and the advance of the desert.
Initiative/Program	Project: People's resilience to climate change (REPECC)
Actor(s)	Ministry of Environment and Sustainable Development, Ministry of Territorial Administration
External support	Funds from the United Nations Development Programme (UNDP)
Timeframe	2014-2016
Area of responsibility	The departments of Mayo Kani, Mayo Danay, Logone and Chari in the Far North region
Beneficiaries	Populations of the localities of the departments of Mayo Danay, Mayo Kani and Logone and Chari.
Brief description (100 words)	The project promoted the use of improved seeds and organic fertilizers among farmers to boost agricultural production. It included training and awareness creation for farmers on the use of organic fertilizers, and improved seed support. It raised awareness of the values of living together and social cohesion.
Main challenges	- The risk of project failure based on bottom-up determinant adaptation approaches. - Ambitious budget programming but based largely on funding to be sought (Funding from the country Program Action Plan) is backed by more than 69% of the funds to be sought from sources other than TRACs assumed to be stimulus funds from other financial partners). - Lack of synergy between the REPECC and other under-exploited cooperation programs. The REPECC does not yet sufficiently capture the opportunity for synergies offered by these various supports, which would have made it possible to some extent to optimize the achievement of outputs). - Limited involvement of local actors (the program is directed

Main challenges	from Yaoundé without a strong link with the decentralized services of the Ministry of the Environment, the Ministry of the Economy, the Ministry of Youth or the Ministry of Territorial Administration and local community beneficiaries). - The overall security situation and land insecurity which limit the commitment of communities to sustainable development investments - Absence of coordinated effort to limit the overlaps of ongoing resilience initiatives and optimize their synergy - The challenge of unsustainable water management to which an adequate response would contribute to making substantial progress at the community level in terms of improving agro-sylvo-pastoral incomes
Sustainability/ Impact	There has been a decrease in conflicts related to resource scarcity in the project's target localities Increase Agricultural production
Initiative/Program	Project to support the development of agricultural sectors (PADFA)
Actor(s)	Ministry of Agriculture, Ministry of the Environment and Nature Protection.
External support	Government of Cameroon, Global environmental Facility.
Timeframe	2019-2026
Area of responsibility	The Mayo Danay and Logone and Chari departments in the Far North region
Beneficiaries	Community interest groups working in the rice and onion sectors
Brief description (100 words)	The project seeks to support agricultural entrepreneurship to generate opportunity for small producers. It also seeks to

Brief description (100 words)	promote domestic private investment and co-financing.
Main challenges	- In lowlands and rainfed rice-growing areas, land management is most often traditional and under the responsibility of the sub-prefect. Thus, the problem of access to land for those who are not owners or do not have a rental contract (the right to enjoyment of the land remains essentially revocable and precarious and does not encourage land improvements likely to lead to better productivity). - Non-taxation of imported rice which undermine local rice production. - Poor management and use of related project resources, especially concerns over lack of transparency and monitoring of funds transfer. - Limited capacities of service providers on the ground.
Sustainability/ Impact	1. Support to agricultural producers. 2. Development and maintenance of hydro-agricultural facilities. 3. Strengthening access to agricultural credit. Construction and equipping of infrastructure storage and processing
Initiative/Program	Support for communities in conflict in Logone and Chari
Actor(s)	Government of Cameroon, Ministry of Livestock and Fisheries, Community Leader
External support	FAO/PAM
Timeframe	2021-2022
Area of responsibility	Localities of the conflict zone in Logone and Chari
Beneficiaries	The Mousgoum, Kotoko and Arab-Shoa communities and ethnic groups in the department of Logone and Chari.
Brief description (100 words)	An initiative of the government or respond to the causes of the conflict between farmers and herders

Main challenges	- Failure to ensure good management of land and resources constitute the basis of inter-community conflict between ethnic groups in the department of Logone and Chari. - The route reserved for herders is not clearly or not at all defined by the government, which has resulted in the emergence of inter-community conflicts.
Sustainability/ Impact	▫ Restoration of peace and social cohesion ▫ between breeders and farmers through the identification and delimitation of grazing and agricultural areas for breeders; ▫ Construction of vaccination parks. ▫ Provision of drinking water points for cattle ▫ Ensuring the availability of grazing areas ▫ Conduct of census of breeders
Initiative/Program	Project to support the populations of certain localities of the Logone department and chari victims of inter-ethnic conflicts in the Department of Logone and Chari
Actor(s)	Government of Cameroon, Ministry of Agriculture, Ministry of Domain and Land Affairs, Leader communautaires
External support	FAO/PAM
Timeframe	2021-2022
Area of responsibility	Localities of the conflict zone in Logone and Chari
Beneficiaries	The Mousgoum, Kotoko and Shoa Arab communities and ethnic groups in the Logone and Chari department
Brief description (100 words)	This is another government's initiative to support specific responses to the causes of the conflict between farmers and herders
Main challenges	- The difficulties of good management of land and resources constitute the basis of inter-community conflict between ethnic groups in the department of Logone and Chari. - The route reserved for herders is not clearly defined or not at all defined by the government, often resulting in the emergence of inter-community conflicts.

Sustainability/ Impact	- Restoration of peace and resumption of socio-economic activities - Support for improved seeds and agricultural equipment - Provision of financial support - Resettlement of victims - Construction of resettlement camps for communities affected by conflict.
Initiative/Program	Awareness-raising project for refugees and host communities and reforestation of ZAMAI and its surroundings
Actor(s)	Ministry of Forestry and Wildlife; Office of the United Nations High Commissioner for Refugees; Host populations
External support	UNHCR
Timeframe	2019
Area of responsibility	Localities of Zamai and Minawao in the department of Mayo tsanaga
Beneficiaries	Host populations; Internally displaced persons; and Refugees
Brief description (100 words)	In order to contribute to the resolution of conflicts that have become recurrent in the camps for displaced persons and refugees of Zamai and Minawoa partly from illegal logging, the Ministry of Forests and Wildlife, in collaboration with UN UNHCR, have undertaken to conduct awareness-raising sessions on the effects of climate change and a reforestation campaign.
Main challenges	- Deforestation of vegetation by refugees to serve as firewood - Occupation of arable land by refugees and IDPs and reduction of arable land, which leads to risks of conflict and reduction of agricultural production - The lack of prior consideration of the needs or the acceptability of the project by the entire local population (host population and refugees)

Sustainability/ Impact	▫ Raising awareness of populations on the dangers of illegal logging on vegetation cover and social cohesion - Reforestation of the Zamai and Minawao community forest
Initiative/Program	Program to respond to the impact of internal and external population movements in the northern regions of Cameroon
Actor(s)	Permanent Delegation of the European Union to Cameroon Government of Cameroon National Participatory Development Programme (PNDP)
External support	European Union EU Trust Fund for Africa
Timeframe	2016-2020
Area of responsibility	Sites for internally displaced persons and refugees in the Extreme-Nord region of Cameroon
Beneficiaries	Host populations; Internally Displaced persons; and Refugees
Brief description (100 words)	Develop the resilience of the most vulnerable, host, displaced and refugee populations. Promoting exchanges between communities, civil society, and local authorities in order to reduce conflicts related to access to resources, land use and basic social services
Main challenges	- The lack of inclusion of migrants in development processes - Natural disasters and the effects of climate change
Sustainability/ Impact	▫ Increase economic resources and access to basic social services in order to sustainably empower vulnerable populations ▫ Improving access to food and natural resources

Initiative/Program	Agroecology Project for Strengthening Food and Nutrition Security for Smallholder Farming Families in the Far North Cameroon Region (AE-SAN)
Actor(s)	Service d'Appui aux Initiatives Locales de Développement (SAILD), Joint Initiative Groups (ICGs), Farmers
External support	Bread for the world
Timeframe	2022-2026
Area of responsibility	10 villages in the departments of Mayo kani and Diamaré in the Far North region
Beneficiaries	Host populations; and Internally displaced persons
Brief description (100 words)	The aim is to respond to adaptation to climate change by proposing agroecology as an alternative to conventional agriculture through the support of producers with agro-ecological methods in the production of foodstuffs.
Main challenges	- Insufficient and poorly distributed rainfall; - limited use of agricultural inputs (quality seeds, fertilizers and pesticides) due to the cost of inputs and the lack of a quality supply - The main recurring predators are mainly leaf-feeding caterpillars, grasshoppers, seed-eating birds and pachyderms. - The poor conditions for carrying out the agricultural campaign (insufficient and poorly distributed rainfall, smaller sown areas, low runoff in the mayos) lead to a drop in rainfed cereal production by 34% per year.
Sustainability/ Impact	- Training and establishment of 50 endogenous facilitators - Training of smallholder farmers on appropriate farming systems - Support for the acquisition of means of production and appropriate conservation. (some 1500 farmers have trained and supported)

Initiative/Program	Food security and access to water project for populations on the move and host communities in the departments of Mayo kani and Diamaré in the region of the extreme-north. (HEALTH)
Actor(s)	Service d'Appui aux Initiatives Locales de Développement (SAILD), Bethlehem de Mouda Foundation, Joint Initiative Groups (ICGs), Farmers.
External support	Italian Agency for Development (AVSI)
Timeframe	2019-2021
Area of responsibility	10 villages in the departments of Mayo kani and Diamaré in the Far North region
Beneficiaries	Host populations and Internally displaced persons
Brief description (100 words)	The aim was to strengthen the resilience of IDPs/refugees and host communities to the issue of resource scarcity related to climate change, which is usually the cause of conflict. It aimed to train farmers to optimize their agricultural yield as well as provide them with material support. Also, it sought to enhance the availability of water points and finally promote access to good diet in order to avoid diseases related to poor nutrition.
Main challenges	- Access to water, basic sanitation services and food security remain difficult in the northern regions of the country and in particular in the Far North region affected by humanitarian crises. including mainly Boko Haram-related conflicts and floods.
Sustainability/ Impact	- 1600 producers have been trained and are autonomous and self-manage - Decrease in conflicts related to the scarcity of resources. - 500 people were supported on income-generating activities - Provided several village nurseries. - Improved agricultural productivity - Promoted access to water and better nutrition

CHAD

Initiative/Program	LCBC Support Project for the Improvement of Lake Management
Actor(s)	LCBC
External support	LCBC; UNDP; and FEM
Timeframe	2019-2023
Area of responsibility	4 countries in the Lake Chad Basin Chad: provinces of Hadjer Lamis and the Lac
Beneficiaries	NGOs, CSOs, Youth groups and Women's groups
Brief description (100 words)	The project aims to strengthen the LCB countries to achieve ecosystem-based, integrated and resilient management of the region.
Main challenges	- Difficulties in implementing project activities due to restrictive measures imposed by States in response to COVID 19 Security problems
Sustainability/ Impact	Several hundred hectares of restored land Trained Peasants (breeders, farmers and fishermen). Helped in forming Sectoral of the States. Contributed in training of civil society organizations

CHAD

Initiative/Program	Project to Improve the Resilience of Agricultural Systems in Chad (PARSAT)
Actor(s)	Government, Autonomous Territorial Collectivities, CSOs, Community-Based Organizations, Technical and Financial Partners
External support	-Ministry of Agriculture and Irrigation -International Fund for Agricultural Development (IFAD) -Global Environment Facility (LDCF-GEF)
Timeframe	2015-2022
Area of responsibility	Provinces of Guéra, Batha and Hadjer Lamis
Beneficiaries	Farmers -Women -Youth -Poor households
Brief description (100 words)	The Project aims to support vulnerable populations by securing them against climate risks and intensifying agricultural production, enhancing production, and supporting the economic activities of rural households
Main challenges	- The project has not invested enough in their sustainability. Some beneficiaries have been trained (administrative and financial management), but received very little support in aspects related to water management and maintenance of infrastructure/equipment. - Prevalence of insecurity hampering project implementation -Weak structuring of community-based organizations focusing on climate change
Sustainability/ Impact	- Supported farmers' organizations, especially through establishment of Field School Farmers (- The households directly benefiting from the project constitute roughly 25 per cent of the rural sedentary households in the intervention zone. - The constructing and repairing of water collection infrastructure

CHAD

Initiative/Program	Improvement of information, education and communication of rural and peri-urban populations on adaptation to climate change
Actor(s)	Association for the Development of Producer Organizations (ADOP); Social Action for Holistic Development (SODAH); Network of Community and Local Radios of Central Africa for Good Governance, Conservation and Sustainable Management of Natural Resources (RERAC)
External support	International Union for Conservation of Nature (IUCN)
Timeframe	2019-2023
Area of responsibility	The entire extent of Chadian territory, Mao & Bol (Saharan zone)
Beneficiaries	-Local rural and peri-urban populations - National institutions
Brief description (100 words)	The project aims to improve the process of sharing information, education and communication to rural and peri-urban populations on adaptation to climate change for better decision-making.
Main challenges	- Absence of permanent animators (Bol & Mao), which are people responsible for educating and communicating to the populations
Sustainability/ Impact	Validation of the cross-border disaster risk reduction/climate change adaptation strategy at the regional level Through a "hackathon" competition, 279 projects involving 761 promoters (including 1/3 female promoters) were supported to develop innovative solutions for managing the impacts of COVID-19. The LCBC Capacity Building Plan drawn up on the basis of a validated institutional and organizational analysis Some 50 executives (1/3 of whom are women) have been trained in innovative mechanisms for financing climate change and biodiversity

CHAD

Initiative/Program	Inclusive Economic and Social Recovery of Lake Chad (RESILAC)
Actor(s)	-Action Against Hunger (ACF) -Care
External support	European Union AFD URD Group
Timeframe	2018-2022
Area of responsibility	Lac Province (Townships of Bol, Nguéléa 1 & 2, Ngarangou
Beneficiaries	-Rural populations -Youth -Women -Vulnerable groups
Brief description (100 words)	The project aims to strengthen the resilience of local communities through the establishment of links between relief, rehabilitation and development (LRRD) in areas particularly affected by current environmental, socio-economic and security problems
Main challenges	-Security challenges arising from multiple displacement of displaced and returned people
Sustainability/ Impact	Fixing of the dunes and the clearing also made it possible to revalorize agricultural lands and to revive the local economy

CHAD

Initiative/Program	Recovery and Development Project for the Lac-Chad-Chad region (PROLAC)
Actor(s)	National coordination
External support	World Bank/International Development Association (IDA)
Timeframe	2022-2025
Area of responsibility	Provinces of Lake, Kanem, Hadjer Lamis, and Chari Baguirmi
Beneficiaries	Young populations, women, and some groups/victims of the violence of Boko Haram
Brief description (100 words)	The overall objective is to support national and regional coordination platforms and the strengthening of local capacities, to help restore sustainable rural mobility and connectivity and to strengthen the restoration of agricultural livelihoods in certain provinces of Cameroon, from Chad and Niger. It will also promote knowledge sharing and regional dialogue through a data platform hosted by the LCBC, while strengthening community empowerment
Main challenges	-Security risks -Affected areas not yet secured
Sustainability/ Impact	Organized several training activities for traditional leaders. Activities promoting social cohesion organized in communities involving displaced people, returnees and affected populations

CHAD

Initiative/Program	Coordination of women's associations for the development of Lake CAFDEL (Bol)
Actor(s)	Liaison and information unit for women's associations; Collège des femmes du national consultation council of rural producers of Chad (CNCPRC); Women's associations of Greater Kanem (Kanem, Hadjer Lamis); -Multifunctional Bowl Platform; Umbrella of artisanal women; and Women preachers
External support	United Nations Agencies; -International NGOs; Chad; LCBC; and Big Heart Foundation
Timeframe	Since 2017
Area of responsibility	Provinces of La, Hadjer Lamis and Kanem
Beneficiaries	Women; Youth; Children; and Victim or vulnerable groups
Brief description (100 words)	The project aims to bring together 6 women's organizations involved, among others, in tackling climate change through environmental protection activities. The project also supports in the structuring, supervision, advocacy and multifaceted support for the well-being of women
Main challenges	-Low technical skills in terms of coordination and women's groups -Weak technical and logistical structuring of women's organizations -Insufficient financial and material resources
Sustainability/ Impact	Led to several women's organizations getting involved in the effort to tackle climate change Training of women leaders on the effects of climate change on development

CHAD

Initiative/Program	Biosphere and Heritage of Lake Chad (BIOPALT)
Actor(s)	LCBC
External support	UNESCO
Timeframe	2020-2023
Area of responsibility	Province of the lake (sites: spawning ground of Khaya, Wadi of Ndjar and Artomissi)
Beneficiaries	Youth groups; Women's groups; Population of beneficiary sites; and University of Ndjamen
Brief description (100 words)	The BIOPALT project aims to strengthen the capacities of Member States of the LCBC to safeguard and sustainably manage the hydrological, biological and cultural resources of the Lake Chad Basin, in order to contribute to poverty reduction and to promote peace.
Main challenges	-Security issues -Low traceability of assets
Sustainability/ Impact	In one village, a sustainable harvest of spirulina is developed. About 200 women practiced the profession of harvesting and processing Spirulina (<i>Spirulina arthrospira platensis</i>). The restoration of this wadi (river channel) has enabled the return of water to 7 villages and will contribute to social cohesion and peace within local communities.

Initiative/Program	Great Green Wall Project (GGW)
Actor(s)	The National Agency of the Great Green Wall (National Coordination responsible for the implementation and technical execution of activities) - Eco-villages, private providers of technical services, microfinance institutions.
External support	Several technical and financial partners
Timeframe	2007-2030
Area of responsibility	Provinces of Hadjer Lamis, Barh El Ghazal, Batha Ouaddai and Wadi Fira
Beneficiaries	Local populations; Youth and women groups; and Autonomous communities
Brief description (100 words)	The Great Green Wall project (Chad component) aims to combat desertification, the advance of the desert, the ecological degradation of arid and semi-arid regions and the poverty of the populations of these areas through income-generating activities. As part of the continent-wide barrier, Chad aims to plant a 1,000km-long by 15km-wide wall of trees
Main challenges	- Random rainfall that does not favour good agro- sylvo - pastoral production, hence the use of supplementary irrigation systems; - Cyclical droughts resulting in the advance of the desert and the silting up of certain areas; -The appearance of several pockets of glacia whose agricultural development is difficult with the rudimentary means of the peasants -Huge human and pastoral pressure on residual forest resources; -Weakness of the supervision of producers; - The persistence of extensive production systems requiring adjustments; -Insufficient water points; -The high illiteracy rate and the significant rural exodus posing a challenge of availability of people who will effectively nurture the trees.

Sustainability/ Impact

- | |
|---|
| <ul style="list-style-type: none">▫ Effective commencement of the Ndjamenena green belt element▫ Operation Acacia pilot project (PPAO) is underway <p>The national food security program implemented under the program</p> |
|---|
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NIGER

Initiative/Program	Thrift Balls
Actor(s)	International Organisation for Migration (IOM)
External support	
Timeframe	November 2019
Area of responsibility	Commune of Mainé Soroa (Ari Kaouri and Bolori), Commune of Chétimari (Madiane, Chetimari and Chouari), Commune of Diffa (LCBC, Chétimari-Gréma-Artori, Quartier Sabon Carré, Festival, Diffa –Koura, Kayowa and Bagara), Commune of Gueskerou (Gueskerou, Youwa and Teguesssa).Boulangouri and Kangouri in the city of Diffa
Beneficiaries	Some 4756 households targeted as beneficiaries
Brief description (100 words)	The balls are intended first for women and then for men
Main challenges	- How to determine and distribute clothes to those truly in need
Sustainability/ Impact	The distribution of clothes allows all those who have lost everything to be dressed

NIGER

Initiative/Program	Construction of protection dykes
Actor(s)	Military genius, Diffa Town Hall
External support	The Government of Niger
Timeframe	November 2019
Area of responsibility	Boulangouri and Kangouri in the city of Diffa
Beneficiaries	Populations of threatened villages and neighbourhoods in the city of Diffa
Brief description (100 words)	The dykes are a kind of mounds of sand to slow down the progression of flood waters
Main challenges	- The dikes are only effective when the water current is not very strong
Sustainability/ Impact	The dams made in this way are not very durable.

NIGER

Initiative/Program	Distribution of Mosquito nets
Actor(s)	Diffa Governorate
External support	The Government of Niger
Timeframe	2019
Area of responsibility	Commune of Mainé Soroa (Ari Kaouri and Bolori), Commune of Chétimari (Madiane, Chetimari and Chouari), Commune of Diffa (LCBC, Chétimari-Gréma-Artori, Quartier Sabon Carré, Festival, Diffa –Koura, Kayowa and Bagara), Commune of Gueskerou (Gueskerou, Youwa and Teguesssa).
Beneficiaries	4756 Households
Brief description (100 words)	Mosquito nets are very useful for protection against malaria, which kills many children and pregnant women
Main challenges	- Most often the pressing need for cash pushes the beneficiaries to sell these NFIs - The precarious situation pushes some beneficiaries to dispose what they receive in the form of support, even food
Sustainability/ Impact	The perilous situation meant that they will not keep and use the Mosquito nets to prevent malaria

NIGER

Initiative/Program	Shelter Kits
Actor(s)	IOM
External support	The Government of Niger
Timeframe	2019
Area of responsibility	Commune of Mainé Soroa (Ari Kaouri and Bolori), Commune of Chétimari (Madiane, Chetimari and Chouari), Commune of Diffa (LCBC, Chétimari-Gréma-Artori, Quartier Sabon Carré, Festival, Diffa –Koura, Kayowa and Bagara), Commune of Gueskerou (Gueskerou, Youwa and Teguesssa).
Beneficiaries	4756 Households
Brief description (100 words)	The shelter kits are used by households who have left their villages to have the materials (tarpaulins stakes, shelter) to quickly make shelters
Main challenges	- There is the challenge of correctly identifying those truly in need of such assistance
Sustainability/ Impact	The shelter kits provide shelter to the needy, preventing exposure to harsh weather

NIGER

Initiative/Program	Tarps
Actor(s)	IOM
External support	
Timeframe	November 2019
Area of responsibility	Commune of Mainé Soroa (Ari Kaouri and Bolori), Commune of Chétimari (Madiane, Chetimari and Chouari), Commune of Diffa (LCBC, Chétimari-Gréma-Artori, Quartier Sabon Carré, Festival, Diffa –Koura, Kayowa and Bagara), Commune of Gueskerou (Gueskerou, Youwa and Teguesssa).
Beneficiaries	4756 Households
Brief description (100 words)	Tarps are used to make shelters
Main challenges	- Challenge of correctly identifying and distributing clothes to those truly in need of them
Sustainability/ Impact	This provision of tarps has enabled the provision of shelters

NIGER

Initiative/Program	Buckets Mattress Soaps (Unit)
Actor(s)	Diffa Governorate
External support	
Timeframe	November 2019
Area of responsibility	Commune of Mainé Soroa (Ari Kaouri and Bolori), Commune of Chétimari (Madiane, Chetimari and Chouari), Commune of Diffa (LCBC, Chétimari-Gréma-Artori, Quartier Sabon Carré, Festival, Diffa –Koura, Kayowa and Bagara), Commune of Gueskerou (Gueskerou, Youwa and Teguesssa).
Beneficiaries	4756 Households
Brief description (100 words)	They constitute materials of 1st necessities like the NFI
Main challenges	- How to distribute clothes to the truly needy
Sustainability/ Impact	Precariousness pushes the beneficiaries to strip themselves of everything they receive, even food

NIGER

Initiative/Program	Cash
Actor(s)	National Assembly
External support	FCFA
Timeframe	November 2019
Area of responsibility	Commune of Mainé Soroa (Ari Kaouri and Bolori), Commune of Chétimari (Madiane, Chetimari and Chouari), Commune of Diffa (LCBC, Chétimari-Gréma-Artori, Quartier Sabon Carré, Festival, Diffa –Koura, Kayowa and Bagara), Commune of Gueskerou (Gueskerou, Youwa and Teguesssa).
Beneficiaries	4756 Households
Brief description (100 words)	Cash distribution to very vulnerable households
Main challenges	- How to distribute to the truly needy
Sustainability/ Impact	Complaints and/or discontent over nature of cash distribution will impact on trust and sustainability

NIGER

Initiative/Program	Community Action Project for Climate Resilience (PACRC)
Actor(s)	Niger Government
External support	World Bank
Timeframe	From 2012
Area of responsibility	Diffa
Beneficiaries	Diffa and other communities in the country
Brief description (100 words)	Help in managing landscapes- cropland, livestock, forests and fisheries- that address the interlinked challenges of food security and climate change. It is primarily aimed at increased productivity, enhanced resilience and reduced greenhouse gas emissions.
Main challenges	- Incidence of poverty - Population growth, - Malnutrition, and - Limited access to basic social services
Sustainability/ Impact	This will help to improve the resilience of the populations and of production systems to climate change and variability in targeted Communes.

NIGER

Initiative/Program	Rice Mil
Actor(s)	Niger Government
External support	
Timeframe	From July 22 to October 4, 2022
Area of responsibility	Selected Municipalities (Diffa, Goudoumaria, Maine Soroa, Bosso, Chétimari) and Commune of N'Guigmi
Beneficiaries	Affected households
Brief description (100 words)	This programme involves food distribution by the government to population in urgent need. It is part of a national intervention mechanisms in the event of emergencies involving the free distributions of food and sometimes the sale of food at moderate prices to cushion the effects of such shocks. The food distribution comes from a “security stock. The security stock is constituted during the harvest period to prepare for emergency situations requiring a rapid response through the distribution of food.
Main challenges	Quite often there is the challenge of identifying those who are the most vulnerable in times of emergency
Sustainability/ Impact	Most often there are complaints or discontent over the manner of distribution of the food.

NIGER

Initiative/Program	Reinforcement of dykes to protect homes and fields against flooding through the distribution of empty bags to be filled with sand and piled up
Actor(s)	Mayor of the Urban Commune of Diffa, Regional Crisis and Disaster Management Committee, Regional Council, A national of Chetimari, Director of Rural Engineering, SP CRA and MAH/GC Focal Point in Chétimari, Diffa traders
External support	
Timeframe	November 2019
Area of responsibility	Commune of Mainé Soroa (Ari Kaouri and Bolori), Commune of Chétimari (Madiane, Chetimari and Chouari), Commune of Diffa (LCBC, Chétimari-Gréma-Artori, Quartier Sabon Carré, Festival, Diffa –Koura, Kayowa and Bagara), Commune of Gueskerou (Gueskerou, Youwa and Tegoussa).
Beneficiaries	Some 4756 households and 29,948 People were targeted beneficiaries.
Brief description (100 words)	The empty bags will be used to fill them with sand to pile them on top of each other in order to constitute and/or reinforce the dykes for the protection of dwellings and crop fields
Main challenges	- The dykes made in this way are not very durable because after the flooding and with the sunshine, the bags tear and let the sand escape. event of a threat of flooding.
Sustainability/ Impact	Led to temporary protection of dwellings and crop fields Because the dykes are not permanent, the level of protection is fragile. The result is a repeat of same intervention each successive year

NIGERIA

Initiative/Program	The Great Green Wall (GGW) Project in Nigeria
Actor(s)	Head of governments of states of the African Union
External support	AU, UNEP, UN REDD, FAO, UNDP, National Capital Coalition, Convention on Biological Diversity, Statistical Division
Timeframe	2007-2030
Area of responsibility	Adamawa, Bauchi, Borno, Gombe, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara states
Beneficiaries	Nigeria's component of the project encompasses the 11 frontline states of Adamawa, Bauchi, Borno, Gombe, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara. It seeks to address desertification threatening the livelihoods of over 50 million people in these States
Brief description (100 words)	Nigeria's component of the project aims to address desertification, land degradation and biodiversity loss. The northern states have the responsibility to restore degraded land, improve the availability of environmental resources and contribute to the country's carbon capture and storage.
Main challenges	- Difficulty on the part of the Nigerian government to appropriate and release funds for addressing environmental issues. - Although the Nigerian government reportedly commits 15% of its Ecological Fund to the GGW Initiative, misappropriation or embezzlement of funds do occur
Sustainability/ Impact	Contributes to climate resilience by combating climate change and desertification Promote food security for the millions living in precarious condition Support economic opportunities for the world's youngest population as well as address poverty. Improved livelihood opportunities are expected to partly address the perennial violence between nomadic herders and farming communities.

NIGERIA

Initiative/Program	Humanitarian Response Plan
Actor(s)	Governments of Borno, Adamawa and Yobe (BAY) States
External support	Food and Agricultural Organisation
Timeframe	January-December 2020
Area of responsibility	BAY States
Beneficiaries	1.1 million women and children in the BAY States in need of nutrition
Brief description (100 words)	The programme is agricultural support initiative in intended to increase food security among conflict-affected households by providing a key source of food and income. With agriculture being the main source of food and income in the North-East, diversifying agricultural livelihood opportunities for vulnerable households, with an emphasis on women and youth, is central to prevent a further increase in food insecurity
Main challenges	- Absence or limited collaboration between the private sector and government hampers the project sustainability -Difficulty of farmers in accessing timely weather information which will improve crop production.
Sustainability/ Impact	The project promoted adoption of climate smart agriculture techniques in conflict-affected states of Adamawa, Borno and Yobe to make livelihoods of farmers more sustainable in the face of changing climate. The initiative helped the farmers to link early warning triggers to early action, as heeding early warning signals make the difference between a crisis and a catastrophe, especially for small scale producers. Collaboration or synergy between the private sector and government could enhance project's sustainability, further improving access to modern farming initiatives and climate smart agriculture generally

NIGERIA

Initiative/Program	The Lake Chad Replenishment (Transaqua) Project
Actor(s)	Lake Chad Basin International Commission
External support	Adb, Islamic Development Bank
Timeframe	2018
Area of responsibility	Lake Chad Basin
Beneficiaries	Cameroon, Chad, CAR, Niger, Nigeria,
Brief description (100 words)	An inter-basin water transfer proposal to channel water from the Ubangi river in the Democratic Republic of Congo (DRC) to the Chari River system that feeds Lake Chad. It is expected to recharge the lake and protect it from some of the effects of climate change
Main challenges	The project runs contrary to recent hydrological findings that suggested the lake is not actually shrinking. - Opposition from a segment of DRC government and civil society - Insufficient emphasis on addressing decades of poor governance and resource misuse
Sustainability/ Impact	The project is expected to keep local industries buoyant and address some of the wider socio-economic enablers of conflict in the region

NIGERIA

Initiative/Program	National Livestock Transformation Plan (NLTP)
Actor(s)	Federal Government of Nigeria
External support	NIL
Timeframe	2018-2027
Area of responsibility	Country wide
Beneficiaries	Livestock sub-sector (producers in the livestock value chain)
Brief description (100 words)	The NLTP was adopted as a comprehensive national strategy for transforming the Nigerian livestock sub-sector to provide the framework to sedentize the transhumance-pastoralist, meet the animal protein needs of the teeming populace, provide jobs and reduce the massive importation of animal-based foods into Nigeria.
Main challenges	Absence of clear funding framework coupled with infrequent collaboration with the Department of Animal Husbandry Services (DAHS) on implementation of NLTP programmes and projects for sustainable investment by the private sector. of Nigerians.
Sustainability/ Impact	Outcomes/recommendations from the NLTP will guide the Federal Ministry of Agriculture and Rural Development on how to create synergy among the stakeholders to pave the way for a successful and speedy transformation of the Livestock sub-sector. Specifically, the Ministry would have blueprints on how to address problems of low breed quality, poor animal husbandry practices, limited access to quality inputs and finance, weak animal health and extension service delivery, livestock herder and crop farmer conflicts, cattle rustling, banditry and other security challenges facing Nigeria's livestock industry.

NIGERIA

Initiative/Program	State Level Project Socialisation on Livestock Productivity and Resilience Support Project (L-PRES)
Actor(s)	Federal Government of Nigeria
External support	The World Bank
Timeframe	2019-2025
Area of responsibility	Country wide
Beneficiaries	Stakeholders in the agriculture sector
Brief description (100 words)	A project to support the update of the NLTP. The L-PRES program is a project aimed at addressing the low profile of lifetime investment in the subsector to improve livestock productivity, resilience and commercialization of selected value chains, as well as strengthen the country's capacity to respond to crisis or emergency.
Main challenges	- Absence of blueprints on how L-PRES should complement the Ministry of Agriculture's efforts in the livestock sector, especially since it is set to provide financing for explicitly mainstreaming climate change adaptation and mitigation objectives across all relevant policies and strategies, including the Livestock Master Plan (LMP), the NLTP, and the National Agriculture Transformation Innovation Policy (NATIP).
Sustainability/ Impact	To support resilience and productivity in the livestock sector. It would also facilitate food security and reduce incessant conflicts between farmers and herders.

NIGERIA

Initiative/Program	Conference on “Saving the Lake Chad to revitalize the Basin's ecosystem for sustainable livelihood, security and development,”
Actor(s)	Federal Ministry of Water Resources, Nigeria
External support	The United Nations Educational, Scientific and Cultural Organisation, (UNESCO), the Lake Chad Basin Commission (LCBC) and relevant donors including, prospectively, the African Development Bank (AfDB) the World Bank and the governments of Germany, China, Canada and the European Union (EU).
Timeframe	Conference was held in February 26-28 2018
Area of responsibility	Nigeria, Niger, Chad, Cameroon, Central African Republic and Libya.
Beneficiaries	Nigeria, Niger, Chad, Cameroon, Central African Republic and Libya.
Brief description (100 words)	The conference presented options to address the lake's diminishing water levels. The main objective of the international conference was to create global awareness on the socio-economic and environmental challenges arising from the shrinkage of the Lake Chad, threat to livelihoods including insecurity with a view to developing a comprehensive program for action to save the lake from extinction
Main challenges	- The Conference expected to garner political and financial support for the restoration option identified for the Lake Chad. This objective has not been significantly achieved, as efforts (regional and otherwise) to restore the Lake are few and far between.
Sustainability/ Impact	Among the outcomes of the conference was a roadmap for the implementation of the recommendations of the conference that should lead to the restoration of the lake; restoration of fishing and irrigated farming as a way of alleviating poverty, strengthening climate resilience in the basin, creating employment, leading to reduction of terrorist activities and increasing the revenue of the population and that of the Lake Chad basin countries

NIGERIA

Initiative/Program	Planting trees to combat climate change
Actor(s)	Borno Geographic Information Service, Ministry of Environment, Ministry of Reconstruction, Rehabilitation and Settlement
External support	Christian Aid (CAID) and World Food Programme (WFP)
Timeframe	September 2022
Area of responsibility	Borno State
Beneficiaries	Borno State indigenes and neighbouring areas
Brief description (100 words)	Launched an initiative to plant 100,000 tree seedlings within Maiduguri and nearby areas. Tree seedlings help meet the nutritional, economic and medicinal needs of local households
Main challenges	- Lack of continuity and upscale of the project.
Sustainability/ Impact	- Planting of 480,000 tree seedlings across Borno State

NIGERIA

Initiative/Program	WFP scaled-up lean season
Actor(s)	World Food Programme
External support	
Timeframe	September 2022
Area of responsibility	BAY States
Beneficiaries	WFP reached 1,537,868 people with unconditional resource transfers for crisis response in September 2022 across Borno, Adamawa, and Yobe States of the northeast. Through purchase of locally procured food items, WFP is supporting local farmers by distributing 10,689 mt of in-kind food and providing USD 11.84 million cash-based transfers redeemed at nearly 200 WFP-contracted retail outlets.
Brief description (100 words)	The project was an assistance to reach 1,618,018 people through unconditional assistance, nutrition and livelihood assistance, and multi-sectoral nutrition using additional resources received for WFP's multi-donor response supporting vulnerable people in northeast Nigeria.
Main challenges	- Due to resource scarcity, WFP plans to scale down crisis response to average 1.2 million a month during the last quarter of 2022. - More contributions will be required to assist the entire 1.7 million of the 4.1 million food-insecure people in the northeast that need WFP humanitarian assistance. - Fragility or collapse of infrastructure such as road and bridge caused by heavy flooding across the northeast hampered delivery
Sustainability/ Impact	In Borno, food prepositioned by WFP reached 7,173 newly displaced people fleeing hard-to-reach areas experiencing secondary displacement. The WFP provided 616 mt of specialised nutritious food to

NIGERIA

Sustainability/ Impact	218,598 children aged 6-59 months and pregnant and lactating women. Due to poor road access and bridge collapses caused by heavy flooding across the northeast, WFP reached just 84 percent of the 259,461 beneficiaries that were planned for September 2022.

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