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STUDENT REPORT

**Climate Change, Youth and Conflict in the
Lake Chad Basin:
Understanding the ‘ingredients’ for a
presaged humanitarian crisis**

MSc in International Relations and Development,
specialization in Global Refugee Studies

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ABSTRACT

This thesis investigates the impact of climate change on the conflict in the Lake Chad Basin, focusing in particular on the role played by the youth in Far-North Cameroon. With this intent it will be examined and analysed how climate change can represent a threat multiplier in that area. This will highlight how climate change effects can contribute to exacerbating a vicious cycle made out of conflict, scarce natural resources and limited youth's agency.

The time frame taken into account to examine the climatic variations of the Lake Chad Basin, will span between the second half of the last century and the contemporary days. In fact, in order to understand how climate change became an important factor of increasing tensions in this area, it is important to look at a wider temporal perspective. Moreover, the research strategy the development of this dissertation will consist of a mix-method approach, based on the combination of quantitative data and three qualitative interviews.

Data were collected in two different ways, in relation to their nature. In fact, for the quantitative data on the environmental changes in the Lake Chad Basin, published reports, scientific papers and researches were taken into account. Regarding the qualitative data, three semi-structured interviews represented the main sources in order to gather the perspective of experts, who worked in the environmental sector and lived in the interested area.

This paper attempts to challenge the assumption of certain researches that focused on the dynamics of conflict and its relations with youth, neglecting the variable of climate change. As this thesis will highlight, in the context of the Lake Chad region and in particular in the Far- North Cameroon, these variables appear interconnected. The main findings of this thesis suggest that it is unproductive to look at such variables separately. In fact, we should look at the relations between climate change, conflict and youth agency as three elements which together may lead to a worse humanitarian crisis than the one already ongoing.

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This thesis is dedicated to Jana Krause. She was a colleague, a friend, and a sister to us. She could not finish this path with us, but we would have never made it without her. Her spirit guided us through every word and thought. We will never stop feeling grateful for the chance we had to get to know her.

Jana has been a source of inspiration and enlightenment for our thesis. We like to imagine that she was writing it with us.

ABBREVIATIONS

BYA = Borno, Yobe, Adamawa States of Nigeria

CBLT = *Commission du Bassin du Lac Tchad*

LCBC = Lake Chad Basin Commission

IDP = Internally Displaced Person

JAS = *Jama'atu Ahlis Sunnah Lida'awati Wal Jihad* ('People Committed to the Propagation of the Prophet's Teachings and Jihad')

LCB = Lake Chad Basin

MNJTF = Multi-National Joint Task Force

NASA = National Aeronautics and Space Administration

NGO = Non-Governmental Organization

NSAG = Non-State Armed Groups

SSI = Semi-Structured Interview

SST = Sea Surface Temperatures

UNHCR = United Nations High Commissioner for Refugees

VoIP = Voice over Internet Protocol

WHO = World Health Organization

COVID-19= Corona Virus Disease - 2019

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INTRODUCTION

Throughout the past decade, a growing number of states, together with the UN, the EU, and the G7, have declared climate change to be a threat to global and/or national security (American Security Project, 2014; European Commission, 2008; UN Security Council, 2011). However, severely impacting effects of climate change in the European continent will more likely appear in a relatively close future, whereas in other areas of the world, this issue is already impacting people's everyday life. This does not mean that the consequences will not eventually affect every population on the planet. It is important to realize that climate change is not just about the future of humanity, it is about the present as well. For many poorer countries of South Asia, Central America and Africa it is not a matter of economy nor power, but rather of survival of hundreds of thousands of people. Africa, for example, emits just 2 to 3% of the world's carbon dioxide emissions, but it remains the most vulnerable continent in the face of global warming (UN Climate Change Conference in Nairobi, 2006). The locals inhabiting these areas were asked to deal not only with sporadic catastrophic events linked to the changing climate, but also with slow on-set degradation of their territory, and to face major damages to their livelihoods and economy.

Disastrous calamities, such as hurricanes or earthquakes, are the events that shock the most, together with the outbreak of new wars. Though, in a world where information has to be more and more short and catchy to the eye in order to receive a minimum of attention, a country stormed by bombs and violence is a much more compelling image than a country that is suffering from desertification. However, in certain contexts, droughts and floods reached the same degree of destruction as wars: entire villages, fields and cattle were devastated and lost, leaving no perspectives for a future. Nonetheless, it is quite a complex and time-consuming process to accord protection and rights, based solely on unpredictable climate change causes and not on direct men-driven wreckage. This is potentially another reason, why the International community has not yet produced enough legal instruments¹ to give climate migrants proper recognition (Atapattu, 2018).

¹ The 1951 Geneva Refugee Convention does not include any section related to environmental refugees fleeing from natural disasters, therefore the term "Climate refugee" is yet to receive any recognition in International Law. Also, many climate change-

Despite the difficulties in developing evidence within the field of jurisprudence, academia and policymakers have started to acknowledge the importance of agreeing on the role of climate change in their risk assessment reports. Regions subject to volatile socio-political contexts, where armed conflicts are very likely to explode or have already been raging for some time, are not immune to the negative influence of a degrading environment as well. In other words, climate change can acquire the power to influence not only our biosphere, but also our economic and socio-political systems, intensifying the gravity of the problems that characterize our reality, until making it impossible to find a peaceful solution to them. A chain of reactions and situations can be triggered, so that multiple tensions erupt into open violence. Though, only very recently the hypothesis of addressing climate change as an aggravating factor for the outbreak of conflicts has received some well-deserved attention. The purpose of this research is thus to shed more light on the nuances of this assumption, reconsidering the significant role of climate change as a source of tensions. The two researchers Nett and Rüttinger stated in the Climate Diplomacy report for the German thinktank Adelphi in 2016, that “the links between climate change, conflict and fragility are not simple and linear” (Nett & Rüttinger, 2016: 8). Despite that, there is an increasing need to produce related studies, to avoid making irredeemable mistakes that might preclude future major improvements in the process of development of numerous countries.

This dissertation will especially treat the ways the impacts of climate change are interconnected and play a role into the surge and perseveration of armed conflicts and violence. In particular, the case of the Sahelian region of the Lake Chad will represent our empirical target and focal point to investigate the correlation between these two phenomena and the local society. In 2019, the non-governmental organization CARE International classified the humanitarian crisis in this region as one of the ten most under-reported of the year (CARE International, 2019: 15). The motivations that convinced us to take this particular territory into consideration were various: the lack of sufficient literature concerning the above-mentioned problematic, applied to the Western-Central Sahel; its too-often ignored potential for an escalation of events into a worse humanitarian crisis, than the one already

induced migration flows happen within a country’s border, keeping all internally displaced people under national jurisdiction.

ongoing; the accessibility of materials and the coherence of the local situation with our studies and interests.

Since 2014, the conflict against the Nigerian non-state armed group Boko Haram, a local Islamist extremist movement, obtained an international connotation and began to carry out its terrorist operations in all States bordering the Lake Chad: Nigeria, Cameroon, Chad and Niger (Magrin & De Montclos, 2018: 124). At the same time, climatic shifts in the seasonal rains and the unusual rise of temperatures contributed to create the circumstances for 10.7 million of people, out of the 17.4 million living in the region, to need humanitarian assistance (Climate Home News, 2019). Such destabilizers acting upon the same population boosted their already fragile conditions, preventing them to be sufficiently resilient and re-adapt to any kind of suffered grievance. Understanding the way youth is positioned in this crisis is the key to understand the future of this region. This is why it is fundamental to look at how they cope and find dignity by taking the opportunities their environment can offer.

In the country of Cameroon, according to the 2019 Demographics Profile edited by Index Mundi, around 60% of its population was below 25 years-old (Index Mundi, 2019). Thus, tracing back the roots of lake Chad's multifaceted crisis and the role of the local young population experiencing it, is a pivotal step to establish a common ground of knowledge for further research.

Problem definition

Our focus will therefore lie on the answer to the following research question:

In which ways climate change affects, amongst other things, the conflict in the Lake Chad Basin and which is the role of youth in this 'crisis trap' in the Far-North Cameroon?

Thesis structure

The structure of our paper will include a first section composed of an exposition of our methodological choices of material and techniques of research, in order to clearly state the approach of our work. A mixed method will be implemented combining quantitative data, assembled throughout document analysis and qualitative data, collected through interviews. Going deeper into the theme of this study, we will briefly present the context of it, starting from the explanation of

climate variability, intended as a risk factor for armed conflict (Nature, 2019). Furthermore, an overview of the climatic features and variations of the sub-Saharan territory called ‘Sahel’ will be presented to generally point out the environmental challenges belonging to that geographical area, influencing the life of the local population. An insight of the socio-political and economical frame of these communities will be generally described; particular attention will be given to their role in the process of deterioration of their land, and consequently, of their livelihoods and relations with each other. In this way, it will be possible to collect enough background information before approaching the core of our research.

The following chapter will be primarily dedicated to the data correlation between climate variations and the lake Chad size evolution over the past 50 years. The people’s livelihoods and methods of adaptation will also be part of our focus, with particular attention to the Far-North Cameroon. Both socio-economic and political perspectives will be taken into consideration, to investigate how the Sahelian societies evolved together with the environment.

A focus on Boko Haram’s rise, identity and strategies of recruitment will introduce the reader to the origins and dynamics of the ongoing war in the region. This way, it will be easier to identify the pressure they exercised, together with the climatic variations, on the youth of the Far-North. Their role in the crisis will be better grasped after the exposition of a theoretical framework built around the works of Anthony Giddens and Henrik Vigh. Concepts such as *structure*, *agency* and *social navigation* will complete the scope of the theoretical chapter.

Young Cameroonians attempt to exercise their agency, in spite of the high vulnerability and uncertainty defining their reality. This conduct will be analysed to substantiate the assumption of a self-fuelled, exasperated conflict, also by the effects of climate change. It will be later combined with the qualitative data collected during the interviews. These will also be employed to substantiate the quantitative data interpreted in the first section of this paper.

To conclude, through the examination of the main findings, the researchers will highlight potential starting points for future research, to support academic reports and new stakeholder strategies. This contribution might help the Lake Chad region’s many-sided crisis to move from a situation of a potentially bigger conflict, to a potential of cooperation, resilience and development.

METHODOLOGICAL CONSIDERATIONS

In order to investigate the climate change impact and its consequences on the increasing tensions in the Far-North, the northernmost region of Cameroon, we used a mixed method approach, which combines both quantitative and qualitative data. This means employing different sources, with the purpose to study the same phenomenon. This is important not only to answer our research question, but also to be able to combine data on the environmental consequences of climate change and the qualitative data collected through the interviews. The choice of proceeding in this way was made to build a clearer and comprehensive picture, to understand the impact of climate change on the local population, which, according to our inquiry, increases the probability of and exacerbates conflicts.

The ‘mixed method’ approach

In their book ‘Designing and Conducting Mixed Methods Research’, professors Creswell and Clark gave multiple definitions to what a mixed method research is. In particular, a couple of them caught our attention. The first one, quoting Johnson et al. (2007),

“Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the purposes of breadth and depth of understanding and corroboration” (:123).

In this definition it is evident that the purpose of designing such a method is to use different data to analyse multiple variables, some expressed in numbers, some expressed through concepts and witnesses, all essential to investigate our research question. In fact, an important factor necessary to justify the use of a mixed method approach is the object of the research, highlighted by the research question. Following Creswell and Clark,

“What situations, then, warrant an approach that combines quantitative and qualitative research—a mixed methods inquiry? In general, research problems suited for mixed methods are those in which one data source may be insufficient. Further, results often need to be explained, exploratory findings

need to be generalized, a primary experimental design needs to be expanded or enhanced, multiple cases need to be compared or contrasted, the participants need to be involved in the research, and/or a program needs to be evaluated.”(Creswell & Clark, 2007: 41).

Creswell and Clark support a mixed method approach when the object or objects of a research require data and information accessible through both quantitative and qualitative data collection. As it is described in the introduction, our research question requires quantitative data to understand the general trend of the effects of climate change, like droughts, rise of temperatures, decrease of water resources. These data are not sufficient to understand how those variables affected the conflict in the Lake Chad Basin, and cannot calculate how climate change increased the power of Boko Haram in the region. To do so, it is essential to adopt a qualitative approach through interviews, in order to investigate on how the quantitative data are linked to and affected the local population.

Data collection

The data used for this research did not focus on the whole country of Cameroon, but only on the region in which the researchers' interest lied on, the Far-North. The data are a combination of primary and secondary sources. The intention was to collect primary sources through interviews and secondary sources through papers and reports from international organizations and institutions that monitor climate change and its effects. Due to this double nature of data sources, it seemed appropriate to apply different tools. Regarding the primary sources, we collected them developing a questionnaire, pertinent with the targets of our interviews. The questionnaire was built on the model of semi-structured interview.

Interviewing experts also working for the Lake Chad Basin Commission (LCBC) had the purpose to identify the general frame of climate change effects on the region. The experts that were interviewed, provided updated reports, climate trends, qualitative data on the affected population, effects of climate change on the natural sources, long-term consequences on the population and how they move in space. Their statements were also useful in order to get possible plans of action for policymakers of the area.

In particular, the experts taken into consideration for the qualitative interview were Hycinth Banseka, Aminu Magaji Bala and Aboukar Mahamat Liman. Mr. Banseka is an Environmental and Agriculture Engineer and he is working for both the Global Water Partnership² and the Regional Network of Central Africa, as the regional coordinator in water management, supervising seven different countries. Mr. Bala is an environmentalist expert. He has a master's degree in Biodiversity Conservation. He has been working for the LCBC since 2010. More specifically he is a member of the Ecosystem group Commission³ and he is in charge of Wet Land Management. Mr. Mahamat is an expert in international cooperation and development, with focus on the environmental education. He also founded a local association named ACEEN (Alliance Citoyenne pour le Développement et l'Education à l'Environnement) in 2006, with the office in Maroua. Moreover, Mahamat is also Director since 2006 of the Cameroon Office of a Suisse NGO International Project Aid.

It is important to precise that one of the three experts the researchers planned to interview is French speaking. This aspect represented a challenge for the researchers, however, one of them mastered the language and therefore guided and transcribed the interview. Thanks to that, the researchers were also able to employ French sources, accessing to a wider range of data. Since all three selected interlocutors work in the area of environmental management in an African context, their knowledge was deemed as relevant for the study. Their availability was an opportunity to get access to the local expertise that would otherwise not be found in the literature.

Regarding the quantitative data related to the environmental and climate change effects, this research focuses on three main elements in the Lake Chad Basin: rising temperatures, droughts, and soil erosion, and shrinking lake waters. In this regard, it is essential to clarify that the researchers do not have an environmental nor meteorological educational background. For those reasons we acknowledge our reduced competence in understanding the instruments and tools behind the collection and measurement of certain quantitative data. They were gathered through

² Global Water Partnership (2020).

³ Lake Chad Basin Commission (2020). Ecosystem and biodiversity of the Lake Chad Basin.

secondary sources, corroborated by academic researches of the field, scientific papers, surveys institutions, both from Cameroon and internationally, and reports by NGOs and governmental organizations. The main ones were provided by the Lake Chad Basin Commission (CBLT), the report ‘Climate - Fragility Risk Profile: Lake Chad Basin’⁴ produced by Adelphi, ‘The Lake Chad hydrology under current climate change’⁵ published by Scientific Report and ‘Climate as a risk factor for armed conflict’⁶ distributed by Nature. These reports give an in-depth view of the climate change effects on the environmental landscape investigated in this paper.

Collecting qualitative data:

Semi-structured interview (SSI) and the advantage of VoIP technology

In order to collect qualitative data, the researchers chose to develop a questionnaire (see Annex 1) with open questions around different topics in the context of the research. Due to the multiple objects of study, the researchers set a series of questions related to the issues at the core of the research, such as the impact of climate change, the conflict in the LCB and the youth in the context of the Far-North Cameroon. In order to receive a spontaneous response from the selected experts, the researchers decided to conduct Semi-Structured Interviews.

The first reason, why the researchers made this choice is related to the methodological nature of this research, which is based on mixed methods. In the ‘Handbook of practical Program Evaluation’ written by Kathryn Newcomer, Harry Hatry, Joseph Wholey, and William Adam, it is stated, that “In mixed methods research, semi-structured interviews can be useful as an adjunct to supplement and add depth to other approaches. For example: [...] If you want to explore ‘puzzles’ that emerge (or remain) after you have analysed survey or even focus group finding.” (Newcomer et al., 2015 : 494). In the specific case of this research, there were no

⁴ Nagarajan, C., Pohl, B., Rüttinger, L., Sylvestre, F., Vivekananda, J., Wall, M., & Wolfmaier, S. (2018). “Climate-fragility profile: Lake Chad basin”. *Berlin: Adelphi*.

⁵ Pham-Duc, B., Sylvestre, F., Papa, F. et al. (2020). “The Lake Chad hydrology under current climate change”. *Scientific Reports* 10, 5498.

⁶ Mach, K. J., Kraan, C. M., Adger, W. N., Buhaug, H., Burke, M., Fearon, J. D., Field, C. B., Hendrix, C. S., Maystadt, J-F. O’loughlin, J., Roessler, P., Scheffran, J., Schultz, K. A., & von Uexkull, N. (2019). “Climate as a risk factor for armed conflict”. *Nature*, 571(7764), 193-197.

focus group findings, because the priority was given to a discreet amount of quantitative data on the impact of climate change in the lake Chad region. Moreover, the interest of understanding how those numbers affected the context, stimulated the researchers in gathering qualitative data. Another reason derived from the type of questions produced, was that “[...] the SSI employs a blend of closed- and open-ended questions, often accompanied by follow-up why or how questions.” (Ibid.: 493). The researchers decided to use this kind of interviews for the nature of the questions, which were taking into account several aspects, regarding climate variability, conflict, and youth. Thanks to that, the researchers had the chance to deeply understand the perspective of the interviewees.

It is important to highlight that once the researchers conducted the interviews with the three experts mentioned in the above section, they did not transcribe them ‘word by word’, but rather followed the model of editing transcription. This meant that the researchers directly extrapolated the discourse of the respondent with similar words, trying to maintain their meaning unvaried. In this process considerable attention was paid to not manipulate the content of the answers. These transcriptions are attached together with the audio files available for the reader for consultation.

VoIP technology, Skype and Zoom

The word VoIP, ‘Vocal Over Internet Protocol’, “[...] is a system which provides users with a way to send voice and video across the internet via a synchronous (real-time) connection.” (Lo Iacono et al., 2016: 1).

The unexpected circumstances under the coronavirus crisis impeded one of the researchers to conduct qualitative interviews in the field; therefore, the interviews had to be conducted online, through VoIP technology, such as Skype and Zoom. Thanks to this technology the researchers were able to make three interviews in two weeks with the experts named above. The reasons why two different VoIP technologies were employed were the availability and the preference in using them by our interviewees. In the article ‘Skype as a Tool for Qualitative Research Interviews’ the author discusses about the possibility of applying different digital tools, with a particular focus on the use of Skype as a qualitative research tool: “[This]means that researchers can widen the range of their sample, by connecting

with participants from all over the world and a wide range of cultures, breaking down the barrier of ‘time and space’” (Lo Iacono et al., 2016 : 6).

The chance of communicating with people all around the world in every moment expands abilities of the researchers in an easily accessible way: “The ability to record audio and video at the same time, without the need for additional equipment, is a particularly important advantage of Skype” (Lo Iacono et al., 2016: 3). Moreover, VoIP tools, such as Skype, “[...] involve participants wherever they are in the world. [...]make research more democratic [,] cover the areas of the rapport and nonverbal cues.” (Ibid.). In other words, they are simple to access and inclusive (for those who have internet connections), as well as not neglecting the possibility to enter in good contact with the interviewee. This, in turn, allows the researcher to monitor the gestures and physical attitudes of the person interviewed, improving the general perception of the person. In fact, “Thanks to Skype, we were able to get a wide perspective over the phenomenon [...]” (Ibid.: 5). The last main reason why the researchers valued the chance of using this tool was the reduced environmental impact: “Another consideration that helps justify the use of Skype is to build in more sustainability to the research process by limiting the pollution caused by means of transportation to interview.” (Ibid.: 19).

Apart from Skype, the researchers used another VoIP technology, called Zoom. The latter consists of “[...] a collaborative, cloud-based videoconferencing service offering features including online meetings, group messaging services, and secure recording of sessions” (Zoom Video Communications Inc., 2016) (Archibald et al., 2019 : 2). The use of Zoom is justified by the explicit request of two of the three interviewees. Even if Zoom works with the same technology as Skype, there are some differences in terms of setting and security. As it is explained here,

“[a] key advantage of Zoom is its ability to securely record and store sessions without recourse to third-party software. This feature is particularly important in research where the protection of highly sensitive data is required. Other important security features include user-specific authentication, real-time encryption of meetings, and the ability to backup recordings to online remote server networks (‘the cloud’) or local drives [...]” (Ibid.: 2).

It is fundamental to be aware of the sensitivity deriving from the type of interview chosen, the meeting or any VoIP interaction. Besides, Zoom’s settings

grant a high level of security: “Researchers’ and participants’ general satisfaction with Zoom was a promising indication of its suitability as a qualitative data collection tool that may complement or extend qualitative researchers’ existing methodological options.” (Ibid. : 5). In conclusion, this tool to conduct an interview can be considered good to avoid compromising the quality of the data.

Limitations

In this subchapter the researchers would like to explain how they faced a series of obstacles, which limited their capabilities to collect qualitative data. Since the beginning of the research process, one of the researchers planned to travel to Cameroon, to conduct interviews in the city of Maroua (Far-North region), in order to collect information on the local population. In particular, the intent of the researchers was first to interview the most affected people from the conflict raging in that area. Secondly, this strategy would have complemented the quantitative data with some more qualitative material on climate change consequences on the locals.

The global spread of the COVID-19 virus, recognised from the WHO as a pandemic (BBC, 2020), forced the researchers to change their research process. In fact, first Italy and then Denmark, closed their borders, imposing a lock-down to safeguard public health, and national security (Metro, 2020). As a consequence, the researchers were unable to keep the program of traveling to Cameroon. They therefore decided to look at different alternatives in order to maintain the chance, as far as possible, to answer the research question, while reflecting on how to deal with the impossibility of collecting qualitative data in person.

In this paragraph, some limitations related to the use of SSI questionnaire, Skype and Zoom are depicted. One of the negative aspects of the SSI is highlighted in the ‘Handbook of practical programme evaluation’, where it is written that: “SSIs are time-consuming, labor intensive, and require interviewer sophistication. [moreover] Interviewers need to be [...] knowledgeable about a relevant substantive issues.” (Newcomer et al., 2015 : 493). This type of interview requires a lot of preliminary work in elaborating the questions, clustering them by the topic the researchers want to investigate, etc. Furthermore, SSI is also challenging once the researchers collected the data, in fact: “SSIs usually entail the arduous task of analysing a huge volume of notes and sometimes many hours of transcripts.” (Ibid.:

493). The time and the effort required in order to transcribe the interviews is intense, therefore only parts of it were transcribed, while making sure not to affect the quality of the data.

Considering the limitations of VoIP technology, it is important to highlight, that: “Many communities and peoples worldwide still lack access to the internet [...]” (Lo Iacono, Symonds, & Brown, 2016 : 9). In certain contexts, a good connection is not widely accessible. In the case of this research, the researchers planned to have many more interviews in order to corroborate their qualitative data. Unfortunately, only the three experts taken into consideration were able to give the researchers their availability. In fact, the plan to also interview members of local community in Maroua failed, due to the lack of access to internet of most of the community members.

Another limit taken into account was the physical distance and as a consequence, the awareness around the fact that in “[...] telephone and Skype interviews...something of the rapport and richness of the interaction may be lost.” (Lo Iacono et al., 2016 : 11). Even if, as it has been highlighted above, tools as Skype or Zoom provide a clear interaction, the physical distance is still an issue for the interviewers, making it hard to catch all the variables influencing the interviewee at the moment. In using Zoom in their research, Mandy Archibald et al. underlined the “issues associated with establishing call connection and audio or video reliability and quality. [...] Typical technical difficulties included low Internet bandwidth, outdated hardware, or limited webcam and/or microphone functionality.” (Archibald et al., 2019: 4/5). The above-mentioned technical issues were also experienced by the researchers of this paper. In fact, even if both Skype and Zoom allowed the researchers to have a proper conversation, some connection problems were met, which required a higher level of attention in a second phase of data collecting to not compromise the reliability of the data.

CONTEXTUALIZATION

In the following paragraphs, we intend to describe the background that surrounds the focus of our study: starting from the Stanford study that reunited as a single voice the assessments of several experts, who produced scientific literature on the matter, we would like to emphasize the coherence in correlating the climate with violent conflicts; the following sections will enhance the specificity of the geographical area we have chosen and its climatic changes; the population living in the Sahel region and the political and economic implications connected to their society will be subject to a general introduction too. By following this logic, the characteristics of the intricate setting we selected will become easier to grasp.

Climate Change: A Driver To Violent Conflict

Until a few years ago, violent conflict and climate change were two phenomena approached by completely separate disciplines, such as political science and environmental studies; therefore, when the concerns on the presence of an actual relation of causality between the two increased, an initial wave of scepticism was generated. This, nevertheless, did not discourage academia to investigate the possibility. As it has been briefly mentioned in the Introduction to this dissertation, variations to traditional climate trends have been openly recognized by some experts, such as the director of the Stanford Environment Assessment Facility Katharine Mach, as elements of distress that induced tension or worsened already ongoing struggles within communities that happened to share the same territory (Ryan, 2019). Though, the problem of a still low tendency to address the knowledge gap related to this topic persists, justifying why there has not been enough theoretical and empirical research yet to satisfactorily cover the matter. For instance, the UNHCR study of 2018 focusing on the examination of legal considerations on refugee international protection, defines the context of cross-border movements as an ensemble of ‘nexus dynamics’: according to the author Sanjula Weerasinghe, a UNHCR consultant, this term includes all situations where conflict and/or violence and disaster and/or adverse effects of climate change exist in a country of origin (Weerasinghe, 2018: 19). However, what is missing in this report, is any clear correlation between the two categories of dynamics.

What we consider as a ground-breaking work, shedding light on what before seemed only an ambitious assumption, is the manuscript published by the scientific journal *Nature*: produced by a team of 3 assessment facilitators and a group of 11 climate and conflict experts, the purpose of this study led by the University of Stanford was to assess how much climate change affects the risk of armed conflict (Mach et al., 2019: 193). The social scale of violence delimiting the focus was organized armed conflict within countries, that is, state-based armed conflict, non-state armed conflict and one-sided violence against civilians (Ibid.). Moreover, when writing about risk, the authors of the article were considering what they would define, as “the potential for consequences in cases in which something of value is at stake” (Ibid.: 194).

The most interesting result presented in the research, was the following: “Across the experts, best estimates are that 3–20% of conflict risk over the past century has been influenced by climate variability or change, and none of their individual estimated ranges excludes a role of climate in 10% of conflict risk to date.” (Ibid.: 193). This automatically gives recognition to climate variations, confirmed by a considerable number of experts to be influencing the likelihood or the extent of conflict outbreak. Despite its generally low position in the rank of the most impacting conflict drivers (among which inequality and low socioeconomic development can be named), climate change is also the most uncertain. This particular driver can cause such unpredictable impacts, which make it incredibly more dangerous and relevant for the ongoing decision-making processes. Another reason not to underestimate this factor of distress is that the world temperatures are constantly increasing, and the forecasts for the future estimate a directly proportional augmentation of conflict risk (Ibid.: 195)⁷.

However, the research scientists of Stanford are still not entirely satisfied with the general degree of understanding of the proper actions to be taken in order to face this type of geopolitical and environmental issues; besides, other questions

⁷ According to the University of Stanford, in the extreme scenario of 4 degrees Celsius of global warming above pre-industrial levels, the approximate path predicted with the amount of emissions produced in present time would make the ratio leap to a 26% chance more for climate shifts to cause war; that would represent more than 5 times the percentage calculated for the events of the past century until today (Mach et al., 2019: 194). This speculative forecast of the long run is however not relevant to our research.

remain on the climate's influence on the distinct phases of a conflict, making further investigation necessary. What remains pivotal for our research is their conclusion on the fact, that: "there is agreement that climate variability and change shape the risk of organized armed conflict within countries" (Ibid.: 196). In addition, as the co-author of Stanford's study Marshall Burke well stated, "knowing whether environmental or climatic changes are important for explaining conflict has implications for what we can do to reduce the likelihood of future conflict, as well as for how to make well-informed decisions about how aggressively we should mitigate future climate change" (Ryan, 2019).

Understanding the impact of Climate Change on the Sahel

Before looking at the Lake Chad and Cameroon's Far-North in the specific, it is fundamental to understand what being part of the Sahel area entails. From a merely geographic point of view, the Sahel,

"in Arabic Sāḥil, [is a] semiarid region of western and north-central Africa extending from Senegal eastward to Sudan. It forms a transitional zone between the arid Sahara (desert) to the north and the belt of humid savannas to the south. The Sahel stretches from the Atlantic Ocean eastward through northern Senegal, southern Mauritania, the great bend of the Niger River in Mali, Burkina Faso (formerly Upper Volta), southern Niger, north-eastern Nigeria, south-central Chad, and into Sudan." (*Encyclopædia Britannica*, 2019).

In Cameroon, only the most northern Region can be included in this general categorization.

The Sahel area touches several African countries and it stretches from the West to the East of the continent. Its climate is composed of two main seasons: the dry one normally lasts 8 months and it is intermitted by mild rainfalls from June to September, what we could define as the rainy season. However, from the second half of the 20th century, the impact of human air pollution added to a chain of environmental reactions that eventually affected the traditional course of these seasons. At the beginning of this millennium it has been proved that, "changes in the gradients in Sea Surface Temperatures (SSTs), associated with changes in atmospheric greenhouse gases and anthropogenic aerosols" (Dyer et al., 2017: 5654)

have contributed to influence the variability of the Sahelian precipitation trends. This means that the registered droughts of the past century were also a manifestation of an anthropogenic impact, related significantly to the global scale of emissions produced by industrialization (Giannini et al., 2008: 122). In particular, it has been demonstrated how the tropical oceans' SST perturbations, started during the 1950s, triggered the precipitation responses in the sub-Saharan Sahel: through several experiments carried on, it has been possible to show, for example, that a decrease in the Indian Ocean SSTs resulted in an increase in Sahel precipitation and vice versa (Dyer et al., 2017: 5673). The effects have been first anomalously abundant rains in the 1950s and 1960s, followed by unprecedented long-term droughts during the 1970s and the 1980s, and later a partial rainfall recovery during the 1990s; but “while precipitation may have recovered in the seasonal total amount, it has done so through more intense, but less frequent precipitation events” (Giannini, 2015: 721).

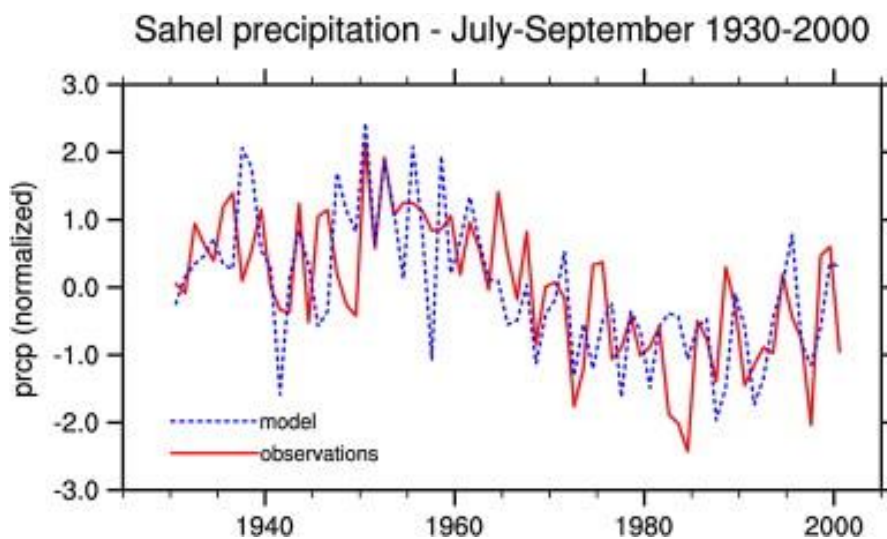


Figure 1: Indices of Sahel rainfall variability (Giannini et al., 2003).

The periods of severe dryness that characterized the second part of the past century represented themselves in shorter periods during the past 20 years, damaging countless cultivated lands and creating issues such as water scarcity, low crop production and severe reduction of tree coverage, which consequently caused the loss of plants and animal species and lower biodiversity (Fedlmeier, 2015). Another effect was the increase in the susceptibility of soil to land degradation and of crops to pest attacks; therefore, as herders' cattle have been dying for thirst, fishermen have not been able to fish anymore, and farmers have been forced to abandon their

lands, now degraded and to an unusable state (Ibid.). All of these negative correlations further accelerated the advancement of desertification.

According to the United Nations' Convention entered into force in 1996 to Combat Desertification (UNCCD), the word 'desertification' stands for, "land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities" (United Nations, 1994: Part 1, Art. 1a). This means that it is not solely about the expansion of deserts, but it generally includes all kinds of land deterioration in the water-scarce parts of the world. These so-called 'drylands' are also defined in the Convention text, as "areas other than polar and sub-polar regions, in which the ratio of annual precipitation to potential evapotranspiration falls within the range from 0.05 to 0.65" (Ibid.: Part 1, Art. 1g), and they are home to about 3 billion people (Van der Esch et al., 2017).

Through the different grades of orange and red in this map, the arid areas of the world can be identified:

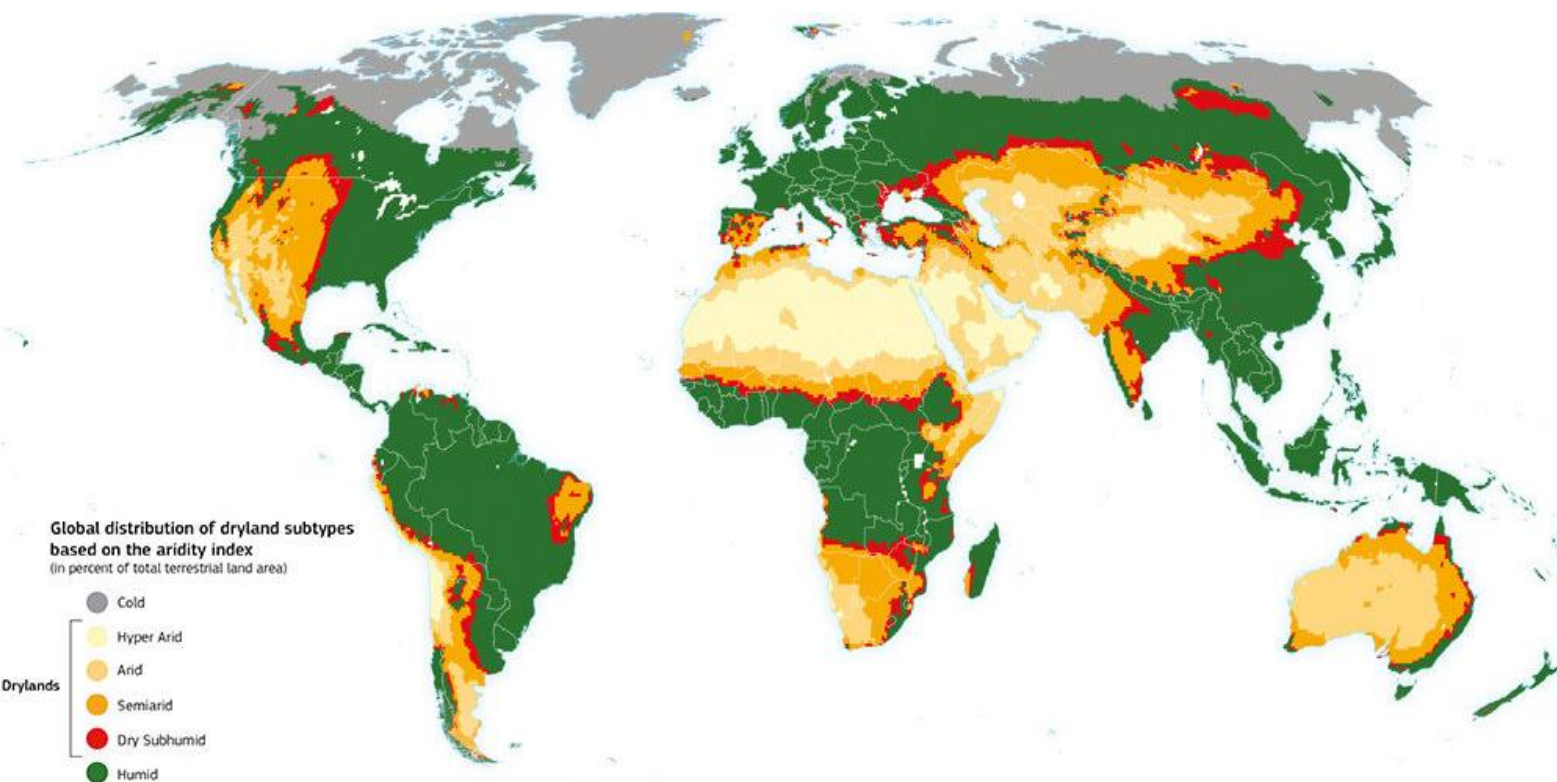


Figure 2: The observed global distribution of the climate classes over the periods from 1951-1980 and 1981-2010. (Spinoni, 2015).

The affected and affecting population

250 million people in the world are affected by desertification (IPCC, 2019). The advancement of deserts also causes a reduction in productivity of ecosystems in those countries, where the inhabiting population grows at a rate that might see its total amount almost doubled by 2050 (Van der Esch et al., 2017: 70). Traditionally, poorer people have bigger families, because children represent a guarantee of sustenance as soon as they get old enough to work; moreover, birth control and the use of contraceptives have often been considered sinful practices in many local communities and cultures ⁸. In fact, a large progeny represents wealth and respect, while women are expected to fulfil their natural duty of bearing children; faith and religion also play a relevant role in supporting the spirits, despite the uncertain future and in underlying the sacred value of life ⁹.

A direct consequence is that the Sahel has one of the highest birth rates in the world, and not only its numerous population, but also all the newcomers, need to be fed (World Bank, 2019). As the scholar Enrich Dyer reminds, in those territories, “rainfall can affect the ability to produce crops, as rain-fed agriculture is widespread” (Dyer et al., 2017: 5654). The local population’s livelihoods are dependent to the primary sector of their economy, agriculture, which is also the most vulnerable sector to climate change. This puts millions of people at the mercy of weather variability: for instance, a change in the duration of the rain season can severely compromise the food revenue of an entire village.

Those inhabitants living in the semi-arid territories of developing countries, such as Niger, Cameroon or Chad, cope with their constantly enlarging ‘ranks’ often through practices that do not respect, but overexploit the environment instead (Mirzabaev et al., 2019: 259). Without being aware of that, they are making the effects of climate change hit them even more harshly than they normally would. Unsustainable land management practices are human activities harmful to the surrounding fragile environment, which are adopted out of poverty and ignorance, in order to meet the growing food demand (Ibid.: 251). For example, in Niger, the

⁸ Impressions collected during informal talks to local people in Maroua, the chief town of the Far-North region of Cameroon, in the Fall 2019.

⁹ Ibid.

costs of degradation caused by land exploitation reached the 11% of the country's GDP in 2007 (Moussa et al., 2016). Deforestation to expand croplands and satisfy the higher demand from bigger households, is a practice that deprives the soil from trees' roots, which have the vital function of keeping it together, as well as permeable to water and humidity. The use of chemical fertilizers and pesticides, aggressive means of harvesting or fishing, and overgrazing, can all be considered as anthropogenic drivers of desertification (Mirzabaev et al., 2019: 259). Not only is human intervention depleting the soil by diminishing its fertility, but it is also straining its own abilities to deal with severe droughts or sudden heavy rains, caused by the changing climate.

The war in Darfur: a mistake not to repeat

The tendency to consume greater amounts of land-based resources, such as wood for cooking, and water for irrigation, fishing and watering the cattle, has made such resources more and more rare through the years. This has brought increasing tension among locals, who find themselves in the same situation of food insecurity and distress. When a similar situation of instability is perpetuated, the risk of evolving into violence and conflict becomes progressively real, just like it did in the Sudanese province of Darfur. What is defined as the first modern climate-change conflict, is actually a result of originally sporadic clashes began during the 1980s, which worsened until becoming a civil war; the tensions were also of an ethnical nature, since within the population of Sudan, a basic divide between Arab, mostly Muslims and African, black Christians was part of the local culture and ideology (Mazo, 2009: 74). Nevertheless, the key to understand the outcome of hostilities lies in the relationship between agriculturalists and pastorals: while the land of both work environments was deteriorating because of random, cyclical or greenhouse-induced climate change, competition increased on the remaining territories to farm or graze (Abdouyoub, 2012: 165). Darfur in particular, in the period between 1980 and 1984, and again in 1990, experienced a very severe drought, whereas in 2003, wetter trends turned into flooding and landslides (Mazo, 2009: 77). The very former General Secretary of the United Nations Ban Ki-Moon claimed, that: "It is no accident that the violence in Darfur erupted during the drought" (Ki-Moon, 2007). The fact that the necessary natural resources were not sufficient for everyone anymore, weakened the ability of society to cope with the additional bad governance

that ignored Sudanese Western region's needs. Researches such as the ones of Jeffrey Mazo and Younes Abdouyoub, affirm that the correlation between annual temperature variations and the incidence of civil war in Darfur was evident, by considering climate change as an exacerbating factor or threat multiplier (Mazo, 2009: 80)(Abdouyoub, 2012: 170).

This example plays a relevant role in our study because it represents an undeniable precedent that showed the potential of violence and destruction a changing climate can bring; furthermore, it can demonstrate how catastrophic can the circumstances become in the Lake Chad Basin if the national and international authorities do not intervene sensibly and wisely.

ENVIRONMENTAL DATA OVERVIEW OF THE LAKE CHAD BASIN

In present time, the communities that are living in the Sahelian region surrounding the Lake Chad, are experiencing a situation which can be described as a ‘conflict trap’: violence and displacement are direct consequences of a growing livelihood insecurity (Vivekananda et al., 2019: 12). As a consequence, the chances to adapt to climatic variations diminish and the degree of vulnerability of the local population to conflict and fragility increases (Ibid.). To understand how this point has been reached, it is fundamental to look at the past. The humanitarian crisis raging in the Lake Chad area was thoroughly analysed by the researchers of the Climate-fragility profile published by Adelphi. In this study, they pointed out that climate change should be considered as a variable that has been affecting already pre-existing shocks and pressures (Ibid.: 8). These can be distinguished by taking under investigation both a socio-economic perspective, and a political perspective. The focus of this chapter will consist in a presentation of the three above-mentioned categories, starting from the climatic variations to the Lake Chad Basin that interacted with them in the past years. A great attention will be given to the Lake by including an overview of its environmental history, starting from the second half of the previous century. Its dynamic role for the communities inhabiting its shores and neighbouring territories of the Far-north Cameroon will also be explored, in order to emphasize its value for the country’s northern economy and society.

The Lake Chad Basin and its environmental evolution

With a drainage area of around 2.5×10^6 km², which is also the 8% of the entire African continent, the Lake Chad Basin (LCB) is an extremely vast territory, which finds its natural core in the homonymous lake (Ibid.: 18). The total surface of the basin is distributed over the territories of Algeria, Niger, Nigeria, Cameroon, Central-African Republic, Chad, Sudan and Libya; however, what is considered to be its conventional perimeter does not go further than 300 km from the main lake pool (CBLT, 2015a: 8). This particular stretch of land includes the entirety of the Cameroonian region of the Far-North.

On May 22, 1964, in Fort-Lamy (today known as N’Djamena, Chad’s capital city), four of these countries, namely Niger, Nigeria, Cameroon and Chad, signed and ratified the Convention for a better management of the LCB, conducted through

advanced cooperation (Ibid.: 8). Later on, also Libya and the Central-African Republic, respectively in 1994 and 2008, joined the renown Lake Chad Basin Commission - LCBC (or *Commission du Bassin du Lac Tchad - CBLT*, in French) (Ibid.). This Commission was created to protect and monitor a local oasis that has a strategically high value, given its arid surroundings and its location at the edge of the Sahara desert. It represents a very fragile and vulnerable ecosystem, due to the precarious shallowness¹⁰ of its waters and its high exposition to invasive climate and non-climate stressors, such as pluviometry variability amplified by climate change, water pollution, hydrocarbon exploitation and pesticides usage for agriculture, among others (CBLT, 2015b: 4).

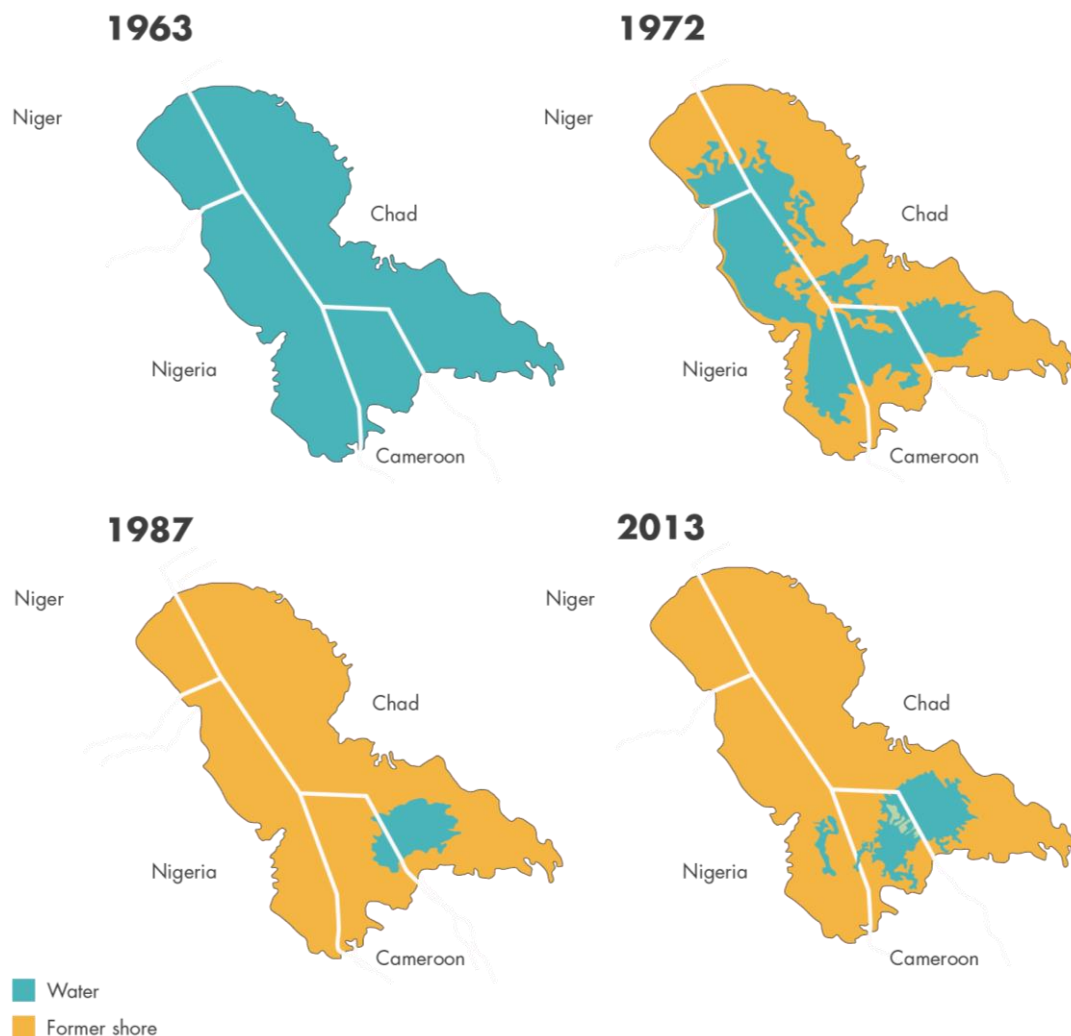


Figure 3: Lake Chad size variability from 1963 to 2013 (United Nations Environment Program and DIVA-GIS in Kingsley, 2016).

¹⁰ From 4 to 8 m in the Northern pool and 2 to 4 m in the Southern pool with an average of around 1,5 m of depth (CBLT, 2015a: 17).

The lake Chad surface area has always been fluctuating during both its ancient and recent geological history, mainly in response to shifts in precipitation regimes and the rising of temperatures (CBLT, 2015a: 6). It reached extraordinary dimensions, but it also dried out entirely several times, showing its high sensibility natural climate variability (Ibid.). In particular, significant variations have been documented both seasonally and intra-annually throughout the course of the second half of the past century as well, following the climatic pattern experienced in the entire geographical region of the Sahel (Nagarajan et al., 2018: 20).

According to the CBLT report of 2015, the brutal fluctuations that characterized the period between the 1960s and the 2010s, saw the average surface of the lake decrease with two thirds from its original size, moving from more than 22.000 km² to around 8000 km² (CBLT, 2015b: 7). As clearly reported in Adelphi's Climate-Fragility Profile, while in the 1960s the lake reached its greatest extension of the 20th century, the 1970s and 80s' droughts divided the oasis into two sections (Nagarajan et al., 2018: 20). The southern pool, consisting mainly of open waters and the northern pool, which entirely dried up 12 times during the period 1975-1994 (Ibid.). These two components of the lake got separated by an east-to-west vegetation-covered sand barrier named 'Great Barrier', sporadically overcome by the action of consistent floods (Ibid.).

With the lowering of the lake within that period and the increasing temperatures, the northern pool had a higher tendency to evapo-transpirate during the past 2 decades, in fact, it completely evaporated during the dry seasons between 2005 and 2012, while water was still present during the rainy season (Pham-Duc et al., 2020: 3). One major reason was the increase of permanent vegetation by ~30%, which inevitably reduced the runoff from the southern pool to the northern pool through the Great Barrier¹¹ ; another factor contributing was the gradual decrease in the Nigerian river Komadugu Yobé discharge, one of the tributaries feeding the Lake's waters (Ibid.: 4). The descending trend of surface water of the Lake Chad over the last 20 years, as clearly reported by the Scientific Report for Nature from this March 2020, was mostly due to the decreasing trend of the northern pool (Ibid.: 3).

¹¹ From ~3800 km² of vegetation in the 2000s to ~5200 km² today (Pham-Duc et al., 2020: 4).

The rapidity with which the lake proved to be able to shrink, with a negative peak of 1,700 km² registered in 1985, is the main reason, why several reports were published at the beginning of the new millennium to raise awareness on its potentially impending disappearance (Ibid.: 18). In the year 2001, several scientific articles (for example, Coe & Foley, 2001; Chandler, 2001) were invoking the incumbent disappearance of the lake Chad (Magrin, 2016: 211). They would support such assumption through a series of NASA satellite pictures that, if put in a certain chronological order, would only highlight a negative trend of the lake's open water levels, while completely ignoring the portion of water covered by vegetation (Ibid.).

However, by doing so, international news media spread the false story that the lake Chad was destined to disappear regularly, and unrelentingly, and legitimated stakeholders to call for international investments on the area, proposing also large water-based infrastructural projects (Magrin, 2016: 207, 211). An example was the Inter Basin Water Transfer (IBWT, or *Transaqua*), a project presented during the International Conference on Lake Chad in Abuja, Nigeria, hosted by the Federal Government of Nigeria and the Lake Chad Basin Commission (LCBC), with the support of the United Nation Educational, Scientific and Cultural Organization (UNESCO, 2018). One of the Conference's objectives was to collect stakeholders' and investors' consensus on a plan to restore Lake Chad's waters: a pipeline on the Ubangi river, the natural border between Central African Republic and the Democratic Republic of Congo, would create a connection with the Chari river, the main hydrological tributary of the Lake (Ibid.). Through the promotion of such a project, a convenient narrative was built by the leaders of the region, spreading the unrealistic message that by stabilizing the amount of water contribution to the LC, its surface would stop varying, climate change would be defeated, and the conditions for conflict would slowly disappear (Brown & Vivekananda, 2019). Furthermore, blaming the increase in water abstraction and the anthropogenic climate change, the focus was moved away from the region's wider and more complex context, as well as from a series of serious governance failures that favoured the outbreak of violence in the first place (Ibid.).

According to the researchers for the thinktank Adelphi, "irrigation withdrawals have so far played a fairly insignificant role for the Lake's water balance, and the impact of climate change is far more complicated and uncertain

than the evocation of a direct linkage between global warming and surface shrinkage insinuates” (Nagarajan et al., 2018: 20). Moreover, they insisted on the Lake Chad’s constant fluctuation (Ibid.). It has however stopped shrinking, and its size has, on average, been relatively stable during the first two decades of the new millennium (Brown & Vivekananda, 2019). Another factor to take into consideration is the reservoir of groundwater underneath the surface. Despite the fact that, “the present situation of aquifers, including groundwater levels/variations, flow and replenishment are still under investigation” (GiZ and CBLT, 2015: 35), they play a relevant role when trying to understand the unlikeliness of the Lake’s disappearance. In fact, according to Pham-Duc et al. (2020: 4), surface water storage only contributes to a maximum ~30% of the total variation of the water volume of the lake, while ~70% of water volume variations come from the subsurface. Moreover, knowing that the maximum depth of Lake Chad’s surface water is ~3 m, the field observations for the study published on Nature allowed an estimation of the Lake Chad groundwater aquifer’s depth of ~70 m (Ibid.: 5). These data help us building a more realistic idea of the actual proportions of water present in the Lake.

When looking at the water level susceptibility of the Lake Chad, while the intra-annual one depends on prolonged global-warming-induced periods of dryness, the seasonal one is deeply connected to the riverine basins feeding the lake. As it was accurately documented by the CBLT, “The lake is predominantly replenished by the Chari river (around 85% of the total intake), the rains (around 7 and 14 %) and the other tributaries, such as El Beïd and Komadugu Yobé (respectively 2 and 1,5 %), that complete the intake. The losses are essentially constituted by the evaporation (95% of the losses), and the infiltration towards the reservoirs of groundwater (around 5 %)” (CBLT, 2015b: 11). In the Lake Chad region, temperatures rise at rates above the global average; therefore, the phenomenon of evaporation will presumably be progressively less compensated by the seasonal precipitations (CBLT, 2015a: 6, 17). The Chari-Logone¹² basins suffer the most from such effects, visible during and after the rainy season, lasting from August to

¹² The Logone river draws the natural western border between the Far-north Cameroon and Chad flowing from the Cameroonian Adamaoua mountains, through the Southern Chadian cities of Moundou and Bongor, until the point of merging with the Chari river in the proximities of the cities of Kousseri and N’Djamena, about 100 km before their waters reverse into the lake Chad (CBLT, 2015a: 17).

November (Ibid.). As a confirmation to this statement, less copious rainfall has been registered in the area during the current wet period in comparison to the previous one, about 50 years ago (Nagarajan et al., 2018: 22). Hence, the following assumption presented in the Climate-Fragility Profile is credible: the Lake Chad shrinking is not the direct manifestation of the territory's climate vulnerability, but rather the substantial variability, that makes the future availability of water resources impossible to foresee (Ibid.).

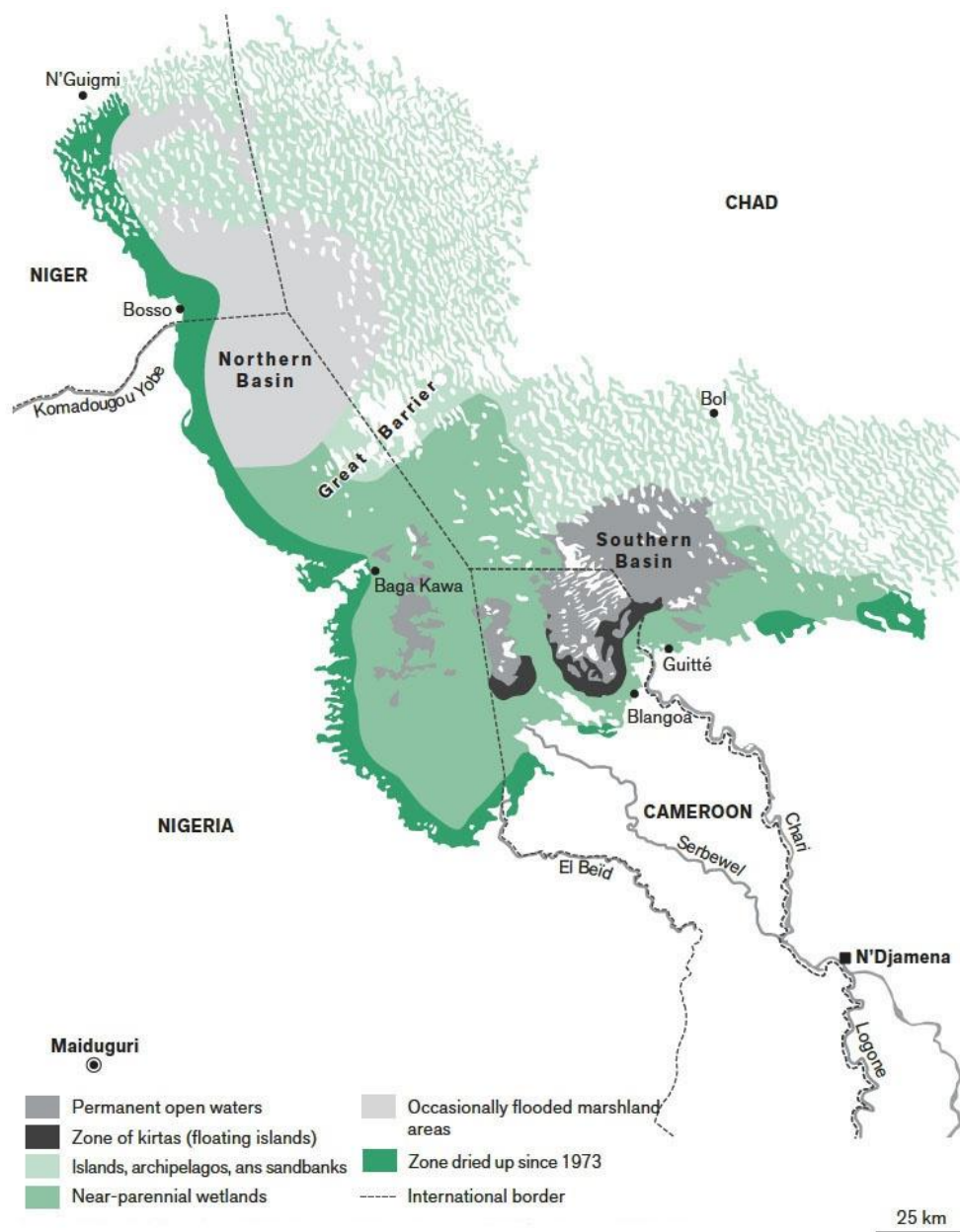


Figure 4: Hydrology and vegetation of Lake Chad (Seignobos, 2015).

The socio-economic perspective

The Lake Chad Basin is considered to be one of the largest sedimentary closed groundwater basins in the whole of Africa, but it is also one of the most threatened fluvial ecosystems in the continent (CBLT, 2015a). Its hydro-climatic evolution saw an overall decreasing tendency in precipitations¹³ and in the reserves of subterranean groundwater from the 1970s until the 1990s, as well as a +0,5°C increase of the average temperatures (CBLT, 2015a: 15). Nevertheless, it remained an ‘economic lung’ throughout the years, thanks to the humid zones characterizing its shores and marshlands, which represent a source of life not only for the local and international fauna, but also for millions of people (Ibid.: 27, 35). On the one hand, through the protection of these waters, the conservation of biodiversity was granted, whereas on the other hand, the main economic activities of the LCB, such as fishing, agriculture, and livestock farming, continued to give enough food to the local population of at least four different countries. Such activities are typical of a population that remained until nowadays by its vast majority rural, and therefore with a low rate of economic diversification and a great dependence to the climate (Magrin, & De Montclos, 2018: 41) .

According to the French geographer Géraud Magrin, the societies inhabiting the shores of the lake Chad have always been characterized by a strong cosmopolitanism, given the attractiveness of its resources: since the 1950s, the Lake represented a welcoming environment for fisherfolk as far as Mali (Magrin, 2016: 209). Such business usually flourished in the areas susceptible to substantial floods that allow the young fish to stay for longer time in an environment rich of nourishment and protected from predators (CBLT, 2015a : 21). Subsistent agriculture was practiced to cultivate products, such as cotton, groundnuts, sorghum, wheat, millet, corn and rice in the territories within the LC-Basin (Ibid.). In time, it evolved into 3 different typologies: the agriculture of irrigation, directly dependent to the Lake and its tributaries’ waters; the agriculture of receding waters, based on the humidity retained by the soil after a flood left behind extremely fertile lands;

¹³ The zones in the lake latitude witnessed an annual decrease of 100mm on the average of 300, whereas the zones located at N’Djamena’s latitude suffered a loss of 200 mm on an average of 600mm of precipitations per year; only the regions around the cities of Maroua (Cameroon) and Bossangoa (Central African Republic) presented an inverse trend of slow rainfall recovery since the 1990s (CBLT, 2015a: 15).

the pluvial agriculture, practiced in the regions around the Lake (Ibid.: 22). One of these is the Far-North Cameroon, where the climatic zone, called ‘Sudanese - Sahelian’, is characterized of yearly precipitations between 400 and 1500 mm (Berger, 2011: 3). Extensive farming was also widely pursued, especially through transborder migration from North to South of the Lake and its flooding plains, during the dry season, and from South to North, during the rainy season (CBLT, 2015a : 22).

At the time of the drier periods following the ‘Great Lake Chad’ decades, the southern pool retired considerably, leaving space for, as reported by Magrin, “large areas of fertile sediment suitable for flood-recession crops and pasturelands” (Magrin, 2016: 209), in other words, the agriculture of receding waters. The very same phenomenon favoured sedentary livestock of lakeside pastoral groups: these people would traditionally have seasonal nomadic lives, depending on the degree of land availability (Ibid.). Despite their known tendency to get into competition with farmers, herdsman have not fuelled much tension against that portion of society until the 2000s (Ibid.: 210).

However, the shifting from Great to Small Lake Chad favoured the agriculture of receding waters, but it also deeply affected the one of irrigation, which saw its profitability jeopardized by extra costs made necessary to pump water over greater distances (Ibid.: 210). Similarly, the researchers Prosper Soma Techoro and Michael Schmidt denounced the catastrophic effects of drought on pluvial agriculture, explaining that: “It does not take severe drought to affect crop yields. Even moderate lack of available water can drastically reduce crop yields. These types of droughty periods usually cause damage to rain-fed agriculture and the consequences are usually dramatic in that they render the agricultural soils very unstable, prone to crusting and soil hard-setting, thereby making crop production very difficult. The possibilities of desertification are also increased” (Techoro & Schmidt, 2014: 225/226).

In addition, a crisis in the fishing sector erupted during the same dry period: its productivity is directly proportional to the extension of the flooded area and therefore, dependent to the hydrological regimes of both the Lake and its tributaries. Fortunately, in the following decades, more productive fishing was re-established,

thanks to the introduction of new techniques and the gradual recovery of sufficient precipitations (Ibid.: 209/210) (CBLT, 2015a : 36).

Still, the people living in the conventional perimeter of the Lake gave proof of a strong willingness to adapt, by adding a good portion of dynamicity to their livelihoods, developed in an autonomous way, despite the extreme fluctuations in the weather and environmental characteristics (CBLT, 2015b: 17). Through the articulation of the '3 Ms', the report of the LC-Commission implemented by the World Bank managed to bring a more concrete explanation to this behaviour: 'Mobility', 'Multi-activity' and 'Multi-functionality' were the 3 key-actions that saved the local society from being helpless in front of every new unpredicted variation of the weather. For the local population, the decision of moving had to be taken as a consequence of the disappearance of resources; for example, as the waters of the Lake Chad would retire during the drier months of the year, the herders would migrate towards more humid lands (Ibid.: 23). Moreover, the second 'M' implied that the majority of the Lake population would be engaged in two or three main activities that produce income, such as fishing, farming, or agriculture (Ibid.). To conclude, Multifunctionality consisted in their ability to adjust, by valorising the same space and territory through one or another activity, in relation to the environmental condition of the moment (Ibid.).

However, as professor Magrin promptly asserted in his research, the balance that such a complex lifestyle achieves, remains quite fragile: the frequent disappearance of the northern pool makes it a highly vulnerable resource, upon which it is hard to rely on; besides, the land has a limited capacity for living and economic purposes, therefore, if the demographic trend will not stop¹⁴ its constant growing, the area might soon reach a level of saturation (Magrin, 2016: 210). It was also the action of a series of local political negotiations that contributed to conserving a relative degree of equilibrium during the past in the Sahelian region of interest (Ibid.).

The risk of erupting tensions on the access to the already scarce resources available, caused by a fast-increasing number of users, was not the sole phenomenon menacing the delicate balance reached during the end of the XX century in the Lake

¹⁴ According to Adelphi, in 1976 the population inhabiting the lake shores was around 700.000, whereas today the y reached 2.2 million people, and the number's estimation for 2025 will be around 3 million (Nagarajan et al., 2018: 10).

Chad Basin. In fact, before the outbreak of the conflict against Boko Harm, cross-border trade was thriving, especially around and towards the two main urban centres of the conventional basin, notably the cities of Maiduguri in Nigeria and the capital city of Chad, N'Djamena. Sadly, from 2009 in Nigeria and 2014 in the other bordering countries, the regional economies (and in a lighter way, the national ones too) received a terrible hit: people were not able to fish or farm like before as the forces of the terrorist group Boko Haram would hoard and burn entire villages or the national military would not allow them, for security reasons (Nagarajan et al., 2018: 11). Furthermore, even if the economic production was not obstructed, markets were either closed or trade ways to transport goods (often crossing borders) were too unsafe to travel through (Ibid.). The consequent results of such circumstances were higher food insecurity, more cases of malnutrition, difficulties in practicing the traditional techniques of adaptability suggested by the above mentioned '3 Ms' and a general dependence to humanitarian aid (Ibid.).

In a context of global warming and demographic pressure such as the one lived in 2015, the LCB was home to around 50 million people (CBLT, 2015a). In the specific case of the lakeside population, since the return to a phase of Small Lake Chad, people took advantage of the new large areas freed by the recession of water to install crops and bring their cattle on the new lands, which became ideal for their high fertility and availability for pasture (Magrin, 2016: 209). More precisely, in the northern pool area, most of the people usually install themselves in a more temporary and flexible way, especially around the entrance-point of the Komadugu Yobe's waters to the Lake. On the other hand, on the more densely populated shores of the southern pool, people are more permanently settled (CBLT, 2015b: 20). As Magrin assessed in his research, "The lakeside population has risen from 700,000 people in 1980 to over 2 million in 2014" (Ibid.), making the competition over the natural resources present in the region increase substantially. The countries' populations bordering the Lake have around the lowest median age in the world, between 15 and 18 years old (Worldometers, 2020).



Lac Tchad :

■ espaces régulièrement inondés (eaux libres et marécages)

■ espaces irrégulièrement inondés

Bassin versant conventionnel



Principales villes :

■ > 1,5 million d'habitants

■ de 0,5 à 1,5 million d'habitants

■ de 0,1 à 0,5 million d'habitants

■ < 0,1 million d'habitants

Figure 5: The population in the Lake Chad Region (Lemoalle & Magrin, 2014).

In the case of Cameroon, the Far-North is the second most populated region, with almost 4 million people inhabiting 34.263 km², which is only 7.4% of the surface of the whole country (PopulationData, 2020) (Berger, 2011: 4). Moreover, while 9% of its land is part of national parks, another 23% is dedicated to agriculture, axed around rice and cotton as the main cash crops, and cereals, beans, and yams as the most common food crops (Ibid.). Fishing is also quite common in the region, thanks to the dams built on the Logone river and Maga lake and the formation of intermittent seasonal rivers called 'mayos', running down from the Mandara mountains; creating a floodplain known as Yaere, this overflow area from the Logone River to Mayo Kebbi (a region of Chad) drains into the Lake Chad during the dry season (Magrin, & De Montclos, 2018: 28). Not only the fishing sector, but

also the farming one, which covers over 35% of the national livestock, takes advantage of these seasonal pools and rivers (Berger, 2011: 4). Indeed, nomadic herdsman that would usually have to migrate over long distances to find pasture and water for their cattle, can reduce their movements thanks to such seasonally humid territories (Magrin, & De Montclos, 2018: 30).

This Sudanese-Sahelian zone of Cameroon is highly threatened by the ecological problem of desertification, as trees and water become scarce; in fact, fuelwood needs drastically increased, driving to a marked spread of deforestation as a response to the growing population, of which 80% exploits this source of energy (Berger, 2011: 19). “The inefficient management of rural soils, irrational exploitation of water resources, inefficient management of protected areas, and overexploitation of fishery resources” are also forms of negative anthropogenic impact to the environment (Ibid.). Soil degradation is often a process accelerated by the practice of over-grazing, which applies too much pressure to the land that eventually goes through an intense erosion, and a consequent loss of fertility and weaker water infiltration (Ibid.: 22).

Characterized by many ethno-linguistic groups of Muslim majority, the far-northern population is one of the poorest of the country, where the youth is often excluded and marginalized, especially in the labor market, in spite of being the great majority (Nagarajan et al., 2018: 12).

The political perspective

So far in this dissertation, the Lake Chad Basin has been described and looked at as a single, united geographical entity, without giving much attention to the political and administrative distribution of powers in the area. The truth is there are great similarities and differences in the structure and policies the four main countries around the Lake decided to adopt since their independence, in relation to the people and the territory under their sovereignty. All of them were under the colonial control of either France (Niger, Chad, and a part of Cameroon) or the United Kingdom (Nigeria, and the other part of Cameroon) and obtained their freedom in 1960. The only country that decided to become a federation is Nigeria, all the others maintained the administrative structure ‘imported’ by France. This can be automatically translated in a more centralized power of the establishment that quite

commonly runs the countries from the capital cities, such as Yaoundé in the South of Cameroon, Niamey in the far West of Niger and N'Djamena, the only capital city in the great vicinities to its country's homonymous Lake. That area is a geopolitical point of encounter, where it can be very hard to cooperate on the governance and coordinate the operations for the preservation of the natural resources, available in different portions and amounts within each country (CBLT, 2015b: 4).

This is why during the 1960s the Commission was created, to harmonize the administration of the shared hydrological basin; though, it has had a hard time imposing its priorities on States' governments with erratic interest in its matters, internal contradictions and weak institutional capacities (Magrin, 2016: 214). This regional apparatus is also dependent on international aid that comes often from several donors, who are not persistent in their contributions (Ibid.). All four countries touched by the waters of the Sahelian lake are direct funders of the Commission, however, in an irregular way: in fact, the contributions do not depend on the size of the share of the lake surface. While Niger and Chad are the least participative, Nigeria is the one carrying the biggest financial burden, constituted of at least half of the whole budget of the institution (Ibid.: 215). In exchange for this valuable remittance, it detains the power to designate the Executive Secretaries of the Commission, together with a significative influence in each investment proposals (Ibid).

Quite in contrast with its anglophone neighbour, Cameroon in particular, with Yaoundé over 1.500 km away from the lake shores, gave proof not to be much interested in the geopolitical ups and downs of the LC region, until very recently: indeed, the Far-North remains extremely remote in comparison to the political and economic epicentres of the country, situated in the metropolises of Yaoundé and Douala (Ibid). In addition, the cliff in the Adamaoua region geographically and historically represented a natural barrier to trade and communications with the North, making it difficult to maintain a homogeneous distribution of economic and infrastructural development everywhere in the African country. During the 1980s, the impact of the economic crisis and the arrival in office of Paul Biya, a President whose mandate is still ongoing in 2020, automatically made the Far-North region lose ground in the list of priorities of the State (Magrin & De Montclos, 2018: 71). Furthermore, the departments in proximity to the Lake Chad area became more and

more marginalized and under-administered by the government, almost facilitating the realization of the Nigerian plan to occupy the Darak area from 1987 until 2004 (an archipelago of around 30 islands on the lake Chad, being part of the Cameroonian slice of the surface, with a strategic position for the fish market) (Seignobos, 2015: 102). Since their withdrawal, the government tried to slightly increase its presence in the region, but never really managing to appear just and supportive to the eyes of the local population (Ibid.). The economic struggles that they had to endure throughout the decades of Biya's rule, such as underemployment, old and decadent infrastructures (roads, clean water, education, electricity) and imbalanced access to civil services, were often blamed to the political exclusion and widespread inequality the establishment in the South had put them into (Ibid.).

Another more recent form of relegation has been the conflict erupted in 2016, in the North-West and South-West regions of Cameroon. These lands bordering with Nigeria host most of the anglophone minority, 20% of the country's population (Crisis Group, 2017). The level of violence and displacement reached in those territories was caused by the exasperation of the people: they felt historically marginalized by the French-speaking elite since the year of independence and found in an armed separatist movement a chance to obtain the attention they were for so long denied. The magnitude that this insurgency reached brought national and international actors to interest themselves on it, thus forgetting and redistributing funding and military operations away from the older struggle, still ongoing, in the Lake Chad region (Kouagheu, 2019).

BOKO HARAM (JAS)

At the moment, the most threatening source of insecurity and displacement in the Sahelian hydrological basin under analysis is the radical Islamic group *Jama'atu Ahlis Sunnah Lida'awati Wal Jihad* (JAS, translated as 'People Committed to the Propagation of the Prophet's Teachings and Jihad'), commonly known as Boko Haram¹⁵ (Nagarajan et al., 2018: 13). Such name, coined as a derogatory expression, highlights the movement's strong stand against what it sees as, "a Western-based incursion that threatens traditional values, beliefs, and customs among Muslim communities in northern Nigeria" (Agbiboa, 2013: 147). As a consequence to a combination of different circumstances enounced in the previous chapters, this sect found fertile ground to exist and spread from the North-Eastern Borno State of Nigeria, to the rest of the geographical region. A section dedicated to this extremist movement finds a natural place in this dissertation, because it symbolizes the final piece of a long 'chain' of reactions. As the climate variability increased, the population started suffering from the impacts on the regional economy, and while the political powers ignored the signs of an imminent crisis, the most resentful elements in the society found an opportunity for a violent imposition of their rebellious ideas. In particular, the focus of this chapter will be kept on the characteristics of Boko Haram as a mobilizing group, with an internal structure capable of periodical renovation, thanks also to its appeal to the youth. Furthermore, its methods to compel new elements to join its ranks will be explored, in order to add more realism/rationality to its not only ideological magnetism.

From Maiduguri to the attention of the world

The terrorist group Boko Haram is an internationally well-known Islamist sect, which acquired notoriety for its ruthless brutality through the Western news' headlines since around 2014. However, its origins can be traced back to 2003: from that year, located in the Nigerian city of Maiduguri, the founder and spiritual leader Mohammed Yusuf began spreading his intentions to create a 'purer' socio-political structure, an Islamic State, following the Wahabi teachings his preaching was based

¹⁵ In the *Hausa* language, « Boko Haram » means the Western education or culture, is sacrilege/forbidden. In fact, the expression is composed of the word « BOKO », which means « book », referred to the Western education, and of « HARAM », which, translated from Arab, means « forbidden » (Agbiboa, 2013: 145).

on (Magrin & De Montclos, 2018: 121). Though, his influence and doctrine reached further than Borno State, arriving through form of sermons, leaflets, and armed forays until Cameroon, Niger and Chad (Ibid.: 122). Most of Yusuf's popularity was first due to his positions against the corrupted elites in power and his campaigns to instruct on the Sharia law (Ibid.). Soon enough, he obtained the support of a whole jihadist movement called 'Nigerian Taliban', that pledged its allegiance to him and mounted its first terrorist attacks as an underground group right after their leader's execution, in 2009 (Ibid.: 123).

This new criminal shift, together with the instauration of a new guide, Abubakar Shekau, was introduced by a great uprising against the government and the national military forces, led with the intent to accelerate the implementation of their virulent anti-State agendas (Nett & Rüttinger, 2016: 14). Kidnappings, tax extortions, and banks' robberies allowed a quick progress of the movement, which managed to get the control of entire local administrative areas in Borno and Yobe States in 2012 (Magrin & De Montclos, 2018: 123). The Nigerian military response, with the declaration of a state of emergency in the BYA States in 2013 (Borno, Yobe, Adamawa), forced the sect to leave Maiduguri and therefore abandon its urban dimension (Ibid.). The insurgents found refuge in the natural reserve of Sambisa forest, located close to the border with Cameroon, but they did not interrupt their terrorist operations: in the following months, JAS continued to bring destruction and brutal violence among the Nigerian population (Ibid.). Eventually, it is the 276-schoolgirls abduction from the village of Chibok in April 2014 that becomes soon a worldwide affair known by the general public and gives an international connotation to the conflict (Ibid.: 124).

Before 2014, the absence of reported attacks by the jihadist group left people believe that the other Lake Chad bordering countries remained seemingly untouched by their atrocious mobilization. However, it is important not to ignore the fact that Boko Haram had indeed followers in Niger, Chad and Cameroon since the beginning of its proselytism; it was decided to keep them from organizing aggressions, as long as the local governments would let them have rear bases and influence on their territory (Ibid.: 120). In the specific case of Cameroon, the western borders were never conceived as traditional frontiers, but rather as areas, where often the same ethnic groups, families and villages lived; moreover, the Islamic culture was widely

spread in the Far-North, making it a vulnerable region for infiltration (Crisis Group, 2017: 3). As the poorest of Cameroon's regions, with the lowest school enrolment rate, the Far-North was unavoidably more prone to criminality and violence, even before the arrival of JAS (Ibid.: I). It was commonly known that the Cameroonian part of the Mandara mountains was used as a safe haven by Boko Haram affiliates, as well as a food and fuel supply corridor. In addition, sympathetic recruiters, logisticians and imams were already active in the region since 2010 (Ibid.: 9). The Far-North had in fact become the centre of JAS logistics network.

The armed group has never stopped evolving in its tactics and strategy, though it has always looked at the population for a substantial portion of support (Nagarajan et al., 2018: 13). In fact, when Boko Haram forces began to extend the reach of their military operations to the lake Chad, some locals saw their violent irruption as an opportunity to take back the monopoly on certain economic activities, discharge debts and profit from disorder to engage in looting (Seignobos, 2015: 103). Another factor that made that territory inviting for the sect, was the absence of legitimacy of the national jurisdictions: as the researcher Christian Seignobos explains for *Afrique Contemporaine*, "The difficulty of moving through the wetland's shifting labyrinth of vegetation and the lake's cross-border character have made it a lawless zone under both colonial and national administrations" (Ibid.: 98). Furthermore, it is indeed not the most ideal theatre of operation for national armies, which in the meantime had been deployed as a Multinational Joint Task Force (MNJTF) by the 4 Central African countries to defeat the extremist movement (Ibid.: 111). Formally, a 2015-descendant of another homonymous sub-regional commando, created by the Lake Chad Basin Commission in 1998 to fight banditry in the region (Magrin & De Montclos, 2018: 100).

Since 2014 until nowadays, with the expansion over the lake Chad's marshlands, the conflict against Boko Haram became a matter of open warfare. While sporadic frontal assaults were carried on with armoured vehicles and heavy weapons, the jihadist group maintained the practices of simultaneous suicide attacks, ambushes to army posts, looting raids and reprisals against collaborators with the government or vigilantes (Crisis Group, 2017: 10). The immediate effects of such frequent and unpredictable incursions were the rupture of the human coping mechanisms, built around agriculture and trade to survive in the volatile context the

people lived in (Afu, 2019: 19). Inevitably, when markets, churches, mosques and schools became the main targets, the authorities began fearing the high risk of infiltration growing in such places (Ibid.). With the decision of closing markets and international border crossings, they also accelerated the process of degeneration of the trade sector, posing “serious economic implications on a region [the Far-North Cameroon] that derives more than 60% of its income from trans-border trade with Nigeria and Chad” (Ibid.). In addition, around 70% of the population farming in the most affected departments of the Far-North, Mayo-Sava, Mayo-Tsanaga, and Logone and Chari , were forced to abandon their farms, missing 6 months in 2015 of key activities for the sector and increasing exponentially the price of what was left (Ibid.: 20). Schooling became a dangerous activity too for most youth and teachers, and was thus interrupted for a considerable amount of time (Ibid.).

At first, the Cameroonian government did not make an accurate estimation of the sophisticated enemy it was dealing with. On the contrary, the movement was perceived as their neighbour’s internal problem, from which they had to stay as far as possible, to avoid that any attempt of intervention might be seen as a provocation (Crisis Group, 2017: I). Despite the preliminary reluctance, Cameroon’s contribution to the MNJTF brought some relief in the Far-North, especially in decreasing the rate of suicide bombings. However, MNJTF response remained weak, for lack of proper cooperation, funding and logistical resources (Ibid.: II). This security-based approach obscured the importance of a commitment on a more long-term based front, the one including development initiatives and counter-radicalisation and de-radicalisation programs (Ibid.: I).

Origins and features of a Sahelian Non-State Armed Group (NSAG)

When looking at the general features of Boko Haram, it certainly falls into the category of Non-State Armed Group (NSAG), therefore it fits the definition proposed by the researchers Katharina Nett and Lukas Rüttinger in the report for *Climate Diplomacy*:

NSAGs are “[...] groups that challenge the state’s monopoly of power and its capacity to control violence throughout its territory, thus covering a broad spectrum of actors both with and without intentions to take over political power and induce political change. All of these actors share a basic organisational

structure that persists over a certain period of time, the readiness to employ arms and use force to achieve political, economic, or ideological objectives, and a command structure outside state control. [...] They have not committed to adhering to international humanitarian law, such as the Geneva Conventions or the Hague Conventions.” (Nett & Rüttinger, 2016: 3).

In present times, they are becoming more and more hybrid actors, following more volatile trajectories within non-war settings, which by now cause 90% of the registered violent deaths (Ibid.: 4/5). A form of so-called ‘unconventional armed violence’ is practiced at endemic levels, threatening the peace and security of both the civilian population and the State, through actions of (transnational) organised crime, gang violence, domestic violence, gender-based violence, and terrorism (Ibid.). The contemporary hybridity of agendas characterizing NSAGs increasingly blurred the divergence between those who are politically motivated and those who are just criminal organizations (Ibid.).

Following the features of classification shaped by Nett and Rüttinger, the pattern of violence identified in the case of Boko Haram materializes in the form of a conflict or an insurgency with high levels of violence; moreover, its territorial aspirations are State-like, but very adaptable to circumstances, with the intent to establish an Islamic caliphate expanding beyond Nigerian borders (Ibid.: 14). Their group identity is described as “ostensibly religious but backed by ethnic and regional identities and mixed with feelings of injustice and oppression” (Ibid.: 7).

The JAS is a religious sect without a rigid hierarchy, nor a monolithic entity (Agbibo, 2013: 149). It is composed of numerous cells, operating as ‘bases’, which react similarly to the same instructions and foresee the same consequences (Seignobos, 2015: 95). Besides, no political figures or economic interests are actually defining the strategies of the group (Ibid.). Hence, although it might bring internal discordance and asynchronized execution of their military operations, this kind of internal organization without an actual leader, according to Seignobos, proves most difficult to subvert and destroy (Ibid.).

In a way, it is the very environment they exercise their influence in, that creates the conditions for them to thrive and facilitates the pursuit of their strategies. It is possible thanks to a combination of ungoverned spaces, where State institutions are weak and corrupted, transnational crime is conducted freely, poverty is chronic and

youth unemployment increases day by day (Nett & Rüttinger, 2016: 5). Such an atmosphere of unrest makes terrorist organizations such as Boko Haram more resilient too (Ibid.). In defiance of its former founder's ambitions, the sect preferred consolidating a system of spatial control that was reticular and networked, rather than State-like; by doing this, it managed to keep a considerable amount of freedom of movement and unpredictability (Seignobos, 2015: 95). This feature is essential when some of those bases, otherwise called 'military regions', have to reduce personnel or disappear altogether, for instance, because of the start of a withdrawal phase (Ibid.: 94). In these circumstances, the jihadist fighters have to either return to the remote and better defended areas of influence, or 'go dormant', camouflaging as harmless, ordinary villagers in their native communities (Ibid.).

The people among which they hide are often the ones living in the most deprived socioeconomic conditions, with deteriorated social services and infrastructure, and lack of proper education (Agbiboa, 2013: 148). According to Daniel E. Agbiboa, an assistant professor for Harvard University, their situation of sustained grievance, imposed by a relative deprivation of the basic necessities, legitimates the flourishing of extremist non-State groups, such as JAS (Ibid.: 150). Through the analysis of several exponents' works, Agbiboa justified in an article for the African Conflict and Peacebuilding Review the existence of Boko Haram: in line with the so called 'relative deprivation perspective', the religious conflict arisen in the Lake Chad basin did not have religious causes, though religion served as "the unifying and mobilizing identity" (Ibid.). He further argues that tensions grow when people feel dissatisfied and transform this negative perception in frustration; then, the desire for rebellion to the structure, to which they are supposed to submit, gains more and more intensity (Ibid.). He supports this assertion by reporting in his research the concept elaborated by the political scientist Robert Gurr, stating that "structural poverty and inequality within countries are breeding grounds for violent political movements in general and terrorism specifically" (Gurr, 2005: 20). The living proof of this assumption is the rate of literacy among young people recorded by the National Population Commission in the Borno State of Nigeria, where Boko Haram was born : apparently, 72 % of the children aged between 6 and 16 never attended school (Forest, 2012: 73). This Nigerian perspective, which could be easily expanded to the other regions surrounding the lake Chad, is further developed by

the Research Director of the Nigerian Economic Summit Group (NESG), Sope Wiliams Elegbe, speaking for *Oxford Research Group* as follows:

“The increasing poverty in Nigeria is accompanied by increasing unemployment. Unemployment is higher in the north than in the south. Mix this situation with radical Islam, which promises a better life for martyrs, and you can understand the growing violence in the north. Government statistics show that the northern states have the highest proportion of uneducated persons. If you link a lack of education and attendant lack of opportunities to a high male youth population, you can imagine that some areas are actually a breeding ground for terrorism.” (Rogers, 2012: 4).

The Strategies of recruitment

As it has been briefly mentioned before in this chapter, Boko Haram forces rely considerably on the enlistment of common civilians. The members variate in social status and profession, it depends on the motivations that bring them to answering the call for *jihad*. There are university lecturers, bankers, political elites, drug addicts, unemployed graduates, *almajiris* (Islamic school students), and migrants from neighbouring countries; some others are new converts among hill tribes, butchers, minibus loaders, and motorcycle-taxi drivers (Agbiboa, 2013: 146/147) (Seignobos, 2015: 95/96). What brings them all on the same level is the animosity grown as a result of the increasing impoverishment and alienation from the rest of their country. As the scholars Nett and Rüttinger underlined in their study, “State fragility combined with livelihood insecurity often gives rise to violence linked to alienated, frustrated, or excluded populations, particularly associated with younger men” (Nett & Rüttinger, 2016: 4).

The rapid demographic expansion has seen the families of hundreds of thousands of young people struggling to provide for their education and sustenance (Seignobos, 2015: 95). As a consequence, these youngsters have found a way to survive by doing physical work in the urban markets and sometimes get a meal in *madradas* (Koranic schools): both environments are renown for being where the Sahelian terrorist group naturally prospers (Ibid.). By falling within this system, young people were thrown into proselytism and easily became eager to radicalize (Ibid.). Between 2011 and 2016, between 3,500 and 4,000 Cameroonians decided to

join Boko Haram as fighters, spiritual guides or logisticians (Crisis Group, 2017: 13). Many of them were only seeking a sense of identity and a paid job, legitimised by religion, and ended up being lured with the promise of higher social status (Ibid.: 14). This can be easily achieved within JAS ranks through the offer of young girls, usually kidnapped to be given in marriage to the new soldiers (Ibid.) The Islamist sect was able to grant its adepts adventure and many ways to fulfil a desire for personal revenge too, often linked to a form of inter-generational resentment developed towards the parents (Ibid.).

Another way to justify the magnetism Boko Haram has for teenagers and young men is the financial incentive that it promises upon entry into its ranks (Ibid.: 97). Apparently, fresh recruits are offered a motorbike and a bonus ranging from 300 up to 2.000 dollars, and promises extremely high salaries for the first months, in comparison to any other legal job they could do (Ibid.). Only completed missions are generously remunerated, and when a fighter gets killed in combat, the family is granted a substantial sum of money (Ibid.). The example reported by Seignobos in his 2015 article, an extract from an interview with police officers, focuses on the options offered to Cameroonian kids from the Far-North: “The children of the poor no longer need to take civil service exams in Cameroon. The government denies us entry to public service jobs where we can earn CFA 100,000 while Boko Haram, with no entrance exams, offers us CFA 300,000–400,000.”(Ibid.). In this recrimination, it is possible to grasp the sense of resentment and hostility towards a central power, who has not made sufficient efforts for the common people of the North.

As we could see from the previous paragraph, socio-economic reasons have been drawing young people to join JAS, but also ideology and religion, imposed with force and/or persuasion, secured several recruits for the Sahelian terrorist movement (Crisis Group, 2017: 13). Many were pressured by radicalised friends, others, especially children, would be indoctrinated while attending *madrasas*: they would take on the role of ‘chouffs’ (assistants) in the most diverse criminal activities run by the organization (Seignobos, 2015: 90). Seignobos describes their duties, as follows: “During battles, they cry ‘Allahu Akbar’ in the background to distract adversaries while an attack takes place elsewhere. At the rear of the battle, the children set fires and gather the fruits of pillage. Others epitomize model child

soldiers. As direct armed confrontations decrease, Boko Haram's 'chouffs' — particularly 12- to 16-year-old girls—get involved in terrorist actions, as suicide bombers" (Ibid.).

At first, when trying to find an ethnical pattern in the enlistment process to Boko Haram, people began stigmatizing the Kanuri for being the vast majority of the group's forces. Nonetheless, the only sin they were guilty of, was being the most vulnerable ethnic group in the Lake Chad region. As the Cameroonian expert Aboukar Mahamat highlighted, "Not all Kanuri are Boko Haram, but the majority of Boko Haram is Kanuri" (Audio 3, 9:35). In fact, the jihadist sect took advantage of their poverty, their low school enrolment rates and their rigorous Islamic tradition (Crisis Group, 2017: 15). Their proximity with north-eastern Nigeria also played a role, based on their links in trade, family members, and Quranic education with the Nigerian population. However, during the following years of conflict, the pool became more ethnically diverse, including Chua Arabs, Mandara, Kotoko, Hausa, Maffa, Mada and Kapsiki (Ibid.).

THEORETICAL FRAMEWORK

In the previous chapters, we highlighted different elements and factors, which may have influenced and increased the risk of conflict around the Lake Chad Basin. As explained earlier, there are different consequences of climate change, and these, combined with the presence of Boko Haram in the area, unequivocally result in alterations of the life and traditions of the civil society. As mentioned in the research question, most consideration will be addressed to the youth in the Far-North Cameroon. This country has one of the youngest populations in the world, and the young members living in the Lake Chad region are some of the most vulnerable elements of the society. The purpose of this chapter is to have a clear theoretical framework to enhance a better understanding of their social perspective considered as one of the core topics of this paper. Multiple forces and agents interact in the context of the Far-North Cameroon, and that contributes to increase the complexity of this area. Hence, it is important to choose an adequate lens in order to properly conceptualize the element of youth we want to explore in this dissertation.

Several relevant theoretical concepts from social science will be mentioned in this section, therefore it is important to understand its definition. Collins dictionary explains the discipline, as “the study of society and of the relationship of individual members within society, including economics, history, political science, psychology, anthropology, and sociology” (‘Social science’, 2020). Sociology is defined in a different way: it is “the study of the development, organization, functioning, and classification of human societies” (‘Sociology’, 2020). Anthony Giddens, author of the book ‘Sociology, introductory readings’, describes a more extended interpretation of the term:

“Sociology is concerned with the study of human societies. Now, the notion of society can be formulated in only a very general way. For under the general category of 'societies' we want to include not only the industrialized countries, but large agrarian imperial states (such as the Roman Empire, or traditional China), and, at the other end of the scale, small tribal communities that may comprise only a tiny number of individuals.” (Giddens & Sutton, n.d.: 7)

He found it necessary to provide a more complete version of it, in his work ‘Essential of Sociology’, where he states, that “Sociology is the scientific study of human

social life, groups, and societies. [...] The scope of sociological studies is extremely wide, ranging from the analysis of how people establish social connections with one another in interactions to the investigation of global social processes [...]” (Giddens et al., 2015: 4).

In this broad field of human life, human relations and organizations, this theoretical chapter will specifically explore the concepts of *structure* and *agency*. On the one hand, the meaning of the term ‘structure’ in relation to sociology is explained by the definition from the Encyclopedia of Social Theory: “[s]tructure concerns the relationships among the parts of some social phenomena, and further, how those parts are constituted and the nature of the boundary that mediates between the structure and its environment.” (Harrington et al., 2006: 606). On the other hand, “the term agency typically conveys the volitional, purposive, and intentional aspects of human activity as opposed to its more constrained and determined elements.”(Ibid.: 8). The following paragraphs will propose a brief explanation of the sociological debate towards these two theoretical concepts. We have been inspired by Sherman Tan’s article ‘Understanding the ‘structure’ and the ‘agency’ debate in the Social Science’. This choice was based on Tan’s ability to synthesize in a clear way the main differences between these two sociological concepts. His work is corroborated by the contribution of several prominent authors in the subject, to better understand the meaning and interlinked relation of these terms.

The most fundamental highlights around this debate will be depicted through the statements of different expert scholars, namely the XIX-century French sociologist and philosopher Emile Durkheim, his German colleague Max Weber, and the British sociologist Anthony Giddens. Special attention will be attributed to his Structuration theory from the work ‘The Constitution of Society. Outline of the Theory of Structuration’, to identify the interconnection between structure and agency. This focus is necessary to grasp the phenomenon of youth ‘social mobility’ and ‘social navigation’, proposed by the anthropologist Henrik Vigh. Through this ulterior lens, the reader will better understand youth’s existence in the context of the conflict in the Far-North Cameroon.

Structure and Agency from Durkheim and Weber perspectives

As mentioned earlier, the social theorists Durkheim and Weber provide opposing weights to the argument of structure and agency. Tan exposes both perspectives in detail, highlighting the emphasis these leading scholars put on the subject. He begins with the interpretation of Structure given by Emile Durkheim, stating that the “structure of society exists above and over human action, and it is the former which exerts a unidirectional force on the latter.” (Tan, 2011: 39).

Subsequently, Tan presents the position of Max Weber, whose focus lies on the human action instead (Tan, 2011: 41). According to Tan’s extensive analysis of the structure and agency debate, Weber is convinced, that “individuals reason and decide on certain actions through micro-level processes of interaction and meaning-orientation. The individual is not a static entity who is inscribed on by powerful social forces, rather, he/she is a dynamic, rational, and motivated actor in any given social context.” (Tan, 2011 : 42).

The contrast between these two perspectives demonstrates the lack of reliability of one instead of the other, leading to the evolution of a third school. With Giddens as the guide of it, structure and agency are perceived as two elements intertwined and related in the society, neither having ultimate supremacy over the other. In his words, “The constitution of agents and structures are not two independently given sets of phenomena, a dualism, but represent a duality. According to the notion of the duality of structure, the structural properties of social systems are both medium and outcome of the practices that recursively organize.”

The pitfalls present in both Durkheim’s and Weber’s approaches provide overemphasis on a single side of a two-sided coin. Hence, to avoid this inconvenience, this paper will follow Giddens’ approach. By doing so, a more complete picture of the role of youngsters in the Cameroonian society of the North, affected by the impacts of climate change and conflict, will be illuminated.

Anthony Giddens' Structuration theory:

The concept of Structure and duality

The 'Structure' is an essential element of Giddens' study of social theory. As it has been already mentioned in the chapter's introduction, the structure as a theoretical concept, concerns the relationships between the parts of social phenomena, the components of those parts and the nature of the boundary that mediates between the structure and its environment (Harrington et al., 2006: 606). It will therefore refer to the nature of these parts and the limits that exist between the structure and its surrounding environment.

Giddens' definition of structure refers to the "structuring properties allowing the 'binding' of time and space in social systems, the properties which make it possible for discernibly similar social practices to exist across varying spans of time and space and which lend them 'systemic' form." (Giddens, 1984 : 17). In this definition he highlights the implication in this concept of certain structuring properties, which permit the inalterability of time and space in a social system. These properties allow certain social practices to survive across time and space, giving them what he calls 'systemic form' (Ibid.). By using the term 'systemic form', he means something, which repeats itself systematically.

He continues: " To say that structure is a 'virtual order' of transformative relations means that social systems, as reproduced social practices, do not have 'structures' but rather exhibit 'structural properties' and that structure exists, as time-space presence, only in its instantiations in such practices and as memory traces orienting the conduct of knowledgeable human agents." (Ibid.). More specifically, Giddens sees the structure as a non-visible order of relations, constantly changing. In this sense, they are made of constantly repeated social practices, recognised by the members of the society forming a social system. When he refers to social practices, he implies "[...] practices which have the greatest time-space extension within such totalities can be referred to as institutions" (Ibid.).

As an example, the reader can think about a love relationship. People fall in love and if the relationship is strong enough, it may turn into a marriage. But what is a marriage? It can be classified as a social practice, recognized by its members as an institutional one, to codify the long relations of love between two individuals.

The marriage conceived as an institution, comes from far back in both space and time. However, it still has great social value nowadays, mainly because it is still honoured and accepted by the present society. How do the members of a present society replicate a social practice that is much older than them? This is because, following Giddens reasoning, the “[...] awareness of social rules, expressed first and foremost in practical consciousness, is the very core of that 'knowledgeability' which specifically characterizes human agent.” (Ibid.: 21-22). Going back to the example portrayed above, the act of recognition given by the couple in love to marriage is what Giddens calls a ‘social rule’. He further explains what these rules represent: “Those types of rule which are of most significance for social theory are locked into the reproduction of institutionalized practices, that is, practices most deeply sedimented in time-space.” (Ibid.: 22).

All these points highlighted above, constitute the main elements of the structure: “The most important aspects of structure are rules and resources recursively involved in institutions. Institutions by definition are the more enduring features of social life. In speaking of the structural properties of social systems I mean their institutionalized features, giving 'solidity' across time and space. I use the concept of 'structures' to get at relations of transformation and mediation which are the 'circuit switches' underlying observed conditions of system reproduction.” (Ibid.: 24). In other words, rules and resources are the means through which social practises get institutionalized. Once social practises become institution, they are named, in Giddens’ terms, structural properties of the social system, which are solid and resilient to time and space. The word structure is used in the sense of highlighting the relations between transformation and mediation of social system.

To conclude this process of reasoning, the sociologist claims, that: “Crucial to the idea of structuration is the theorem of the duality of structure [...] The constitution of agents and structures are not two independently given sets of phenomena, a dualism, but represent a duality. According to the notion of the duality of structure, the structural properties of social systems are both medium and outcome of the practices they recursively organize” (Ibid.: 25). Giddens Structuration theory will help to highlight how “Structure is not 'external' to individuals [...] Structure is not to be equated with constraint but is always both constraining and enabling.” (Ibid. : 25).

The concept of Agency and the impact of reflexivity

One of the subjects of this study are the young elements composing the society of the Far-North Cameroon. In relation to their social position, we try to apply Giddens' reflections on their context: he believes, that "to be a human being is to be a purposive agent, who both has reasons for his or her activities and is able, if asked, to elaborate discursively upon those reasons." (Giddens, 1984 : 3). In fact, the youth of the Cameroonian region under examination has both reasons for their actions and purposes to defend their reasons. For example, they might want to marry and have a family because this allows them to improve their social status within their society.

Giddens further elaborates: "Human action occurs as a *durée*, a continuous flow of conduct, as does cognition. Purposive action is not composed of an aggregate or series of separate intentions, reasons and motives." (Ibid.). In other words, human beings continuously make decisions that could lead them to achieving their goals, while structural inputs may still affect their agency. With each additional input, these agents modify and defend their decisions, demonstrating what Giddens calls *reflexivity*. Giddens expresses the concept of "[...] reflexivity as grounded in the continuous monitoring of action which human beings display and expect others to display." (Ibid.). Whereas, the Encyclopedia of Social Theory, "[...]refers to the human ability to reflect upon our attitudes and behaviours, and in the light of new experiences, change the ways we think and act in the world. In sociological theory this concept has featured heavily in debates over the potential for institutions, individuals and social institutions to engage in a conscious and deliberate process of social transformation." (Harrington et al., 2006: 501). Reflexivity is an important concept in understanding the agent and his/her action; it is the mean through which the agent is aware of his/her actions, as well as the others'.

Let us consider the case of a young 15-year-old Cameroonian, living in the rural areas of the Lake Chad Basin. When his family of farmers was not able to collect enough money from the harvest of last year, him and his siblings found themselves struggling for hunger. As a consequence, the young man reflects upon this new situation of distress and realises that he cannot depend on his family anymore. In order to continue to apply his agency, he chooses to invest his body and energies in a small urban market. This job requires a lot of physical effort,

nevertheless, the young is applying his agency in terms of deciding what to do, in this case, with his time and his only source of ‘power’: his body. Such jobs provide a degree of stability while contributing to the informal economy. Let us assume, however, that his salary is not sufficient to feed both him and his siblings. The youngster will be keen on accepting a free meal, in some cases, offered by madrasas. His initial intention was not to get a free meal in a Koranic school, but by doing so, he is still applying his agency. He can also justify his choice, *a posteriori*, saying that he was looking for something to eat.

This example portrays what the sociologist Giddens reiterates in this extract on Agency:

“Agency concerns events of which an individual is the perpetrator, in the sense that the individual could, at any phase in a given sequence of conduct, have acted differently. Whatever happened would not have happened if that individual had not intervened. Action is a continuous process, a flow, in which the reflexive monitoring is maintained by the individual. It is fundamental to the control of the body that actors ordinarily sustain throughout their day-to-day lives” (Giddens, 1984: 9).

When looking at how climate change affects the social system in which the young Cameroonians, our agents, live, Boko Haram’s influence on their agency will be central. In particular, a reflection will be elaborated on how it affects their ‘continuous flow of conduct’. For example, how it will impact the successive and evolving actions they take to achieve a goal such as marriage, or other recognised social institutions.

Henrik Vigh’s elements of Social Mobility:

Youth’s social navigation to escape social death

After having analysed the more abstract concepts of structure and agency that Giddens portrayed, a step forward will be taken by presenting how Henrik Vigh interprets youth in a conflictual reality. In order to do so, the theoretical concepts of social navigation and social death will be depicted. Such sociological insights will be useful to analyse the role of young people in the Far-North Cameroon, at a second stage.

In the work ‘Social Death and Violent Life Chances’, Vigh focuses on “the mobilisation of urban youth in West Africa and analyses their engagement in conflict as social navigation.” (Vigh, 2006: 31). To better contextualize his research, his fieldwork was conducted with former young militia soldiers (the *Aguntas*), recruited during the civil war in Guinea Bissau of 1998-1999 (Ibid.: 32). Vigh’s study highlights how youth manages to ‘navigate’ in such a volatile context, while trying to apply their agency. This empirical setting is interesting for the purposes of this paper, because it shows how critical circumstances can lead youth to choose violence, as a way to escape from what Vigh calls a ‘social death’(Ibid.). It is referred by Vigh, through the words of the anthropologist Ghassan Hage, as the “absence of the possibility of a worthy life” (Ibid.: 45).

At the very core of Vigh’s research is the youth. According to the United Nations, youth is conceived “[...] as those persons between the ages of 15 and 24 years, without prejudice to other definitions by Member States.” (General Assembly Resolution, A/RES/50/81, 1995). This definition is generally accepted by the UN for research and statistical purpose. A deeper understanding of this term can be grasped in the research ‘Youth, Revolt, Recognition’, presented by the scholar Isabel Schäfer: “Youth is a period of life in-between childhood and adulthood. It is described as a time of experimenting with roles and identities, still void of the burden of social norms and obligations, yet slowly preparing the youngsters for their lives as full members of the social collective.” (Schäfer, 2015: 5). In this sense, the notion of youth is placed in the context of the society or, using Giddens’ words, of a social system.

Youth implies an aggregate of young people that can be considered as agents; they find themselves in a phase of human life, preparing to become entirely part of their society. Indeed, the meaning of youth is also related to the social context and culture in which they are placed in. Vigh’s perspective around the word ‘youth’ is: “[...] this concept has as such been studied either as an entity in itself; that is a socially and culturally demarcated unit producing a ‘sub-culture’ [...] youth constitute a demarcated site of construction of ideas and praxis [...]” (Vigh, 2006: 34). Thus, the expression ‘youth’ does not only represent a time indicator of human life, but it contains in itself, depending on the social context, other social and cultural meanings. In his study, Henrik Vigh focused also on young people’s

capability of pursuing their lives: “[...] the definition of ‘what youth is’ depends not only on research traditions and the context the category is researched in but on ‘what youth are able to do’ in the given context.” (Ibid.: 35). In the context of poverty and conflict depicted in this dissertation, youngsters find it hard to apply their agency. Nevertheless, as agents in a society, they somehow succeed in exercising their agency, even if in a more limited way. By doing this, they embark on a series of actions that put them in motion, or, as Vigh would say, they go through a process of ‘social navigation’. Before approaching this concept, it is firstly fundamental to understand what this kind of mobilization means, in order to motivate the life choices these youngsters make.

In ‘The new mobilities paradigm for a live sociology’, Mimi Sheller quotes the scholars Seymour Martin Lipset and Reinhard Bendix, who defined ‘social mobility’, as: “...the process by which individuals move from one position to another in society – positions which by general consent have been given specific hierarchical values. When we study social mobility we analyse the movement of individuals from positions possessing a certain rank to positions either higher or lower in the social system”(Sheller, 2014: 791). The movement occurs between positions (higher or lower) in the social ladder of a social system. This of course gives a different connotation to the space, which is not physical anymore, but as Sheller states: “space is treated as an empty container for social processes, even if geographical movement may effect prospects for social mobility.” (Ibid.). In this sense, social mobility is not a spatial ability to physically move. The concept expresses rather the ability of an agent to move in the social structure in which he/she is present, in order to express his/her will. The purpose is to achieve a higher rank in the social structure. This will give the agent higher agency capabilities, gained by a higher status and recognized among the members of his/her context through cultural, moral and social values.

Vigh interacted with different examples of young individuals during his fieldwork, who are not able to achieve a higher position in their social system. One of the youngsters Vigh interviewed, told him : “I want to be the man of my [own] head. I want to be a man of respect, a complete man, complete. You understand? I want to have my own house, children, a wife. I want a job. If you have this then no one can tell you that you are young. You will have your own family, your own job.

If you are a complete man then you are the [sole] force of your head.” (Vigh, 2006: 40). In this passage, this young man is trying to affirm his wish to achieve a higher status in his social system. The elements that seem missing to the interlocutor are the means, or material assets, through which he intends to accomplish a better social position. These would help him in the attempt to obtain the status of ‘man’.

After having stated what is understood by social mobility, it is easier to elucidate Vigh’s concept of ‘social navigation’: “[...]the concept of social navigation provides insights into exactly this interplay between objective structures and subjective agency. It enables us to make sense of the opportunistic, sometimes fatalistic, and tactical ways in which youth struggle to expand the horizons of possibility in a world of conflict, turmoil, and diminishing resources [...]”(Vigh, 2006: 55). For instance, a youngster in the reality of Guinea Bissau mobilizes himself in order to match with the social structure, and to fit in the values of the social system in which he finds himself. In a situation of conflict and lack of resources, this process of navigating in a social system can be very challenging. For a young man, it may mean to engage in violent activities, in order to apply his agency. To further corroborate the understanding of such a condition, Vigh asserts, that: “In order to make sense of the mobilisation of the Agentas we need in other words to relate their engagement in war to the space of minimal life chances they are confined to [...]” (Vigh, 2006:55).

With his research, Henrik Vigh wanted to shed light on a category of youth in Guinea Bissau, struggling to pursue its livelihoods and trying to navigate the critical social context, in which they are confined. He concludes that, to engage in violence and conflict is the last or ultimate chance of escaping social death.

Later in this thesis, this theoretical framework will serve as a tool to delineate the behaviour of youth in the Northernmost region of Cameroon, in the proximities of the lake Chad. In this context, the youth’s strategies to apply their agency will be analysed, focusing on how they navigate a reality characterized by lack of food and life security, where they still have to avoid social death.

ANALYSIS

This analysis chapter will follow the pattern the research question suggested in the problem definition section of the thesis Introduction.

In which ways climate change affects, amongst other things, the conflict in the Lake Chad Basin and which is the role of youth in this crisis trap in the Far-North Cameroon?

By dividing the former in two sections, two different analytical spaces will be developed. The first one will focus on the effects of climate change on the population, its interactions with the environment and the consequential rise of conflict risk. The second, will connect the theoretical concept of youth to the dimension and the circumstances of the youth of the Far-North Cameroon. This process will only be possible through the combination of the findings gathered with the help of both quantitative and qualitative data. The latter will consist of the statements collected during the conduction of semi-structured interviews, with three experts of the Lake Chad Basin crisis. The material provided will be available for further consultation in the appendices. The purpose of this thesis section is to openly define the points that this research revealed, while giving a thorough response to the inquiries that stimulated the beginning of this very research.

Climate change effects on the LCB crisis context

According to the results of several studies on the Sahel, the increase in the Sea Surface Temperatures, together with the CO₂ global emissions, impacted on the frequency and the intensity of precipitations. The pattern of rainfall became more unpredictable as a result of climate change (Pham-Duc et al., 2020: 2). As reported in the context chapter, the climate scientist Alessandra Giannini claimed that, while the rainfall seasonal amounts might have recovered, precipitation events were more intense, but concentrated in a shorter time frame (Giannini, 2015: 721). As a confirmation to her argument, the interviewee Hycinth Banseka denounced the increasing phenomenon of shifting in the rainy seasons in the Far-North Cameroon (Audio 1, 26:02-34:00). Moreover, he stated that this affected the groundwater levels, making them drop, consecutively impacting the whole hydro-geological cycle (Ibid.: 39:00-49:00). Another opinion to consider aligned with this argument, is the one of Aboukar Mahamat, who underlined the fact that people in the LCB are totally

dependent on the climate and its pluviometry; therefore, he sustains that even if infrastructures, such as dams, are created, it might not be sufficient to diminish their vulnerability in front of climate change (Audio 3, 37:03-37:35). His affirmation is reiterated also in the discourse about the socio-economic perspective of the inhabitants of the LCB (page 27/28 of this paper). The vast majority of them live in rural areas, and rely on the surrounding natural resources for most activities granting them revenue. When such resources start degrading and being scarce, as Mahamat suggested, the consequence for them is poverty (Audio 3, 24:22).

A central finding that characterized this research was also the assessment of lake Chad's water level susceptibility, as its main reaction to climatic variations. What its decadal evolution showed from the 1960s until nowadays is that its surface shrinkage was only the demonstration of a bigger problem. In fact, as it was clearly explained by the researcher Magrin in many of his works, we should not focus on the risk of its disappearance, but rather, on the unpredictability of its variations (Magrin, 2016; Magrin et De Montclos, 2018). The origins of the public alarmism spread on its precarious conditions could be traced back to the periodical intra-annual droughts, as well as the reduced seasonal riverine water-contributions occurred in the past four decades (Nagarajan et al., 2018: 20). The researchers Brown and Vivekananda confirmed the result of our document analysis for *The Guardian*, claiming that: "Temperatures in the region are rising one and a half times faster than the global average. The unpredictability brought by climate change is worsening the political and economic conditions that gave rise to the violence in the first place. But, so far at least, it is not happening due to a shrinking lake" (Brown & Vivekananda, 2019).

The fragility of this resource was also highlighted as a real issue by the interviewed expert Aminou Bala, who anyway attested that the lake's shrinking water situation improved in the past 5/10 years (Audio 2, 13:23-16:04). He further insisted that the Lake Chad Basin should be at the centre of the international community's concerns, to understand how we can ensure the sustainability of its resources and the livelihoods of the people who depend on it (Ibid., 5:41-7:43). Also Mahamat backed the fact that the lake Chad is not the same as 30/40 years ago (Audio 3, 27:45-28:25). He presents the example of the Cameroonian village Hilé Alifa, which used to be on the shores of the lake during the past century, and now

only the old measurements of its water levels remain visible on the walls of the houses (Ibid.).

What was additionally detected while comparing both quantitative and qualitative data, was the anthropogenic impact on the environment of the Far-North. This has progressively contributed to exacerbate certain processes of environmental degradation in the drylands of the Sahel, such as desertification, already initiated by climate change. Due to the constant demographic increase of the population and the reduced availability of natural resources, more intensive and harmful practices of farming and grazing were adopted. Besides, the need for wood augmented as well, responding to a higher demand for domestic usage, but boosting the phenomenon of deforestation (Berger, 2011: 22) (Audio 1, 39:00-49:00). Bala expressed himself on the specific case of the lake Chad by criticizing human activities, exploiting the richness of the lake in a non-sustainable way (Audio 2, 5:41-7:43). The example that Mahamat brings of fishermen, complaining for the insufficient fish while not adopting less harming methods to their reproduction, is poignant (Audio 3, 29:00-30:15). The expert Bala continued on this topic, asserting that, although several international organizations are implementing development projects in the area, unsustainable practices are still perpetrated (Audio 2, 38:47-41:00). Their action of transferring and sharing knowhow, technologies and capacity building is still not enough to prevent all the people from harming the ecosystem (Ibid.). In Bala's opinion, referring to these competences in the fishing industry, "at this stage, you cannot say that you are not aware" (Ibid., 38:47-41:00).

Another crucial point that was emphasized throughout the whole process of this research was the correlation between climate change and conflict. Several studies presented in the previous chapters supported the existence of a relationship of the former with the latter, in different proportions (Page 13-14/16). Climate change is a factor capable of heightening conflict risks, by enhancing pre-existing pressures in a region (Nagarajan et al., 2018). By doing so, it aggravates already fragile situations and may contribute to social upheaval and even violent conflict (Nett & Rüttinger, 2016: 1). More precisely, "Climate-related hazards, variability and change can cause economic shocks through effects on agricultural productivity or food prices, or through the direct and indirect consequences of disasters such as floods, droughts, heat waves or cyclones." (Mach et al., 2019: 195). When looking

at the particular case of the Islamist terrorist group JAS' insurgency in the Lake Chad region, Luc Gnacadja, former UN desertification chief and Benin environment minister, declared that: "From outside, we can easily read it as just a religious fight, when actually it is about access to vital resources [...] The so-called religious fight is a layer above those conflicts around resources [...] It is not just about Boko Haram, but in the Sahel belt you will see it is almost the same challenge in Mali and in Sudan." (Darby, 2015).

All three interviewed experts commented on the definition of climate change as a 'threat multiplier': Banseka identified the issues of conflict and climatic variability and claimed, that "if you combine those two factors, you have a recipe for disaster" (Audio 1, 13:15-18:31). From a more economic perspective, Bala underlined the danger that the rising temperatures, the shifting of the rainy seasons and the consequential reduction of resources can represent for the local labour market (Audio 2, 20:57-23:32). Banseka further affirms that "the climate affects mostly agriculture. There is one time of the year when people put seeds in the ground. If they miss it for the unpredictability of the rainy season the entire farming year fails." (Audio 1, 35:50-39:00). This means that, when people see their livelihoods being destroyed and have no alternatives remaining, an escalation to violence is more likely to happen (Ibid.). Similarly, the Adelphi researcher Janani Vivekananda declared for Climate Diplomacy: "The unpredictability of rains means that people are just giving up [...] After the third or fourth failed harvest, not knowing when to switch from fishing to farming, the offer of a livelihood of food every day and business loans becomes more attractive". (Sauer, 2019). In the latter statement, she refers to the advantages that joining the ranks of Boko Haram might mean. Indeed, after several failed attempts of succeeding in the agricultural sector, according to Vivekananda, it seems like a promising choice to move towards a different source of income.

When the conflict is already raging, like it has been in the LCB during the last decade, certain changes in the landscape and in the distribution of natural resources can perpetuate the clash. The forces participating in the conflict can take advantage of the new circumstances created by the climatic variations, exploiting the desperation of the people, resulting from their belligerent actions. For instance, Bala explained that the growth of vegetation in certain areas of the lake Chad, not

only prevented the normal population from getting access to the water, but it also provided a safe refuge for the terrorists (Audio 2, 20:57-23:32). As a consequence, their occupation of large territories, including open waters, islands and marshlands, automatically denied the access of the available resources to the locals. Both experts Mahamat and Bala collected the witnesses of fishermen working on the lake waters, saying that Boko Haram had taken control of the fish market in some districts of the lake (Audio 3, 21:13-24:16) (Audio 2, 30.53-32.29). Apparently, the practice of fishing was forbidden in that area for some time, so when Boko Haram arrived, there were considerable amounts of fish in the waters (Ibid.). The sect realized that by allowing the local fishermen access to that controlled resource, they could create a lucrative regulation system, giving them the permission to fish in exchange for the payment of a tax (fuel, with food supplies) (Ibid.). According to Mahamat, this taxation model was similarly reproduced also to pasturelands with herders (Audio 3, 24:16-25:18).

The conflict risk, generated by the volatile climatic situation, can arise non only between State and Non-State Armed Groups. As a matter of fact, different communities within the LCB population, namely fishermen, herders and farmers, find themselves disputing with each other on the contention of a shared but scarce resource. The expert Mahamat named the case of Musgum and Kotoko ethnic groups that migrated from the Logone plain in the Far-North to the lake Chad shores, when their native landscape became too dry to practice fishing (Audio 3, 32:30-33:20). Their arrival provoked a wave of hostility among the local villagers, who considered their presence invasive and their intentions as merely exploitative, but unsustainable (Ibid.). He reflects on this phenomenon, affirming that: "Climate change is the origin of migration and lack of resources. People adopt behaviours that increase more and more the pressure on the resource, which at the same time creates pressure between the groups of its users" (Audio 3, 34:07-35:00).

The most commonly known minor rivalries witnessed in the Lake Chad region are the ones between pastoralists and agriculturalists, as it was also confirmed by Bala (Audio 2, 24:40-26:52). Their clashes are often due to the degradation of accessible territories for cultivating and grazing, or for the grabbing of new flood recession lands (Ibid., 35:07-36:40). According to Bala, allegedly, even the forces of Boko Haram are trying to benefit from this tense atmosphere by telling to support

one cause or the other, to convince the members of one or another party to join them, extrapolate information or gain trust (Audio 2, 29:23-30:15).

The youth in the Far-North Cameroon

“When you consider climate change as it is, it affects directly or indirectly the basin; the rising temperature, the shifting of the rainy seasons (which are becoming more unpredictable every year), has led to drastic reduction of natural resources. These are necessary for people to pursue their livelihood. So, if the natural resources are no longer there, the locals have to do other things” (Audio 2, 20:57-23:32).

The local perspective that Bala depicted of the LCB is complete when the factor of war is added to the scenario. In fact, as the Berlin-based think tank Adelphi assessed in the report *Shoring up stability: Addressing Climate & Fragility Risks in the Lake Chad Region*: “Climate change [...] both worsened the conditions at the root of conflicts, and undermined communities’ ability to deal with them” (Sauer, 2019). Furthermore, it is fundamental to remember that of 25,640,965 million, 42% of Cameroon’s population is between 0 and 14 years-old, and 19.6% between 15 and 25 (Cameroon Demographics Profile, 2019). This means that more than 60% is below the age of 25 (0-14 years: 42.15% (Ibid.)). In the attempt to answer the research question, this section of the analysis will be solely dedicated to shaping the role of youth, directly affected by the above-described ‘crisis trap’. In order to do so, the theoretical approach articulated earlier in this dissertation will be applied to the object of this analysis: the youth of the Far-North Cameroon.

As individuals, or better, human agents, also young Cameroonians are bound to a set of social structures internal to their social system. A general, and more abstract, description of African society was provided by the respectively South-African and British anthropologists Meyer Fortes and Edward Evans-Pritchard:

“African society [operates] in the frame of a body of interconnected moral and legal norms[,] the order and stability of which is maintained by the political organization. [...] They think and feel about [their social system] in terms of values which reflect, in doctrine and symbol, but do not explain, the forces that really control their social behavior.” (Fortes & Evans-Pritchard, 2015: 21).

The absence of control on one's social behavior, shaped by culture, language, habits and beliefs, implies that all social relations can be understood as a "flow of life that precedes individual entity" (Reynolds et al., 2008: 2). In other words, it is the very relations the agents of a society have with each other, that make them persons (Ibid.). Successively, when reflecting on the nature of the identity of a young individual, the elements that characterize it are intrinsic in the perception other people have of him/her. In the case of the social category of youth, its members automatically acquire certain features, which were commonly accepted even before their existence, and therefore define them a priori.

"Contrary to the Western view that youth is the most desirable station in life, adolescent Africans hunger after the age, which will endow them with, an authority currently denied." (Chabal and Daloz, 1999: 34). They live in a social context, where being elderly, means to have respect and social recognition, like it would in a gerontocracy¹⁶. This pushes them to constantly look for their place in society, a direction in life that can separate them from the less-dignifying label of youngsters. This type of conduct is justified by the following statement of Henrik Vigh: "We all navigate our lives along multiple trajectories of social becoming related to culturally defined and socially prescribed and/or desired ideas of personhood." (Vigh, 2006: 56).

The youth of Far-North Cameroon are constantly observing their existence. Following Giddens' reasoning, they are stuck in an everyday life they see all the time, but they do not accept. In fact, what they continually see and monitor, practicing Giddens' reflexivity (Giddens, 1984: 3), is a reality that does not reflect what they had hoped for. What could be a positive social position, in which you are free to build a life for yourself, is lived as a position of social and political immaturity (Vigh, 2006: 35/36). This discrepancy with what they would wish and what is actually available for them is amplified by the access they have to social media and world's information.

While they see what they could become, they also recognize their situation of stuckness, otherwise called by Hage 'social death', caused by the increasing lack of opportunities around them. This existential condition, characterized by the "absence

¹⁶ "Gerontocracy is a society where leadership is reserved for elders" (Gerontocracy, 2019. The Encyclopedia of World Problems and Human Potential).

of possibility of a worthy life” (Hage, 2003: 132), applies to them in different ways. When young men look at their future, they hardly see themselves having the same lives their parents had. Mahamat confirmed the fact that young Cameroonians want to break with the present system, because they perceive its weaknesses (Audio 3, 4:30-7:50). They are trying to find a way to fit into the social structure, but the consequences of conflict and climate change on their region hinder their capabilities to do so.

In order to realise themselves as social beings, these youngsters reflect on what they are able to do in the given context. It is clear that embracing the same techniques to pursue their livelihoods their parents would, is becoming harder and harder. According to Banseka, a young man with limited access to natural resources and without having received a proper education, can always join the informal trade or work in a construction site (Audio 1, 1:08.07-1:09.23). These menial jobs are the few alternatives they can get, though, they cannot restore their status in the society (Ibid.). Aboukar Mahamat also mentions this category of workers in the context of the city of Maroua: moving from the rural areas to the urban agglomerates, these youngsters look for a job without bringing any skill or expertise with them (Audio 3, 44:23-51:32). Hence, they end up being in competition with the urban youth, who used to do the humble jobs they are seeking (Ibid.).

Some young Cameroonians actually see in the terrorist group Boko Haram a potential life strategy, an alternative way to navigate in life, similar to the militia in Guinea-Bissau portrayed by Vigh (Vigh, 2006: 32). In the LCB context, Boko Haram is perceived by youth as an opportunity to exercise their agency, and to overturn the social norms imposed by society. It offers a hyper-modern way to conduct life, disentangled from the old ways of living. This happens, as described by Mahamat, when you join an armed group, such as JAS, and someone puts a weapon in your hands (Audio 3, 9:35-12:00). The sense of empowerment it gives, makes the youngster entitled to demand respect. He literally says: “It is not a matter of ideology, but rather the curiosity for the profession, the excitement of being part of a gang.” (Ibid.). In a way, Boko Haram appears to the youth joining it as a chance to move out of the old structure, subverting the traditional hierarchy and obtaining a social status, otherwise impossible to reach as a young man. The magnetism this lifestyle generates is linked to the excitement of warfare, typically felt by young

men, as well as the material and financial baits the sect assures to the new recruits. In fact, as Banseka reminded, “this conflict feeds on people who have limited access to resources. It feeds on the poor.” (Audio 1, 1:10.23-1.13:44).

Aminou Bala, on the one hand, believes that Boko Haram is mainly perceived by youth in the Far-North as a threat to their livelihood, except for when it disguises as the ultimate opportunity on the horizon (Audio 2, 52:05-57:00). In his opinion, youth is a great resource for the countries bordering the lake Chad, it only needs proper education and capacity building, to become more resilient (Ibid., 49:23-51:48). On the other hand, Banseka insisted on the fact that formal education is not essential, because as long as you make your choices, “how hard working you are is what will take you wherever you want” (Audio 1, 1:14.57). The critique that Mahamat brings to the professional institutions of the region, is the limiting factor of insecurity: living in a conflict area, means that going to school or practicing a profession becomes extremely dangerous (Audio 3, 1:49-2:22). Moreover, he mentions the eventuality of either not selling the final products because markets are closed (for security reasons) or end up selling them off, as they are too raw to make much money out of them (Ibid.).

After all, as the environmentalist Bala admitted during the interview, as long as the Lake Chad region is not secure for its population, it does not make sense to think about economic development, nor sustainability (Audio 2, 8.00-9.41).

DISCUSSION

Starting from the hypothesis that climate change could be an aggravating factor for the outbreak of conflicts, this study tried to present all the most relevant angles from which it could affect the conflict, in the particular scope of the Lake Chad Basin. Thanks to the research of several scientists and the witness of the three interviewed experts, it was possible to properly substantiate this assumption. In the specific, it was highlighted that the enhanced variability in timing and amount of precipitation characterizing that region, deeply impacted livelihoods and food security. Moreover, the unpredictability in the changes of the lake water levels diminished the locals' ability to arrange how, when and what to farm, fish and cultivate. Their implementation of non-sustainable practices of environmental exploitation, was proved to be deleterious to the landscape. Also the occurrence of droughts and soil erosion amplified negative effects on the population, which seemed progressively less capable to adapt and cope with such unforeseen events. In a way, the changing climate intensified the already precarious conditions of the people inhabiting the Sahelian region. The low socio-economic development, the power vacuum caused by a disinterested governmental elite, as well as the growing demographic pressure on the already scarce resources, are all elements of the Sahelian region that contributed to build a negative spiral of distress and tension among the people. The combination of these enounced circumstances created a context favourable for the proliferation of the criminal organization Boko Haram. The conflict exploded as a consequence of climate change' aggravating action on previously mentioned drivers. This, in turn, proves the centrality of this environmental phenomenon in this research. This thesis wants to play a role of reminder to the public by underlining the necessity of looking at climate change as well, when analysing the factors that triggered a conflict. However, it also provides much inspiration for deeper investigation on a subject that has so far only been partially explored. It is very recently that academia began dedicating more attention to this otherwise known as a marginal driver to a conflict. Its obvious complexity and the lack of many publicly trusted figures taking an open position on the matter, continue representing great obstacles to this sphere of research. Nevertheless, this should not stop academia from trying to seize a phenomenon that is clearly already affecting millions of people.

The reason why such importance should be granted to the study of climate change is because it is not a problem solvable in the short term. On the contrary, its impact is already disrupting the existence of the future generations living in the LCB. These are represented by the social category of youth, whose agency is being more and more limited by the previously described context of crisis. During the past 10 years of tensions, thousands of young people from the Far-North Cameroon have come to terms with the fact that their only escape route from both social (and actual) death was becoming the perpetrators of serious acts of cruelty against their own people. Even if they might not have had the intention, they reached a point, in which their agency was so limited that the only feasible way to pursue their livelihood consisted in becoming an element fuelling the conflict. If on the one hand, Giddens theoretical concepts of structure and agency have an equal weight in building the social system, on the other hand, the context of the Far-North grasped a more complicated situation.

The research conducted also proves how essential it was to observe the clashing context of the LCB with an interdisciplinary approach: its inextricable interconnectedness between changing climate, conflict and youth, as a key social component for future scenarios, raised multiple concerns within the international community. When looking at the already ongoing humanitarian crisis, it presages the possibility of reaching a greater catastrophe than the one in Darfur. Therefore, it is also of paramount importance that the regional Governments, as well as international organizations, address this context with the due cautiousness and care.

CONCLUSION

At the beginning of this thesis, in the Contextualization chapter, the findings from the Stanford study confirmed the assumption that a changing climate can negatively affect a situation of tension, that is already or is about to become a violent conflict (see pages 13-15). Moreover, in order to frame the phenomenon into the geographic scope delimited by the research question, the shifts in the climatic trends of the sub-Saharan area of Sahel were briefly described. The effects of anthropogenic interventions on the environment were also taken under analysis, to underline the ‘complicity’ of the world’s population and the local one in the acceleration of natural resources’ degradation. The example of the Sudanese civil war in Darfur served as a means to display the consequences a neglected Sahelian scenario, similar to the region of Lake Chad, can endure (see pages 19-20).

The data evolution of the environmental characteristics of Lake Chad further described the factors that have to be considered, when researching on climate change in that hydrological basin. By observing the lake Chad and the way it affected the socio-economic and political landscape of the region’s population, the major climatic and non-climatic stressors were identified. Their increasingly disturbing effect on people, combined with the ambitions of the increasingly widespread extremist organization Boko Haram, resulted in a violent clash between state and non-state armed groups. To better understand the progressive spreading of this brutal movement among the societies around the lake, as well as the involvement of youth in the conflict, the theoretical chapter of this dissertation was crucial.

The selected theory of social structuration portrayed by Giddens demanded a necessary reflection on the characteristics of a society. It was perceived as a social system made of dynamic agents, whose conducts are oriented by commonly respected social practices and beliefs. This abstract interpretation of social reality played a major role in creating a background for the more specific theoretical approach to youth, proposed by the anthropologist Henrik Vigh. His analysis of the particular case of youngsters navigating in an unstable context of warfare was essential to complete the sociological discourse around youth.

A thorough analysis highlighted the main findings of this research process. In particular the researchers, by cross-checking the quantitative data on climate change

effects and the qualitative ones collected through the interviews, displayed some interesting results. In fact, on the one hand, the data evidencing climatic variations showed how the change of the rainy seasons, soil erosion and rising temperatures are threatening the most important means of livelihood for the Far-Northern population. On the other hand, it is clear how the challenging conditions of the population contributed to exacerbate an already existing conflict, perpetuating it. Youth are an important component in this context. They seem to be the most affected by the dynamics depicted above. This research attempted to demonstrate how their agency faces a ‘double threat’ composed of the environmental changes that threaten their livelihood and the presence of Boko Haram, which may find in youth a good asset to maintain its power. The former heavily conditions their agency and the one of their families. The latter is generally a threat, but as some of the interviews displayed, it can also represent youngsters’ best or sometimes, only path to navigate away from immobility, and social death.

Hence, it would be interesting and relevant to conduct further research in this field, looking at the experience of youth escaping conflict and violence. When reflecting on future scenarios, it would be relevant to investigate the impact that the conflict, after decades under the influence of Boko Haram, could have on youth agency. For instance, such questions still need an answer: How would years of violence reshape youth agency, after the illusion of escaping social death? How will they cope with the still ongoing environmental change? Will the local governance engage in inclusive, wise and farsighted policies to break the crisis trap of the Lake Chad region? All these answers would be relevant in order to implement accurate long-term social and resource management projects in the Far-North Cameroon.

In a way, the scope of this investigation recalled the necessity of incorporating climate change resilience in the peacebuilding agendas of the countries surrounding the lake Chad. The importance of the resource capital characterizing its basin has been shadowed by nearly 10 years of devastating conflict. It is evident that this territory should obtain more international attention, for the intrinsic complexity built by all phenomena interacting in this very context. Quoting Magrin’s words, “Lake Chad needs to be seen more as a model of the challenges facing Sahelian Africa than for its exceptional lacustrine characteristics” (Magrin, 2016: 218).

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