

THE INFLUENCE OF THE SHRINKING OF LAKE CHAD ON LIVELIHOOD, CONFLICT AND MIGRATION



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Preface

This bachelorthesis was written to finish the bachelor Geography, Planning and Environment at the Radboud University Nijmegen. I chose this topic because during my studying period, I was always interested in issues about conflict and migration. I chose the Lake Chad region specifically because during earlier courses of the study, I had focused on this region as well. The Lake Chad region is interesting because of the different dynamics going on here, for example it being a border region and the aspect of climate change.

I found it quite hard to write this thesis, as it was my first written essay of this length, but I have learned a lot from it and I enjoyed progressing the thesis in the process a lot.

I would like to thank a few people to conclude this preface. First of all I would like to thank Mirjam Wajsberg and Joris Schapendonk for the supervision during this thesis. There were a few times that I was stuck and did not really know how to continue, and they helped me during these periods by putting forward new ideas that helped me progress. Furthermore, they gave me loads of feedback and helped me improve my English writing. I would also like to thank the people that I interviewed, as they were very keen on helping me gather information that helped me to write this thesis.

David Dortmans

Nijmegen, June 2019

Summary

The Lake Chad Basin is situated in the middle of Africa and consists out of seven countries: Algeria, Cameroon, Central African Republic, Chad, Niger, Nigeria and Sudan. Lake Chad itself is situated in a border region consisting out of four countries: Cameroon, Chad, Niger and Nigeria. Lake Chad has been shrinking since decades, possibly having a negative influence on the livelihood of people living in this region. This is because people rely on the possibilities the Lake offers in order to be able to perform those livelihood practices. Examples of this are fishing and agriculture. Livelihood can be measured by looking at different aspects, for example: financial, social, natural, physical and human resources.

Conflict is a phenomenon that is taking place in the Lake Chad region. Terrorist groups such as Boko Haram play a very powerful role within the regional dynamics within Lake Chad. Boko Haram performs attacks on the local population, causing fear and despair. This terrorist group causes violent conflict, not only under the people living in Lake Chad, but also in a clash between the Multinational Joint Task Force (MNJTF), which has a mandate to end the insurgency of Boko Haram. The question that is important for this research is if this conflict has originated as a result of the shrinking of Lake Chad, or if there are other reasons for this emergence of conflict.

Migration is a reoccurring phenomenon within the Lake Chad region. Historically, many people living in the Lake Chad region live a nomadic lifestyle, moving from place to place to perform livelihood practices such as fishing and agriculture. Especially for agriculture, it is important to be able to make use of fertile land, which causes people living in this area to maintain this nomadic lifestyle. This research tries to answer questions such as if the shrinking of Lake Chad has an influence on people living this nomadic lifestyle, or if the shrinking of Lake Chad leads to other types of migration within this region.

The main question this research tries to answer is: *'How has the shrinking of Lake Chad affected people's livelihoods and has the shrinkage led to conflict and migration?'* To be able to answer this multi-dimensional question, a few sub-questions have been made in order to answer the main question in a systematic way. These sub-questions are:

- What is the role of mobility and migration in this region of the world?
- What new types of migration are related to the shrinking of Lake Chad?
- How does the shrinking of the Lake affect conflict in this region?
- In what way do state and non-state actors have a possible influence on livelihood changes within Lake Chad?

In order to be able to answer these questions, interviews with experts of the Lake Chad region have been performed. Furthermore, a document-analysis was conducted. This implies that documents about migration, conflict and livelihood from different types of organizations and media about Lake Chad have been analyzed. The focus of this analysis was to see how these organizations frame conflict, migration, livelihood and development in their articles. The results of this analysis help to answer the questions posed in this research.

The livelihood of people living in the Lake Chad area is being dominated by opportunities that the Lake offers, which are mainly agricultural practices and fishing. Once the main sources of livelihood are removed or become harder to access, it can trigger migration and conflict. Because of the shrinking of Lake Chad, it can be stated that the livelihood practices that people perform in this region have become harder to maintain, thus resulting in forms of conflict and migration.

However, conflict and migration are mainly triggered by the rise of terrorist groups in the Lake Chad region. The most influential terrorist group in this region is Boko Haram. This terrorist group has caused fear amongst the population living in this region. This results from multiple violent attacks in villages, burning down houses, stealing cattle, food and money amongst other violent crimes. People are scared to perform livelihood practices as they are scared of the influence of Boko Haram. As a result of this, people decide to flee the area, resulting in a high number of refugees and internally displaced persons in the Lake Chad region.

The shrinking of Lake Chad only has a marginal role in this process, as the power of Boko Haram mainly arises from the radicalization of this terrorist group. Since 2013, the terrorist group became a rural-based insurgency in the Lake Chad region, starting in Nigeria but expanding to the other three countries involved in this region later on. This insurgency happened after Boko Haram became controlled by a new leader: Abubakar Shekau, who pursued a path of violence, bombings and suicide attacks.

In this research, it has become clear that the shrinking of Lake Chad does not play a big role in phenomena such as conflict and new types of migration, but it has however played a marginal role in the process of conflict and migration emergence. That is because people have become poorer and livelihood practices were harder to maintain since the shrinking of Lake Chad pursued. As a result, people became poorer and more desperate, resulting in an increase in Boko Haram members, because people joined the terrorist group as a result of a lack of other livelihood opportunities. There is some sort of conflict that originated from the shrinking of Lake Chad, namely agricultural conflict. This is a type of conflict that occurs in the Lake Chad region because people have to 'share' a smaller fertile area surrounding Lake Chad than before. Also, fishing with the same amount of people in a

smaller area causes problems as well. This form of conflict is however minor in comparison with the conflict that Boko Haram causes.

Different state and non-state actors play an important role within this region with regard to livelihood. First of all, Boko Haram is a very influential non-state actor that influences livelihood in a negative way in this region. Furthermore, there is the Lake Chad Basin Commission, which has a mandate of ensuring that the transboundary water resources of the Lake are well managed. The Lake Chad Basin Commission is an intergovernmental organization, meaning that different countries cooperate within this organization. The Lake Chad Basin Commission seems to fail to complete the challenges they have set, which mainly comes down to counteracting the shrinking of Lake Chad.

Concluding and coming back to the main question of this research: *'How has the shrinking of Lake Chad affected people's livelihoods and has the shrinkage led to conflict and migration?'*, it can be concluded that the influence of the shrinking of Lake Chad on livelihood, conflict and migration is not as large as originally expected. There are other factors that have a bigger influence on these phenomena. Mainly the presence of terrorist group Boko Haram can be attributed to the rise of new types of conflict and migration in the Lake Chad region.

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1.1.1. Shrinking of the Lake Chad Basin

This research looks at the current situation regarding conflict and migration in the context of the shrinking of Lake Chad. The Basin is situated in Central Africa, and spreads over seven countries Africa: Nigeria, Niger, Algeria, Sudan, Central Africa, Chad and Cameroon. The Lake is the center of socioeconomic and ecological activities within a transboundary zone surrounded by four countries: Nigeria, Chad, Cameroon and Niger (Watang Zieba, Yengah & Tom, 2017). The Lake and its basin have been serving as the source of valuable economic resources in the region (Watang Zieba et al, 2017). Lake Chad is very important for the people living in this area. However, over the last couple of decades, the Lake is shrinking. This development has a massive influence on the population. The Intergovernmental Panel on Climate Change (IPCC) predicts that the Lake Chad Basin will experience an estimated 10% reduction in annual rainfall by 2050 (Watang Zieba et al, 2017). This is such a significant decrease in rainfall that this could have substantial effects on food and water security in the region as it will be difficult to manage this reduction (Watang Zieba et al, 2017).

According to Singh, Diop & M'mayi (2006), the shrinking of Lake Chad can be explained through three main reasons. First of all, the water and land surrounding the Lake is being overused by the people living in the Lake Chad Basin, and the reason for this is mainly that agricultural practices are being executed. Furthermore, population growth in the area plays an important role. The first of these factors can be seen as a result of the second factor. Between 1960 and 1990, so within 30 years, the population in the Lake's area has grown from 13 million to 26 million people. This in combination with the fact that agriculture in the surrounding areas of the Lake provide the livelihood in 70% of the Lake Basin, demand for water for irrigation is estimated to have quadrupled between 1983 and 1994 (Singh et al., 2006). This is a such a big increase in both the rise of population as well as the rise in agriculture, where water is needed, that the Lake is not capable of delivering enough water in the long run. The third important reason for the shrinking of the Lake is climate change. The shrinking of the Lake results in a changing accessibility and availability of resources. An example of climate change and the influence of this on the Lake is the rainfall trend in Nigeria between 1901 and 2005. Within these years, rainfall amount dropped by 81mm per year. This decline has mainly taken place in the last three decades, and is still continuing to date (Ovuyovwiroye, 2010). As a result of this rainfall decrease, the Lake is shrinking, leading to severely limited access to sustainable livelihoods for people living in the region. People living in the area become more and more dependent on institutions like the government and NGO's because of this. Terrorist groups such as Boko Haram take advantage of this by escalating their influence, for example by attacking communities and island within the Lake Chad region, consequently utilizing fear as a recruitment technique (Hershberger, 2018). As a result of this development, people are fleeing the area because they are scared for the influence of the terrorist organization, as well as the increasing problems occurring because of climate change in the area.

Okpara (2016) mentions regular conflicts in the Lake Chad region have been reported resulting from environmental degradation and clashes between different groups within the Lake Chad Basin. The geo-political location of the Lake can be characterized by instability. It is hard for the people living within the Lake Chad Basin to cope with the effects of climate variability in the area (Okpara, 2016). This means that it is hard for people living in the Lake Chad Basin to deal with the changes and problems that the shrinking Lake causes. Because of the changing size of the Lake, the socio-politic and socio-economic environment is changing for the people living in the Lake Chad Basin. This is driving them into poverty.

1.1.2. Environment and migration

Migration studies very often mention the natural environment as a factor influencing human mobility, but this determinant faded from migration theories over the course of the twentieth century (Piguet, Kaenzig & Guélat, 2018). An increased focus was placed upon economic drivers regarding migration. This has changed during the last couple of decades, as attention for climate change and its consequences intensified. As a result of this, the 'climate migrant' was researched more often and the link between environmental change and migration was explored using a common methodological framework (Piguet et al, 2018). This common methodological framework focused on the role of environmental factors in migratory patterns. A climate migrant can be described as a person who flees an area as a result of worsening conditions because of climate change. In this specific case, that means that someone would flee the Lake Chad Basin because climate change has a negative influence on the livelihood of this person for example.

Betts (2013) states that there is a lack of conceptual language to identify people who migrate and who should have an entitlement not to be returned to their country of origin. Drivers of cross-border displacement and what they mean for protection are mainly focused on particular causes of displacement such as environmental change or climate change. An approach based on identifying particular causes risks repeating the same mistake of the refugee definition, namely focusing on the causes of displacement instead of the underlying 'threshold of rights' (Betts, 2013). This threshold of rights contains for example the right to live in a country safely and without having to fear violence and poverty.

Migration is something that has always taken place in the Lake Chad Basin. The main form of migration that took place is called 'seasonal migration'. More than half of the farmers that are active in the Lake Chad Basin follow seasonal patterns in their practice of agriculture (Okpara, 2016). Farmers that used migration within these seasonal patterns did so for economic reason (Okpara, 2016). Thus, not all migration is caused immediately by the shrinking of the Lake. It has been argued that the African Sahel has managed to sustain a higher population size than they could as sedentary populations. This means that there were more people living in the Lake Chad Basin because of the opportunities the Lake had to offer. Migratory pastoralists have managed to sustain their cattle numbers and migratory practices in balance with the vegetation (Watang Zieba, 2017). The shrinking of the Lake even offers opportunities for people living in the Lake Chad Basin. As the Lake shrinks, an area of land rich in silt is increasing around the Lake, which causes people to migrate towards these areas instead of away from them (Watang Zieba, 2017). People are finding solutions for securing livelihood practices around the Lake, and consequently, people are migrating within the area of the Lake Chad Basin, and are not fleeing the area.

Richard (2016) states that people migrating within the Lake Chad Basin can be explained through the fact that the majority of people do not want to leave their home or their community. People are attached to their home. This dominates decision-making, encouraging people to stay. Also, it encourages people to migrate locally when forced to by storms, floods etc. (Richard, 2016).

1.2. Research objectives

The situation within the Lake Chad Basin regarding the decreasing size of the Lake has a lot of effects on the population, both positive and negative. The people living in the area are very dependent on the possibilities the Lake offers, mainly in agricultural practices. As a result, the shrinking of the Lake should be considered as a very important topic that requires attention. There are environmental transformations and therefore transformations in people's livelihoods. The changing situation regarding the Lake Chad Basin as an environmental transformation has an effect on the livelihood of people. In order to have a balanced understanding of how environmental change affects the life of the population, this research aims to understand the coping strategies of people with regard to the change of livelihood and the role of formal and informal institutions. In order to understand the situation regarding the Lake Chad Basin, it's necessary to understand which actors play an important role within the situation as a whole. Both state- as non-state actors will be taken into account in order to create a better understanding of the dynamics influencing the livelihood of people within the Lake Chad Basin. This way, the link between the shrinking of the basin and conflict, migration as well as displacement can be made. Therefore, the goal of this research will be to gather insights into the process of change and conflict in the Lake Chad Basin, in order to gather knowledge to contribute towards the discussion of how climate change may lead to conflict and migration as a result of a changing livelihood.

1.3. Research area

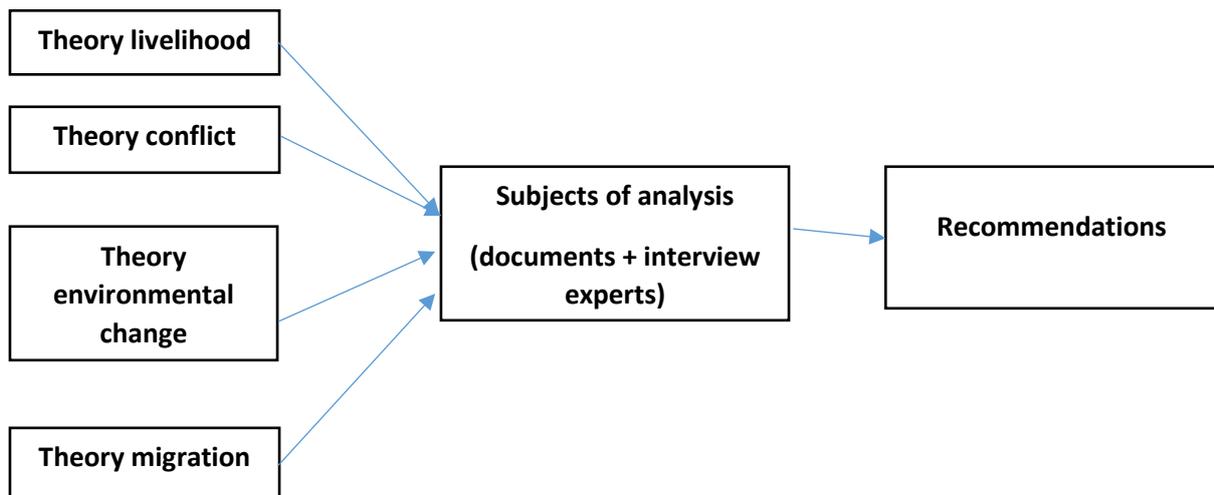
For this research, it is important to demarcate the research area in a clear way. There is a difference between the Lake Chad Basin and the Lake Chad, as the Basin is a much larger area than the Lake Chad by itself, and is composed out of seven countries (Algeria, Central African Republic, Cameroon, Chad, Niger, Nigeria and Sudan) whereas Lake Chad by itself exists out of only four countries (Cameroon, Chad, Niger and Nigeria). The Lake Chad Basin is so big that it makes up 8% of the whole of Africa, whilst the Lake Chad Conventional Basin, which is a name often used to indicate the Lake Chad only by itself, without the Basin, is a lot smaller.

For this research, it is practical to only look at the area which is being described as the Lake Chad Conventional Basin, thus consisting of the countries Cameroon, Chad, Niger and Nigeria, because the possible effects of the shrinking of the Lake should be the most visible in these areas, whereas the influence of the shrinking of the Lake might be less visible in the whole Lake Chad Basin. Therefore, the Basin won't be named during the rest of this research, the focus will be on the Lake Chad Conventional Basin.



Figure 1: Map of the Lake Chad Conventional Basin (ISS, Hoinathy, R., 2019)

1.4. Research model



For this research, theories about livelihood, conflict, migration and environmental change are going to be used in order to get a starting position within the specific field discussed before: the influence of the shrinking of the Lake Chad Basin. After these theories are gathered and specified, the research will be executed with the help of document-analysis and interviews with experts. Document-analysis will take place strategically, so that different sides within this topic will be reviewed. Therefore, I have chosen to analyze documents of experts, humanitarian organizations, national governments and local newspapers. The experts that will be interviewed have knowledge about the Lake Chad area because they have lived in the area for a long time, or because they have researched this area for a long time. This way, knowledge that is gathered will be analyzed and certain recommendations to improve the current situation regarding the Lake Chad Basin will be made.

1.5. Research questions

The main question this research will try to answer is: How has the shrinking of Lake Chad affected people's livelihoods and has the shrinkage led to conflict and migration? To achieve an improvement within the Lake Chad Basin for the people living there, it is important to understand the way the problem originated and developed, before answering the questions how this shrinking has an influence on the population. Therefore, it is important to understand the history of the basin and the way people lived and treated the Lake, before trying to formulate solutions. In order to answer this main question, a few sub-questions will be set up.

- What is the role of mobility and migration in this region of the world?
- What new types of migration are related to the shrinking of Lake Chad?
- How does the shrinking of the Lake affect conflict in this region?
- In what way do state and non-state actors have a possible influence on livelihood changes within Lake Chad?

2.1. Theoretical framework

2.1.1. Environmentally induced migration

As stated in the project framework, in order to have a balanced understanding of how environmental change affects the life of the population, we need to dive deeper into the coping strategies of people and its institutional context. The impacts of climate change are likely to affect population distribution and mobility (Tacoli, 2009). Amongst the major global environmental changes observed around the world in recent decades is the drying of lakes (World Lakes Network, 2004). Climate change plays a very important role in the shrinking of these lakes. This climate change and the consequences on people's livelihoods may be a cause for migration within the Lake Chad Basin. In 1990, the Intergovernmental Panel on Climate Change (IPCC) noted that the greatest single impact of climate change could be on human migration (Brown, 2008). Brown (2008) states that while the scientific argument for climate change is increasingly confident and clear, it is not quite clear how the consequences of climate change have an impact for human population distribution. There are many other environmental, social and economic factors that influence migration-trends as well, and therefore it is hard to state that climate change has a direct impact on migration in most cases, although it plays a massive role as a cause of migration in reality. Nowadays, temporary migration as a response to climate stress is a phenomenon that is already taking place in many areas, but the ability to migrate is dependent on different factors, such as the financial and social situation of people (Brown, 2008).

Environmental change contributes directly to migration by forcing people out of areas that are becoming increasingly uninhabitable (Kothari, 2013). However, despite this recent development, the relationship between environmental change and migration remains little understood (Black, Kniveton, Skeldon, Coppard, Murata & Schmidt-Verkerk, 2008), is poorly theorized and lacks detailed empirical evidence (Stal & Warner, 2009). So, whilst the impact of climate change on the movement of population is stirring up growing concern and interest, it has also led to much controversy over the methodology regarding migration and implications of future scenarios of migration (Kothari, 2013).

So however, climate change might have a huge impact on people to decide to migrate, it is difficult to substantiate this statement because other factors may play an additional role in migrating as well. The key problem with the concept of 'environmental refugees' is that the implicit assumption is made that a direct causal link exists between environmental change and migration (Tacoli, 2009). A case study that can support this is a research in northern Mali in the late 1990s, cited by Tacoli (2009). 80% of households within the northern part of Mali had at least one migrant member, but this high level of mobility was related to economic opportunities rather than the direct consequence of desertification and land degradation; causes of climate change. In the case of the Lake Chad Basin, it is very questionable that any of the migrants will have made their decision to migrate only because of climate change. Other factors like financial decline as a result of this climate change will play a big role as well, and this is something to take into account during this research.

2.1.2. Environmental change and its relation with conflict

The correlation between climate change and conflict is divided into two prominent perspectives in the research of Sachs (2008). The first perspective states that climate change is worsening resource scarcities and generates new conflict and security challenges (Sachs, 2008). Events such as severe drought, with localized violence and grim humanitarian consequences that follow, contribute to a narrative that climate change is worsening resource scarcities, leading to conflict and social breakdown (Sachs, 2008). The other perspective states that it is not climate change that causes conflict, but the effectiveness of governance and institutions to respond to climate shocks and variability which will determine the likelihood of conflict and/or collaboration around resources (Lind, Ibrahim & Harris, 2010). *“Climate change factors do not cause violent conflict, but rather merely affect the parameters that are sometimes important in generating violent conflict”* (Lind et al, 2010, p.1).

In addition to this, it is more and more understood that conflict and environmental change are related to each other. Societies already in conflict are particularly exposed to feel the impacts of climate change (Schaar, 2018). The reason for this is that they are already vulnerable because of the existing conflict. This is an interesting insight because it states that a relation between conflict and environmental change exists. However, this is not what this research will try to prove or test. This research will try to determine if environmental change has an impact on conflict-situations in the specific example of the Lake Chad region.

2.1.3. Livelihood and its relation with the shrinking of Lake Chad

A way of measuring the effects of the shrinking Lake Chad Basin on the life of the population, is the change in people's livelihood. Analysis of livelihood considers how families utilize and combine different aspects (financial, social, natural, physical and human) to pursue a strategy of livelihood, for example farming, in order to survive (Scoones, 2009). Livelihood is explained as comprising people, their capabilities and means of living, including food, income and assets (Chambers & Conway, 1991). In the context of a changing climate and increasing hazards, vulnerable groups are those who find it hardest to reconstruct livelihoods following disaster, and this in turn makes them more vulnerable to the effects of subsequent hazard events (Engel, 2004). In the case of Lake Chad Basin, this applies to people who are very dependent on the Lake for agricultural practices, but are not able to adapt well to the changes the shrinking of the basin brings.

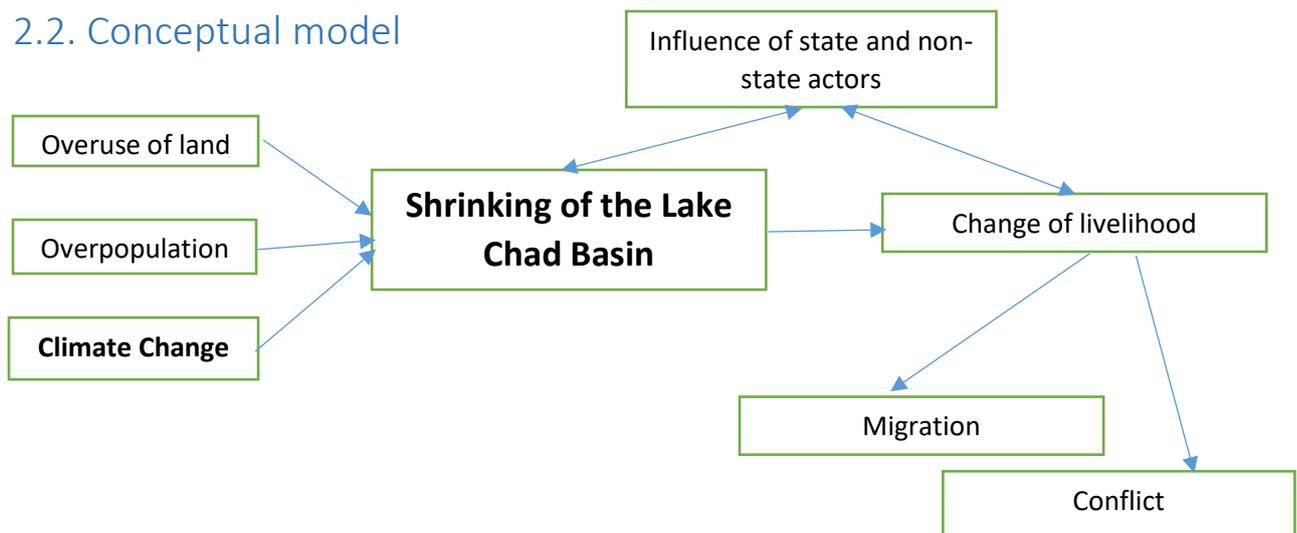
Livelihood 'best expresses the idea of individuals or groups striving to make a living, attempting to meet their various consumption and economic necessities, coping with uncertainties, responding to new opportunities, and choosing between different value positions' (Long, 1997, p.11). Livelihood is not a matter of material well-being, but rather it also includes non-material aspects of well-being, following the holistic understanding of livelihood (De Haan & Zoomers, 2005). Besides conventional assets like livestock, land or equipment, the holistic understanding of livelihood also looks at social capital and human capital (De Haan & Zoomers, 2005). Another insight in livelihood-studies that is interesting to look at is social exclusion. Failed access to resources and the resultant poverty or social exclusion can be the result of a mechanism by which certain people exclude other people from access to resources, with the objective of maximizing their own returns (De Haan & Zoomers, 2005). In case of the Lake Chad Basin, the shrinking of the Lake could lead to certain power-relations where some people exclude other people from access to the possibilities the Lake offers. The combination of overpopulation and the shrinking of the Lake might certainly lead to these kind of power-relations.

2.1.4. State and non-state institutions

In the present situation regarding the Lake Chad Basin, a distinction should be made between state and non-state actors. Paley (2008) states that in international affairs, nation states remain the primary actors, but there has been a fundamental change in the type of players involved in international affairs. Increasingly international actors in the form of for example the United Nations and the North Atlantic Treaty Organization are making themselves felt in the international arena. This originates from the fact that these organizations are becoming even more influential on a global scale. Furthermore, transnational actors (actors that are operating across national boundaries) in the form of the media, religious movements and terrorist groups are taking a more important place in international politics as well NGO's and transnational actors. Non-state actors like these stated before affect the strategic dimensions of the game in international interaction. If non-state actors are not taken into account whilst doing research or developing a theory, these theories and models have not identified accurate and credible correlational mechanisms that describe the real reasons why dynamics occur in the real world (Paley, 2008). The changing (and worsening) social and political conditions of people living in the Lake Chad Basin made the terrorist organizations, but mainly Boko Haram, more powerful and this process continued steadily over the last couple of years (Magrin & de Montclos, 2018). The same goes for some NGO's that are active in the Lake Chad Basin, like Médecins sans Frontières. These non-state actors become more powerful because the shrinking of the Lake Chad Basin has caused humanitarian problems.

The governments of the countries bordering the Lake Chad Basin might be seen as important state actors within the area. However, this is not entirely the case. The environmental monitoring network in the Lake Chad Basin was described as sparse, poorly funded, badly operated and inadequate (UN, 2018). Agricultural loss has not been noticed at all by local authorities or community organizations during the last couple of years (UN, 2018). Nigeria, Niger, Chad and Cameroon are all weak states with little control over the region's development (Magrin & de Montclos, 2018). Tyagi (2012) defines a weak as a state that is weak in its core functions to provide security to their citizens, providing services to its citizens and having legitimacy among its people. This term is rather controversial, and there are many differing opinions in academia about its use, but this research will regard weak states as the description Tyagi (2012) has given. These governments had to compromise with local powers, especially with traditional leaders and religious authorities, to govern a space with highly porous borders (Magrin & de Montclos, 2018). These findings show that the situation should be regarded as a combination and interaction of state and non-state actors active within the area, which is influenced by historic and contemporary developments within the Lake Chad Basin. It is clear to say that the state doesn't have complete prevalence in the region, and this is something very interesting to look further into.

2.2. Conceptual model



This research will try to highlight the influence of the shrinking on the Lake Chad Basin on the change of livelihood of people living around it, as posed in the main question of the research. Furthermore, this research will try to analyze if state and non-state actors have an influence on this change of livelihood. In addition, it will be investigated if this change of livelihood has an influence on migration. It will be interesting to find out which form of migration is used as a reason for people to move. This is interesting because as stated before in this research, migration is a phenomenon that has taken place in the Lake Chad Basin for a long time. It also is important to investigate if the change of livelihood caused by the shrinking of the Lake might be a reason for climate induced conflict.

3.1. Research-strategy

This research will focus on one specific case study, namely the Lake Chad Basin. Therefore, the research will be profound on this specific case. For this research, interviews with people who are experts on this specific area will be the main source of newly gathered information. These people are experts on migration and conflict within the Lake Chad region. Unfortunately, it is not possible to carry out this research in the Lake Chad-area, so for gathering new information, interviews with experts are necessary. These interviews are meant to give more insight on specific topics within the research such as to better understand of the migration-processes and if they are caused by historical habits or the changing size of the Lake, as well as other dynamics taking place in the Lake Chad Basin. As a result of this approach, the research will be qualitative. The information gathered through document-analysis will be non-empiric, where secondary sources will be used. The information gathered through interviews is empiric. As a result, this research will be executed as a case study of the Lake Chad Basin. Furthermore, this research will make use of document-analysis in order to understand the ongoing dynamics regarding the Lake Chad Basin, for example (existing) migration-streams and changes in livelihood. Document-analysis means that the underlying messages of documents will be looked upon, and conclusions about this will be drawn. For example, it is a possible finding if an organization focusing on migration will focus on migration in the document as well. Documents that have been reviewed are for example documents written by US-AID, Oxfam Novib and a Nigerian newspaper.

3.1.1. Societal and scientific relevance

This research is relevant in a societal and scientific way because first of all climate change and the effects of this are occurring more and more around the world. The shrinking of Lake Chad is a good

example of this climate change and its effects. According to the Intergovernmental Panel on Climate Change, climate change is set to have a seriously large impact on agriculture in the Sahel zone (Stache, 2019). Therefore, doing research on climate change and the influence of this climate change on livelihood, conflict and migration could be applied to more regions of the world than only the Lake Chad region. In 1990, the Intergovernmental Panel on Climate Change (IPCC) noted that the greatest single impact of climate change could be on human migration (Brown, 2008). It will be scientifically relevant to research if this statement still applies thirty years later.

Furthermore, this research contains societal relevance because a crisis is going on in the Lake Chad region. Many people are internally displaced and need to flee the area. Figures from US AID show that more than 1 million children in Nigeria aged five years and younger are experiencing acute malnutrition (US-AID, 2019). The population living in the Lake Chad region is suffering, many people are being negatively influenced by the crisis in this region. Moreover, Oxfam Novib (2016) states that there has been an upsurge in violence in some areas in the Lake Chad Basin, which is making the situation for the local population in the area even worse. Because of all these problems currently occurring in the Lake Chad region, it can be stated that this research has societal relevance.

3.2. Research-material

To execute this research, it is very important to understand the processes that are taking place in the Lake Chad Basin regarding livelihood, conflict and migration and processes that have taken place in the past regarding these subjects to be able to answer the main question: How has the shrinking of Lake Chad affected people's livelihoods and has the shrinkage led to conflict and migration? In order to get a better understanding of the way the shrinking of the Lake affects people's livelihoods, it is interesting to seek information that explains why people behave and 'survive' in a different way, when the livelihood might be worsening and conflict and migration might appear. Important sources for obtaining this goal of gathering information about these subjects are mainly interviewing experts and doing document-analysis. These documents will be analyzed by comparing them to other documents and gathering important information about the main subjects of this research. This process will be elaborated more in parts 3.3. and 3.4.

The information obtained by interviewing experts will be summarized and compared to each other. Interviews will be transcribed and then coded, and afterwards, through these codes, what is said during the interviews can be analyzed. The interviews will have different subjects, such as the changing of livelihood caused by the shrinking of the Lake Chad Basin, and this can be combined with interviews about how these (possible) changes in livelihood might lead to conflict and migration. In addition, interviews with non-governmental organizations (NGOs) that are active in the area of the Lake Chad Basin might be able to give unique insights in the processes that are taking place regarding the topics stated above. In this process, document-analysis will be executed in order to get a better understanding of the processes regarding these topics in the Lake Chad Basin, for example how changes in livelihood were handled in the past. Written reports will also play an important role within this research. These reports can help picture how the situation in the Lake Chad Basin has developed, and can therefore help answering the main questions regarding this research, such as the main question: How has the shrinking of Lake Chad affected people's livelihoods and has the shrinkage led to conflict and migration?.

3.3. Performed interviews

For this research, three interviews have been performed with different kind of experts of the Lake Chad area. Those interviews help in understanding the situation in the Lake Chad region better,

whilst also helping to gather new insights for this research. I would like to thank these people for their cooperation, as they really helped conducting this research.

First of all, an interview with Dr. Uche Okpara was performed. Dr. Okpara is an environment, development and security researcher who has work for the University of Leeds among others. Dr. Okpara has written different essays about the Lake Chad area. The interview with Dr. Okpara was conducted via Skype, and English was the language spoken. The interview was recorded and transcribed and lasted for approximately 45 minutes.

Secondly, I interviewed Dr. Lotje de Vries who is a social anthropologist working on local dynamics of (in)security, state-society relations in (post-)conflict settings and transnational security governance in peripheral areas. She focusses mainly on South Sudan and the Central African Republic. These countries are close to the Lake Chad region, and the dynamics in those countries are kind of corresponding with the dynamics in the Lake Chad region. The interview took place in Wageningen, was recorded and transcribed, and lasted for about an hour. The language spoken in this interview was Dutch.

The last interview was conducted with Dr. Alassane Dembele. He is a peacebuilding project officer of the International Office of Migration in Chad. Dr. Dembele works in N'Djamena in Chad, and has a lot of expertise regarding refugees and refugee-camps in Chad. Therefore, he could help me in understanding the migration dynamics taking place in the Lake Chad region, which helped answering the research question: What new types of migration are related to the shrinking of Lake Chad? He also helped getting me insights that helped answer the other research questions. The interview with Dr. Dembele was conducted via Skype, and lasted for about 45 minutes. This interview was also recorded and transcribed.

The interviews help to reach the goal of this research, which is to gather insights into the process of change and conflict in the Lake Chad Basin, in order to gather knowledge to contribute towards the discussion how climate change may lead to conflict and migration as a result of a changing livelihood.

4.1. Document-analysis

A document-analysis will be executed in this research in order to help to answer the research-questions. For this document-analysis, documents written by different organizations will be analyzed such as international organizations, governmental organizations, local newspapers and research-documents, in order to understand the way those organizations assess the current situation regarding the Lake Chad area. The aim of this document-analysis is to research if different types of organizations frame the current mechanics in the area in a different way. For the analysis,

Furthermore, there will be three main subject areas regarding those documents, namely how they look into migration, conflict as well as livelihood and development in the Lake Chad area. The main aim is to research if those different types of organizations named before frame the situation regarding migration, conflict as well as livelihood and development in different ways, and what kind of information does resemble in those documents. In the table underneath, the organizations of which documents will be researched are named.

Type of organization	Authoring organization
International organizations	MSF, Oxfam Novib, NRC
State (governments f.e.)	US AID, Swedish + Dutch Governments
Local (newsarticles)	Today.ng
Academic research	- Okpara et al. - Mahmood & Ani

4.1.1. US AID

	Migration	Conflict	Livelihood & Development
US AID, 2019	<p>Migration is defined by US AID as a phenomenon that resulted from violence in the Lake Chad Basin. An example of this is an attack by an armed opposition group at the beginning of 2019, resulting in 35,000 people to flee from Nigeria (where the attack took place) to Cameroon.</p> <p>It is notable that the worsening livelihood situation is not used as a reason that people are migrating according to US AID. The main reason of displacement and migration is violence. It is also stated that violence in the area is the main reason that hindered agricultural production, livelihoods and cross-border trade. The shrinking of the Lake Chad Basin is not taken into account.</p>	<p>The escalating conflict has significantly reduced humanitarian operational capacity in the Lake Chad Basin. More than 260 relief workers were withdrawn from the area due to insecurity. In this case the relief workers who were withdrawn were working for humanitarian agencies. This shows the conflict in the Lake Chad Basin, and in this case in the Nigerian part of the Basin, is still a big problem.</p> <p>This goes not only for local aid workers but also for the local population, as they are in need of the help of these aid workers who are forced to leave the area.</p> <p>As quoted from an US AID-document: 'Years of conflict perpetuated by Boko Haram (...) have triggered a humanitarian crisis in Nigeria and surrounding countries in the Lake Chad Basin (...) (p.5). Again, it is notable that the shrinking of the Lake Chad Basin is named as a reason for conflict. The terroristic group is mainly named as the instigator of conflict.</p>	<p>Development and Livelihood mechanics are being analyzed by US AID. Acute food insecurity is being described as the main problem. US AID makes use of a ranking system called IPC (Integrated Phase Classification). This ranking determines how bad the current situation is according to US AID. The acute food insecurity is now ranked as IPC 4, which is Emergency level.</p> <p>Malnutrition is the main form of acute food insecurity. Figures from US AID show that more than 1 million children in Nigeria aged five years and younger are experiencing acute malnutrition. The worsening livelihood mechanics are being described as the result of conflict in the area.</p>

4.1.2. Dutch & Swedish Governments

	Migration	Conflict	Livelihood & Development
Dutch Government, (van Oosterom, 2018) & Swedish Government (Schaar, 2018)	In the statements of the Dutch and the Swedish Governments, migration is not being named once. This is a big difference with US AID, where migration is being named very often.	<p>The Dutch Government states that indirectly conflict is the result of a lack of socio-economic opportunities. The population of the Lake Chad Basin is vulnerable to recruitment by violent extremists because of a lack of socio-economic opportunities. So again, the root causes (the original instigators of the shrinking of the Lake Chad Basin) are being highlighted.</p> <p>The Swedish Government states that climate change has negative impacts on the stability and security of the Lake Chad Basin region. Climate change contributes to polarization and conflict, for example through the disruption of livelihoods. The shrinking of the Lake is not explicitly named in the document.</p> <p>It is also stated that all relevant stakeholders, also at the local level, should be included in a dialogue in order to try and prevent further conflict to happen.</p>	<p>In contrast to US AID, both the Swedish as the Dutch Government focus on root causes of the conflict emerging in the Lake Chad Basin. The three root causes that are being named by the Dutch Government are:</p> <ul style="list-style-type: none"> - Water and climate change - Socio-economic challenges - Lack of inclusion of women. <p>For example, water crisis and climate change have worsened possibilities for livelihood practices in the Lake Chad Basin. The lack of pre-emptive actions to prevent water crisis to happen also are being taken into account regarding the changing livelihood mechanics in the region.</p> <p>Both the Dutch as the Swedish government focus on the role of women within the Lake Chad Basin Crisis. It is stated that women's full and equal representation and participation is critical in stabilization efforts.</p>

4.1.3. MSF

	Migration	Conflict	Livelihood & Development
Médecins Sans Frontières (MSF), 2019	<p>MSF analyses that migration is a result of violence in the Lake Chad Basin region. According to MSF, many of the displaced persons are finding refuge in areas that are also already suffering from poverty and food insecurity. These are areas also surrounding the Lake Chad Basin, so for example people from Nigeria are fleeing to Niger.</p> <p>Furthermore, the areas that people are migrating to (often forced), have harsh living conditions. Needs for clean water, food, clean shelter for example are insufficiently met.</p>	<p>Conflict is being described by MSF as a clash between military forces and non-state armed groups in Nigeria, Cameroon, Chad Republic and Niger. MSF doesn't go into detail as to who these groups are and what thrives them to act this way. A significant increase in the number of incidents and attacks, as well as military operations against armed groups, have taken place during the last couple of years. These incidents and attacks are often between terrorist groups like Boko Haram and military forces. Also, Boko Haram is attacking the local population. Boko Haram is mainly operating in Nigeria, but the last few years the influence of Boko Haram has increased towards the other countries bordering the Lake Chad Basin as well.</p> <p>Again, the reason for the uprising violence is not being described. Climate change and the shrinking of the Lake are consequently not being named as possible conflict-inducers.</p>	<p>Development and livelihood insecurities are described by MSF mainly through the conclusion that people are in need of food, safe drinking water and healthcare. In this rapport, nothing is being said about how the shrinking of the Lake in combination with climate change might have an influence on the livelihood of the people living in the Lake Chad Basin.</p> <p>According to MSF, the living conditions for internally displaced persons in the Lake Chad area have significantly improved which has led to the withdrawing of the MSF-team from the Lake Chad Basin.</p>

4.1.4. Oxfam Novib

	Migration	Conflict	Livelihood & Development
Oxfam Novib, 2016	This report of Oxfam Novib show that migration is a result of conflict in the Lake Chad Basin-area. Oxfam Novib is describing the current situation in the Lake Chad Basin as worsening, stating that the number of displaced people has tripled in the worst-affected areas over the last two years.	<p>Conflict in the Lake Chad Basin area is being described as a clash between Boko Haram and the resulting counter-insurgency operations.</p> <p>It is notable to see that Oxfam Novib states that there has been an upsurge in violence in some areas in the Lake Chad Basin, whereas MSF stated that the living conditions for internally displaced persons has significantly improved. On this point, both NGO's don't agree with each other.</p>	<p>Oxfam Novib states that violence and displacement are taking a toll on people's livelihoods. The insecurity regarding livelihood practices existing in the area is preventing people from fishing and farming.</p> <p>Again, in the reports almost nothing is said about the theory that root causes of the problem such as climate change and the resulting shrinking of the Lake are the main factors that influence livelihood. Poor water management and ways to improve this are not named as well. The main focus of the reports is laid on the food crisis and the malnutrition of people.</p>

4.1.5. Norwegian Refugee Council

	Migration	Conflict	Livelihood & Development
Norwegian Refugee Council (Skretteberg, 2018)	<p>It is said in the article that the conflict between Boko Haram and Nigerian security forces have forced millions to flee their homes and as a result caused massive civilian suffering.</p> <p>The NRC states that the Lake Chad region, together with other countries in the Sahel, topped their list of neglected displacement crises.</p>	<p>Conflict in the Lake Chad area is described by NRC as a conflict between Boko Haram and Nigeria security forces. The shrinking of the Lake is caused by a lack of rain, but also the development of modern irrigation systems.</p>	<p>The article states that millions of people are in need of both food and protection. Violence and fighting have destroyed food crops, infrastructure and economies, with has resulted in food insecurity for five million people.</p> <p>Furthermore, it is stated that a new protracted and deadlocked conflict in Africa is being risked by the current situation. The emergence of several terrorist groups and organized crime are two of the possible instigators for this deadlocked conflict.</p>

4.1.6. Researchers: Okpara et al.

	Migration	Conflict	Livelihood & Development
<p>Lake drying and livelihood dynamics in Lake Chad: Unravelling the mechanics, contexts and responses (Okpara, Stringer & Dougill, 2016).</p>	<p>The article doesn't really focus on migration, but an interesting quote from the article is that: 'Two kinds of people exist around the Small Lake Chad, those who take advantage of the dried Lake by seeking permission to cultivate the 'new' land areas and those who follow the Lake to new territories as it contracts.'</p> <p>This quote shows that there are people who are actually profiting from the shrinking of the Lake Chad Basin as well as people who are suffering from it, which is an interesting insight.</p>	<p>A new approach to development of conflict in the Lake Chad Basin is being brought forward in this article, namely that the increase of population has an influence on conflict as well.</p> <p>As can be seen in figure 2, which can be found in the article, the number of conflict-situations within the Lake Chad Basin has risen a lot during the last couple of years. In the article it is described that most of these conflicts are a result of environmental degradation, clashes amongst different ethnic groups and between locals and security officials.</p> <p>It is interesting to see that in the article conflict is not being described only as a clash between terrorist groups and military forces, but names other causes as well.</p>	<p>The main concern regarding livelihood according to the article is that people are not receiving enough income to be able to cover important household expenditures, such as water, food, housing and clothing. The shrinking of the Lake is the main reason for this, according to informants being interviewed for this article.</p> <p>People try to cope with this negative change of livelihood by incorporating different strategies, such as intensification/extensification in order to be able to control the water of the shrinking Lake in a better way.</p> <p>In order to handle these changes in livelihood practices, the article states that developmental assistance for the people living in the Lake Chad Basin is necessary. An example of this is assistance that targets the low infrastructure profile of the region.</p>

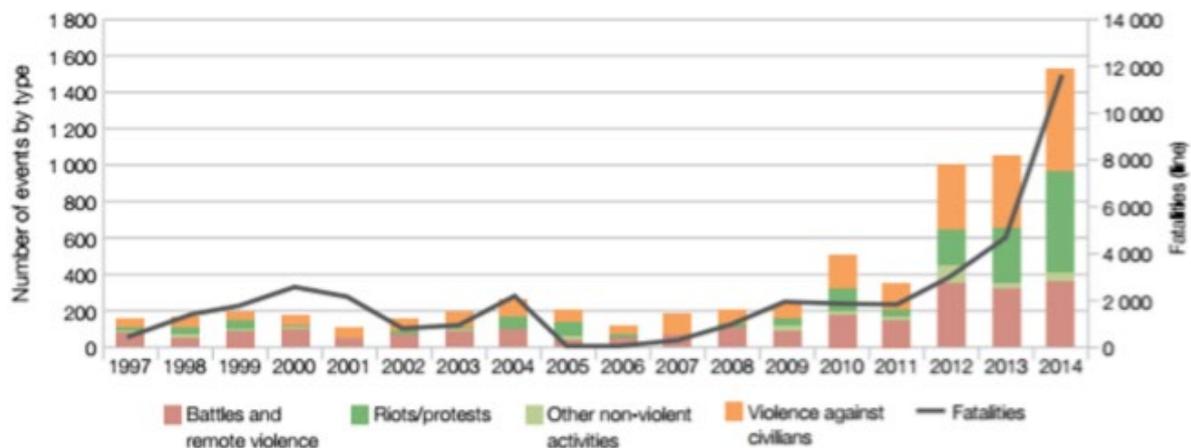


Figure 2: Trends of violence and fatalities in the Lake Chad Region (1997-2014). (ACLED, 2014).

4.1.7. Researchers: Mahmood & Ani

	Migration	Conflict	Livelihood & Development
Mahmood & Ani, (2018).	An interesting insight from this article is that research has discovered that migration patterns show that barely any people are fleeing towards Libya and Europe. This means that most people who are fleeing areas within the Lake Chad Basin are moving towards other locations close-by.	<p>According to this article, some civilians living in the Lake Chad Basin state that they were caught between supporting the government and allegiance to the militants such as Boko Haram. Also, there is cooperation going on between Boko Haram and ISIS. Within these terrorist groups, there are disagreements which breaks these groups up into even more smaller groups.</p> <p>Also, militant groups offer money to young people in return for joining them. Militant groups make use of the conflict between the government and these militant groups in order to gather more people, by reversing fines and arbitrary arrests by government commanders.</p>	It is also said in this article that militant groups such as Boko Haram seize food items under the threat of force. Furthermore, it is said that Boko Haram does not kill people in villages anymore, but when you meet them in the bush, they will kill you because they think you are informants disguised to get information for the government. This is not a direct quote from a villager, but is described in the document. As a result of this, people are unable to farm because for that they need to get into the bush. This way livelihood practices are being disturbed by terrorist groups.

4.1.8. Nigerian Newspaper: Today.ng

	Migration	Conflict	Livelihood & Development
Umoren, B., Adeoye, O., (Today.ng), 2019	It is striking to see that this newspaper doesn't write a lot about displacement and migration in the Lake Chad Basin area. There are some news-articles that write about financial help in order to be able to tackle new cases of displacement in the area. Displacement and migration do not however get a lot of attention in the newspaper.	<p>The newspaper reports quite often that Boko Haram fighters have been killed by troops of the Multinational Joint Task Force (MJFT). Attacks by Boko Haram on the local population living in the surrounding areas of the Lake Chad Basin are not being mentioned.</p> <p>The newspaper even mentioned a quote from a Brigadier General in the area: 'Like we continue to say, it is the last kick of the dying horse for the few of them that are marauding but the good thing is we are following the, smoking them in their enclaves telling them there's no hiding place' (Brigadier General Biu, today.ng, 2019). This seems to be a sort of propaganda, because other newspapers write that Boko Haram has performed multiple deadly attacks during the last couple of months.</p> <p>The newspaper itself does however write quite a lot about Boko Haram attacks as well, with people dying from these attacks.</p>	<p>The newspaper has reported a few times during the last couple of months that the United Nations has given attention to the shrinking of Lake Chad, raising 50 billion American Dollars in order to recharge the Lake. The plan is to create an inter-basin water transfer from Central Africa towards Lake Chad.</p> <p>Furthermore, articles state that the President of Nigeria wants to diversify the economy together with making it more inclusive. Articles state that the focus will be laid on the development of the ICT-sector in the region for example.</p>

Information in this framework is gathered from two specific news-articles on Today.ng:

- Umoren, B., (31-03-2019). Troops kill five Boko Haram terrorists in Borno. Retrieved on 13-05-2019, from: <https://www.today.ng/news/nigeria/troops-kill-boko-haram-terrorists-borno-208621>
- Adeoye, O., (20-04-2019). President Buhari, UN scribe to raise \$50 billion to recharge Lake Chad. Retrieved on 13-05-2019, from: <https://www.today.ng/news/nigeria/president-buhari-scribe-raise-50-billion-recharge-lake-chad-2>

4.2. Findings from document-analysis

In the upcoming part of the thesis, the documents that will be analyzed and compared to each other. This analysis will be conducted using three different points of thematic areas: migration, conflict and livelihood dynamics. The analyzed documents were produced by different organizations, such as governmental entities from 'the Global North'- such as US Aid and the Swedish and Dutch governments, but also from local newspapers active in Nigeria and humanitarian aid organizations active within the Lake Chad Basin. It will be interesting to see how these different organizations look towards different aspects that are current topics in the Lake Chad area: Migration, conflict and livelihood mechanics.

4.2.1. Findings document-analysis on migration

Almost all documents that have been analyzed describe migration in the Lake Chad Basin as a phenomenon that resulted from the violence that is occurring in the area. This violence is mainly powered by the presence of Boko Haram in the Lake Chad region. The analyzed documents during that are written by academic experts on the Lake Chad area (Okpara, 2016, Mahmood & Ani, 2018) on the Lake Chad Basin do not focus on migration, but more on the livelihood mechanics in the area. However, some types of migration can be seen as livelihood practice in the region since decades, as people need to migrate in order to be able to use fertile land for example. The reason that the academic experts do not really focus on migration might be because it is a phenomenon that has taken place for a long time in the Lake Chad Basin, even before conflict and changing livelihood mechanics occurred. These experts do however focus more on the effects of the shrinking of Lake Chad, such that it might not only be negative for the population, but also offers chances to cultivate new land areas which occur due to the shrinking of the Lake (Okpara, 2016). People make use of these new land areas which are often fertile but in order to do so they need to move to these areas. This is also a form of migration. This form of migration is however not mentioned a lot in those articles.

The reason for migration to be linked mostly to conflict in this area instead of environmental factors might possibly be because conflict is easier to measure and see whilst environmental factors are processes that emerge over longer time, and are often less visible. Furthermore, conflict could be the result of environmental change in the area. The shrinking of the Lake might have led to fewer possibilities for people in the Lake Chad area which caused a worsening livelihood situation, resulting in rebellion and conflict (Swedish Government, 2018). Conflict is easier to spot as a trigger for migration than environmental change, and this way institutions and organizations could frame the problem as the result of conflict instead of environmental change. This is because conflict situations often contain violence and destruction and this is easier visible than the results of climate change as migration triggers, which have more effects on the long run.

In contrast to those experts that have been mentioned before, humanitarian aid organizations focus a lot more on migration in their articles (see MSF 2019 & Oxfam Novib 2016). This is understandable in a way, because the focus of these humanitarian aid organizations such as Oxfam Novib and MSF is on helping people that are being displaced in the area. These organizations focus on the big numbers of displaced people living in the area many times in their articles. Quoting MSF: *"Across Nigeria, Cameroon, Chad and Niger, violence has uprooted more than 2.3 million people from their homes. Some 1.7 million people are internally displaced within Nigeria, while hundreds of thousands of internally displaced people (IDPs) and refugees can be found in Cameroon, Niger and Chad"* (MSF, 2019). This focus may be the case because these organizations are partly dependent on donations in order to be able to perform their work, and mentioning the big number of people that are in need of

help might help find these donations. These humanitarian aid organizations describe the large amount of displaced people as a result of conflict in the area. Quoting Oxfam Novib (2019): “The conflict has caused widespread destruction of vital infrastructure, such as hospitals, schools, roads, markets and farmland. Across the region, people are on the move trying to escape threats to their lives, liberty and other human rights in search of safety and protection” (Oxfam Novib, 2019, p.3) The shrinking of the Lake Chad is not being mentioned directly as a cause of migration by these organizations. Quoting Dr. de Vries (2019), a social anthropologist working on local dynamics of (in)security, state-society relations in (post)conflict settings and transnational security governance in peripheral areas states: “There are organizations that are dependent on government agencies. Other organizations have interest in emphasizing the seriousness of the situation in order to be able to keep on receiving money from donations. It is cruel how it works, but that is how it is” (Dr. de Vries, 06-05-2019). This is a weighty statement, but it implicates that humanitarian aid organizations are dependent on money to be able to maintain their work in these areas. All in all, it is still the population that profits from the presence of humanitarian aid organizations, because they have easier access to food and water because of this for example.

The statements in the US-AID document resemble a lot of statements made by the humanitarian aid organizations regarding displacement in the Lake Chad area. Both US-AID (2019) and Oxfam Novib (2016) state that displacement is a serious issue and name the high number of people who suffer from this displacement. US-AID is more of a governmental organization than purely a humanitarian aid organization, because the organization is supported by the U.S. Department of State and the U.S. Agency for International Development (US AID, 2019). In their report, US-AID (2019) is however a lot more specific in bringing forward concrete figures of displaced people, such as the example of the displacement of 35,000 people which fled from Nigeria to Cameroon after an attack by armed opposition. In line with the humanitarian aid organizations, US-AID does not mention the possible worsening livelihood situation as a result of the shrinking Lake as a reason for people to migrate and get displaced.

There is a significant difference to spot in the articles of US-AID, Oxfam Novib and MSF in comparison with those of the Dutch- and Swedish governments. In these latter documents, migration is not being mentioned once. These documents focus more on conflict and the negative change on livelihood and development these conflicts have on the population. It is however striking that migration and displacement is not being named once at all, because of the big amount of refugee camps and humanitarian aid within the Lake Chad area. To give an example: UNHCR (2019) shows statistics that in total, more than 2.5 million people are being displaced in Nigeria, Cameroon, Chad and Niger. These statistics only apply to IDP’s in the Lake Chad Basin area, so all the IPD’s mentioned in this figure are being displaced as a result of problems in the Lake Chad area.

IDP population by country [.CSV](#) [JSON](#)

Country of origin	Source	Data date		Population
Nigeria	IOM, NEMA	31 May 2019	<div style="width: 78.3%;"></div> 78.3%	1,948,349
Cameroon	IOM	8 Apr 2019	<div style="width: 10.6%;"></div> 10.6%	262,831
Chad	IOM	30 Apr 2019	<div style="width: 7.0%;"></div> 7.0%	174,340
Niger	Government	31 Mar 2019	<div style="width: 4.2%;"></div> 4.2%	104,288

Figure 3: Internally Displaced Persons by country. (UNHCR, 2019)

The local newspaper (today.ng) only mentions statements from organizations like UNHCR that send money towards the Lake Chad area in order to help displaced people, but does not mention for example where streams of refugees and displaced people are going to. It is important to mention

that this Nigerian newspaper (today.ng) is not located in the Lake Chad Basin area itself. This is important to note this because the newspaper not being situated in the Lake Chad Basin area itself might mean that the sources of this newspaper are not as reliable as when this would have been the case.

According to all of the documents mentioned above, it could be stated that the shrinking of the Lake Chad has not had a direct influence on migration in the area, as those documents state that conflict is the main instigator of this migration. However, it could be the case that indirectly environmental change has led to these conflicts, and this way environmental change is indirectly leading to migration and displacement in the Lake Chad area. Also, a combination between those two factors is a possibility. During our interview, De Vries states that people who flee the area mostly flee to surrounding areas where family is living. Thus, they do not necessarily escape the whole conflict, as there might be conflict in the areas these people are fleeing to. However, people choose to still flee to these areas as they know the area, speak the language and have personal connections. Furthermore, people often do not have a lot of money and as a consequence are not able to flee to places further away. There are lots of refugee camps funded by humanitarian aid organizations close-by to the Lake Chad area, and moving further away might mean that these kind of refugee camps where food, water and shelter is distributed are not available anymore. (De Vries, personal communication, 06-05-2019).

4.2.2. Findings document-analysis on conflict

There are different types of conflicts going on in the Lake Chad region, mainly differing from violent conflict between terrorist groups and the Multinational Joint Task Force (MNJTF) and conflict about agriculture following the discussion of who owns what property. The conflict described in the documents that have been analyzed is very much focused on the violent conflict that terrorist groups have caused in the Lake Chad region. It is interesting to see that the conflict as a result of land-ownership are not being described in those documents. This could possibly be because for example humanitarian aid organizations focus more on conflict emerged by terrorist groups as it might catch their attention more.

Most of the documents that have been analyzed describe conflict in the area as a clash between terrorist groups and military forces. These military forces are being brought together by the governments of the surrounding countries of Lake Chad. Figures in these documents show that the number of conflict-situation in the area has risen a lot during the last couple of years, as can be seen in Figure 1 for example. This can be explained due to the fact that the terrorist group Boko Haram has become more radical since 2011 and this has caused the organization to become more aggressive in the Lake Chad area (Mahmood & Ani, 2018). Next to this radicalization, Dr. Dembele states that Boko Haram has also increased in size, more people have joined the organization. *“The educational system is not developed, so it is not like people living in the area have the required level to pursue their studies all the way... The majority of the youth has nothing to do. You grow up there, it is not like every man and woman wants to do fishing, maybe they have other aspirations. What you have is, Boko Haram infiltrates the community, they say: ‘You can go to Nigeria, you can have a gun, you can have resources’, and so on. People sometimes join them without thinking so much about the effects of their actions, they just want to do something”*. (Dembele, personal communication, 10-05-2019).

Furthermore, it is interesting to see that only a few of these organizations state that climate change has been a trigger for conflict to emerge in the area. From the documents that have been analyzed in this research, only the Swedish (2018) and Dutch (2018) governments state this. The Swedish government (2018) states that climate change contributes to polarization and conflict in the area.

Going deeper into this, the Swedish (2018) and Dutch (2018) governments reports are focusing on the root causes of the problems regarding the Lake Chad region whilst trying to figure out why conflict is emerging in the Lake Chad area. The Dutch Government (2018) states that conflict is the result of a lack of socio-economic opportunities, and this lack of opportunities is being caused indirectly by the root causes of the problem which are climate change and a lack of water in the region.

Most of the other organizations do not really give reasons as to why conflict has emerged in the area, but do state that the conflicts are a big problem. Most of the documents state that Boko Haram is the main threat for the local population by attacking villages and stealing and threatening the local population. Boko Haram was mainly active in Nigeria in the first place, but has increased activity towards bordering countries (Chad, Niger and Cameroon) as well during the last couple of years.

Humanitarian organizations such as Oxfam Novib (2016) and MSF (2019) state that Boko Haram is a big threat for the local population. However, these organizations do not mention or provide why Boko Haram has become such an influential terrorist group within the Lake Chad area. The main factor for this rise could again be the climate change and shrinking of the Lake as a result of this, because poverty and a lack of opportunities might lead to despair, and Boko Haram offers food and water which might be an interesting outcome for people in that situation. People connected to Boko Haram might have done this as a desperate 'cry for help' to the outside world, which can be seen as the Western world as they are often the ones sending humanitarian aid towards these areas, because this way the region gets more attention (Okpara, personal communication, 17-04-2019). Essentially, it can be concluded from this quote that some people living in the Lake Chad region have become so desperate because of the ongoing troubles in the region, that they have joined a terrorist organization because they see this as the only way out. This could possibly also be seen as a survival strategy by Boko Haram, by providing essentials such as water and food they might get support from people living in the Lake Chad area.

The following experts that have written about conflict in the Lake Chad area dive deeper into the reason why the number of conflicts in the area have increased so significantly. Okpara (2016) states that the large population increase in the Lake Chad area also had an influence on the emergence of conflict. The link between the increase in population and conflict is however an indirect link. The growth of population does not directly mean that conflict emerges in the area. However, the growth of population results in more people needing to use the same or even less resources (because of the shrinking of the Lake) to be able to sustain themselves. This causes pressure on livelihood-dynamics and in that way might lead to conflict. In the article from Okpara (2016) it is described that most conflicts are a result of environmental degradation and clashes between different ethnic groups. This can be seen as a possible result of the population growth in the area, as population growth can put pressure on the environment (Okpara, 2016).

Other researchers, Mahmood & Ani (2018), state that people are in a predicament between choosing to join Boko Haram or supporting the governments of the concerned countries in the conflict. Militant groups like Boko Haram offer money, food and water to young people in return for joining them. This is interesting for poor people because these are things they are lacking in their daily life. This is in line with what I was told during a Skype interview with Dr. Dembele, namely that people living in the Lake Chad area who lost their jobs as a result of for example climate change have nothing to do, are poor, and thus are in search of something to do and might for this reason join Boko Haram, because they offer those people money and food (Dembele, personal communication, 10-05-2019)

The Nigerian newspaper today.ng (Adeoye, 2019, Umoren, 2019) reports quite often that Boko Haram fighters are being attacked by troops of the Multinational Joint Task Force, which is an organization which has the objective to contribute to restoring a safe and secure environment in the areas of the Chad Basin affected by Boko Haram through increased regional cooperation (African-EU Partnership, 2018). The news outlet does however also write quite a lot about attacks being performed by Boko Haram as well. However, this kind of news does not make the headlines often.

Taking into account the question if the shrinking of the Lake Chad area has an influence on conflict in this area, the document-analysis gives mixed answers to these questions. Most of the documents do not talk about the shrinking of the Lake and climate change at all, but it seems to be the case that the shrinking of the Lake as a result of climate change and poor water management might be an underlying factor in the conflict-emergence. All analyzed documents seem to agree that the conflict is mainly between terrorist groups and government-supported military groups, with the people living in the Lake Chad area being the victims. As stated in the theoretical framework, the geo-political location of the Lake can be characterized by instability (Okpara, 2016). It should be taken into account that the Lake area is a cross-border region. As a result of this, people who are trying to flee the area often cross a border in order to do so.

4.2.3. Findings document-analysis on livelihood & development

All documents agree with the statement that the livelihood of people living in the Lake Chad area has worsened over the last couple of years. There are a few main reasons discussed in these documents regarding this worsening livelihood. These reasons differentiate between the shrinking of the Lake, according to the Dutch (2018) and Swedish governments (2018), the insurgencies of Boko Haram (MSF, 2019), the insecurity regarding livelihood (Oxfam Novib, 2016), socio-economic challenges and the lack of inclusion of woman, Dutch (2018) and Swedish governments (2018). It is interesting to see that different organizations have different perceptions and there is no real consensus whilst figuring out what exactly are the main drivers of this negative change of livelihood. The reason for this lack of consensus could be that those organizations focus on different aspects of livelihood & development. Humanitarian aid organizations will mainly focus on major life needs such as water and food, whilst experts (Okpara, 2015) & (Mahmood & Ani, 2018) in the area dive deeper into the reasons for these problems.

US-AID (2019) describes the current situation in the Lake Chad area as a situation of enormous food-insecurity and trouble. On a scale from 1 to 5, the acute food security is being classified as 4, which corresponds to a level of emergency. Furthermore, it is interesting to see that US-AID does not seem to go deeper into the reasons for the acute food security to be so severe. However, it seems to be the case that US-AID attributes blame to Boko Haram for this situation, as the conflict in the area has a negative influence on food security according to US-AID, which has resulted in people being scared and unable to carry out livelihood practices such as agriculture, which has a negative impact on the livelihood of people in the Lake Chad area. The shrinking of Lake Chad is not being named in the document, as stated before.

The Dutch (2019) and Swedish (2019) Governments documents focus more on the root causes of the crisis that has emerged in the Lake Chad area in this case regarding the worsening livelihood. These have been named before as: water and climate change, socio-economic challenges and lack of inclusion of women. The Dutch (2019) and Swedish (2019) governments tend to look back more in history than the documents by other organizations in order to understand the problem regarding the worsening livelihood in Lake Chad better, which is an interesting insight. Water and climate change might have a negative impact on the socio-economic situation, which, as previously stated, might lead to conflict because people are desperate due to a lack of food and water. This type of conflict

that is being described here might result in an even worse effect on livelihood, as this conflict keeps other people from performing livelihood practices such as agriculture. US-AID and the governments of Sweden and the Netherlands have the same perception regarding the effects of conflict on a worsening livelihood, however the causes of the conflict are different according to these organizations. Moreover, The Norwegian Refugee Council (2018) adds more details as to why conflict has a negative influence on livelihood, as they state that violence in the area has destroyed food crops and infrastructure. These destroyed food crops result in people having less food to eat and to trade, which worsens conflict as the livelihood of those people is in decline. Furthermore, destroyed infrastructure results in people being less dynamic and this can have a negative influence on trade and livelihood practices such as fishing as well, because people need to be able to move towards the Lake shore in order to be able to perform these livelihood practices.

Experts that research the area (Okpara, 2016) and Mahmood & Ani (2018), go deeper into detail as to why livelihood has been impacted negatively in the Lake Chad area during the last couple of years. Okpara (2016) states in his article that the shrinking of the Lake has had a negative impact on the population because people are not receiving enough income to be able to cover important household expenditures, such as water, food, housing and clothing. It is interesting to see that in this article, Okpara has interviewed people who live in the area, using a study location on the south-eastern shore and also islands in Lake Chad, who state that the shrinking of the Lake is the most important reason for this development. This is an interesting insight, because apparently these people do not mention Boko Haram in these interviews. This might however be the case because they are scared for repercussions of Boko Haram. It is also interesting that people living in the Lake Chad area are trying to counteract the worsening livelihood by performing different sorts of agricultural practices, such as intensification and extensification of the fertile ground. Intensification means increasing the use of capital and inputs relative to land area (Eurostat, 2019), whilst during extensification the opposite happens.

Mahmood & Ani (2018) add to the livelihood-discussion in stating that Boko Haram has a direct negative impact on livelihood, because they go to villages to seize food items by threatening to use force. People are forced to hand over cattle and other food items to Boko Haram, which leads to people having even less food. Furthermore, people do not dare to go into the bushes outside the villages because it is unsafe there due to the presence of Boko Haram. It is being said by people living in the Lake Chad area that being in the villages is safe, but once people enter the bush Boko Haram might think these people are informants of for example the national government, which might even lead to death because Boko Haram might kill these people (Mahmood & Ani, 2018). People usually carry out agricultural practices in the bushes and not in the villages, but are now unable to do so because they are being threatened by the possible presence of Boko Haram. Therefore, livelihood practices such as agriculture and fishing become impossible to perform, which leads to a worsening in livelihood as well.

From the different insight brought forward through the analyzed documents, interesting points can be concluded. The shrinking of the Lake Chad has had a negative impact on livelihood in the area. However, it is clear to see that the shrinking of the Lake is not the only factor resulting in this worsening livelihood. The conflict that has emerged in the Lake Chad area as a result of presence of terrorist groups, particularly of Boko Haram, is another important reason for this worsening livelihood. One might however see a possible relation between the shrinking of the Lake and the upcoming of these terrorist groups. *“Climate change factors do not cause violent conflict, but rather merely affect the parameters that are sometimes important in generating violent conflict”* (Lind et al,

2010, p. 1). The relation between violence and conflict might thus indirectly be influenced by climate change factors, but it is hardly a direct relation.

5.1 What is the role of mobility and migration in the Lake Chad region?

Mobility and migration in the Lake Chad area are phenomena that have taken place for a long time in history. The Lake Chad area has a climate with two main seasons: the dry season and the wet season. The dry season is most intense between November and March, whilst the most precipitation falls during the short rainy season from July through September (Hansen, K., 2017). More than half of the farmers that are active in the Lake Chad Basin follow seasonal patterns in their practice of agriculture (Okpara, 2016). Farmers that used migration within these seasonal patterns did so for economic reason (Okpara, 2016). Fisherman for example migrate more during the dry season, because they need to be on the water in order to be able to fish, and therefore they need to move to the shore of the Lake. The same goes for farmers who perform agricultural practices. The farmers need water in order to do their agricultural practices, so many of those farmers move in order to access water for irrigation to enable them to produce food. Migration is thus influenced by the nature of the climate. Richard (2016) states that people migrating within the Lake Chad Basin can be explained through the fact that the majority of people do not want to leave their home or their community. People are attached to their home. It dominates decision-making, encouraging people to stay. Also, it encourages people to migrate locally when forced to by storms, floods etcetera (Richard, 2016). However, 'staying' does not mean that those people are not mobile, the people that are migrating are migrating to areas close-by.

Migration and mobility are therefore frequently occurring in the Lake Chad area. It is important to take into account that people do not 'just' migrate, there is always an underlying reason for people to migrate. The changing, mainly worsening social and political conditions for people living in the Lake Chad area makes terrorist organizations more powerful and this process continued steadily over the last couple of years (Magrin & de Montclos, 2018). Examples of economic reasons for people to migrate are people moving in order to be able to keep performing fishing and agricultural practices. Fluctuations of the Lake level have always taken place in the area, and as a result migration and mobility have always been part of livelihood strategies in the area as well.

The importance of being close-by to the Lake is analyzed by Sarch & Birkett (2000). In a research, roughly 25.000 households in the Lake Chad area were interviewed. The results show that 59% of the local population earned three-quarters of their income from farming, and 36% of the population earned their income as a combination of farming and fishing. For both of these practices, it is important to be close to the Lake shore, and it means that almost the whole population is relying on the opportunities the Lake offers to perform livelihood practices. It is also important to state that next to Lake Chad, there are no other natural water bodies close-by, so fishing households living in the Lake Chad area fish exclusively in the Lake (Sarch & Birkett, 2000). This is in line with what Dr. Okpara has stated during an interview: "So, fisherman for example migrate more during the dry season. So, they migrate during dry season and they move to the instant shore of the Lake." (Okpara, personal communication, 17-04-2019).

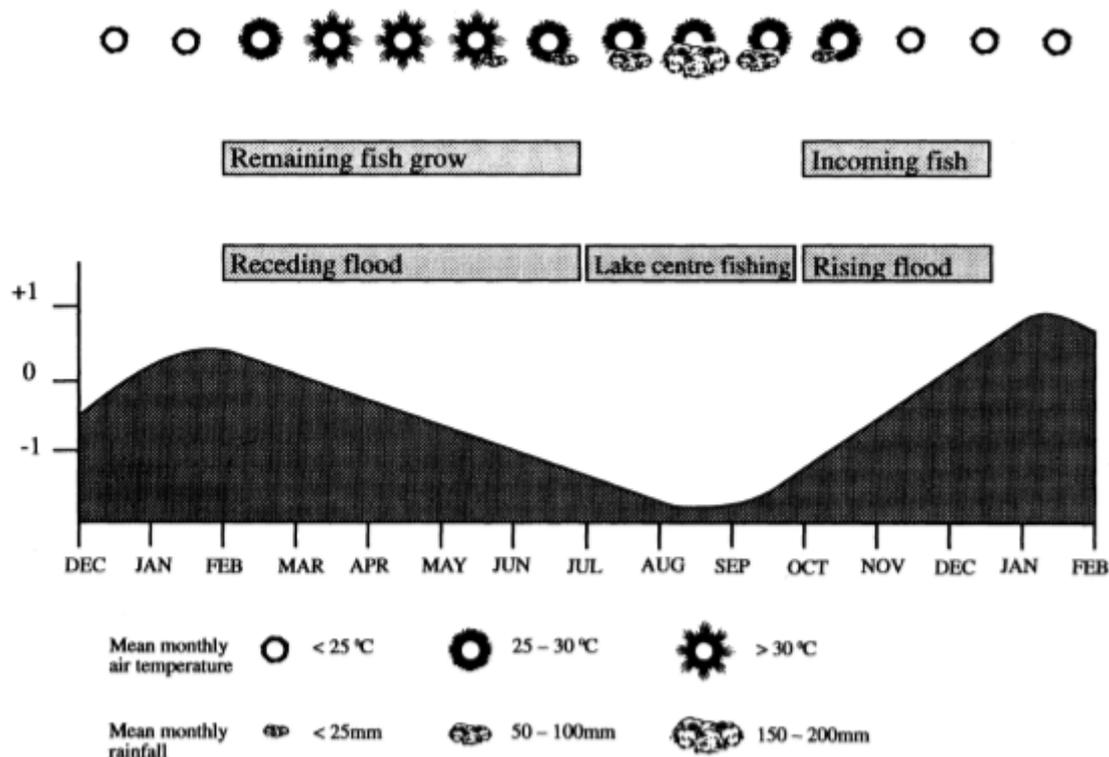


Figure 4: Fishing calendar derived from seasonal calendars drawn by village heads and master fishermen, and observations on the south-west shore of the Lake during 1993, 1994 and 1995. Relative changes in Lake level are indicated on the vertical scale (Source: Sarch M.T., & Birkett, C., 2000 (p. 164)

Figure 4 shows the fluctuation of water in a year, which shows that from September until January the water level is rising, whilst during the other months the Lake level is receding. This figure shows the mean of 1993, 1994 and 1995 so is not up to date, but it nonetheless indicates the fluctuating water level of the Lake which explains the migration practices for economic reasons for people living in the area. Sarch & Birkett (2000) state that flood-based fishing, which is fishing during the rising flood, seen in Figure 4, can be done close to the fishers' households, as there is much water around during this period. During the receding flood, members of the households would need to travel longer distances and this leads to a seasonal migratory lifestyle (Sarch & Birkett, 2000).

According to Dr. Dembele (2019), another economic reason for people to migrate is employment. There are people living in the area who are neither farmers, pastoralists nor fisherman, however from the figures above it is clear that not many people in the Lake Chad area are, as this is only the 5% left from the sample taken in the research of Sarch & Birkett (2000). These people move to other places such as N'Djamena, Chad in order to seek work or try to pursue their studies, but this is quite expensive so not a lot of people are able to do this (Dembele, personal communication, 10-05-2019).

It is important to take into account that the region of Lake Chad is situated in four countries: Cameroon, Chad, Niger and Nigeria. Often, according to Dr. Dembele (2019), people who are officially coming from one of those countries have citizenship in another of those four countries (Dembele, personal communication, 10-05-2019). There are various reasons for this, but it often comes down to the situation that people have lived in multiple countries within the Lake Chad area in the past because of their nomadic lifestyle, and in order to be a legal citizen of those countries people need to have citizenship. Because the culture and languages in the Lake Chad area are similar even though there are borders, people tend to stay close to Lake Chad and just migrate towards

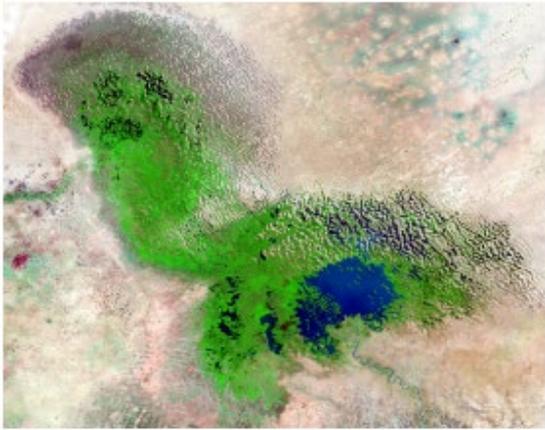
family or friends in area's close-by. It is therefore not perceived as an obstacle for people if they have to cross a border in order to move for example from Nigeria to Chad.

5.2. What new types of migration are related to the shrinking of Lake Chad?

As stated before, migration in the Lake Chad area is a phenomenon that has always taken place (Okpara, 2016). People migrate for example because it is necessary for them to be able to keep performing livelihood practices, such as fishing and farming (Okpara, 2016). As a result of this, it would be interesting to look into this paper's question whether the shrinking of Lake Chad triggers new types of migration. The water level in the Lake Chad has always fluctuated, but satellite pictures



Lake Chad, January 1973



Lake Chad, May-June 2018

Figure 5: Satellite pictures of Lake Chad in 1973 and 2018. (USGS, 2019).

show that the shrinking of Lake Chad is currently happening, as can be seen in the figure below. The amount of water in the Lake has evidently decreased during the last couple of decennia. This has an impact on mobility and migration, because people now sometimes need to move further in order to be on the shore of the Lake than as they used to be previously. Nowadays, temporary migration as a response to climate stress is a phenomenon that is already taking place in many areas, but the ability to migrate is dependent on different factors, such as the financial and social situation of people (Brown, 2008).

The question to ask here is: Does the shrinking of the Lake trigger new types of migration or are there other underlying reasons that trigger new types of migration? It is a fact that many people in the Lake Chad area are displaced and that there are a lot of refugees in the area. Bringing back the figures of MSF: *“Across Nigeria, Cameroon, Chad and Niger, violence has uprooted more than 2.3 million people from their homes. Some 1.7 million people are internally displaced within Nigeria, while hundreds of thousands of internally displaced people (IDPs) and refugees can be found in Cameroon, Niger and Chad”* (MSF, 2019). An attempt to answer these questions will be done in sections 5.2.1. till 5.2.3.

5.2.1. Impact of the shrinking of Lake Chad

The livelihood of people living in the Lake Chad area is being dominated by opportunities that the Lake offers, mainly agriculture and fishing. Once the main sources of livelihood are removed or become harder to access, it can trigger migration and conflict. Water is drying evidently, and as a result, people are losing access to water. People on the Lake shore are seeing the water

disappearing. During my interview with Dr. Dembele, he stated: *“When you are on the ground, even the road that leads you from N’Djamena to the Lake region, you can see that there are some areas where water was available maybe 30 years ago, and now it is all dry.”* (personal communication, 10-05-2019). This is in line with what the satellite pictures in figure 5 show us. People move based on water availability. Migration as a result of water availability is thus connected to the state of the climate.

It is hard to state whether the impact of the shrinking of the Lake Chad has directly led to new types of migration. The shrinking of the Lake Chad rarely affects livelihood groups directly (Okpara, 2016). However, the shrinking of the Lake does indirectly influences livelihood opportunities and that does indirectly have an effect on migration. One reason for the shrinking of the Lake to have an influence on migration is a consequence of what is described before: people who need to migrate in order to be able to perform livelihood practices such as fishing and farming need to move longer distances as a result of the shrinking Lake.

The shrinking of the Lake however leads mainly to an increase in a type of migration, namely the migration of people with nomadic lifestyles that already was taking place before the shrinking of the Lake started. In short it can be concluded that the shrinking of the Lake has not directly led to new types of migration, because the type of migration described above was taking place even before the shrinking of the Lake happened, for example due to yearly fluctuations of the water level.

Despite climate change possibly having a significant impact on people’s decision to migrate, it is hard to substantiate this statement because other factors may play an additional role in migrating as well. The key problem with the concept of ‘environmental refugees’ is that the implicit assumption is made that there exists a direct causal link between environmental change and migration (Tacoli, 2009). However, if you ask people for reasons they have migrated, they often will not state that environmental change is the main reason for this migration (Tacoli, 2009). People possibly could blame the change in livelihood possibilities for example as a reason to migrate, whilst climate change might be the main instigator of this change in livelihood possibilities.

5.2.2. The rise of terrorist groups

An important reason for many people to flee is the increased presence of terrorist groups. The most notorious one that has gathered international publicity is Boko Haram. This terrorist group has become bigger and more notorious during the last decennium (Mahmood & Ani, 2018). This can possibly be accounted to the fact that Boko Haram has become a lot more radical during this period, using more violence which made the organization more visible on an international level (Mahmood & Ani, 2018).

To be able to better understand the role of Boko Haram in the Lake Chad crisis that is currently occurring, it is necessary to dive deeper into the history of Boko Haram during the last to understand why the terrorist group is performing this way. Mahmood & Ani (2018) state that Boko Haram officially exists since the early 2000s, starting off as a “religiously inspired societal group”. The terrorist group underwent a big transformation in 2013, when it became a rural-based insurgency and started to increase attacks on civilian targets (Mahmood & Ani, 2018). This change of tactic can be explained by Boko Haram’s new leadership in 2013 under Abubakar Shekau, who pursued a path of violence, bombings and suicide attacks. Boko Haram started off as a Nigerian-based organization, but soon expanded its insurgencies to the other countries bordering Lake Chad: Cameroon, Niger and Chad. Boko Haram reportedly has a close bond with ISIS, cooperating with this terrorist group (Mahmood & Ani, 2018). ISIS has gained significance mainly since 2014, launching an offensive on Mosul and Tikrit in June 2014 (Wilson Center, 2019).

The important question for this research is: has Boko Haram become more aggressive and powerful as a result of the shrinking of Lake Chad, or are there other reasons for this development? According to Dr. Dembele (2019), there is no clear answer to this question, but religion plays an important role in the development and radicalization of Boko Haram, and religion is not a direct result of the shrinking of the Lake. However, many young people in the area do not join Boko Haram for religious reasons, but rather because of a lack of other livelihood opportunities. Education, for example is not developed and the youth has nothing to do all day. Boko Haram promises food, water, money and sometimes even marriage for young people if they join the organization. This is interesting for the youth, because these are things that they would not have without joining Boko Haram (Dembele, personal communication, 10-05-2019).

Boko Haram has been the main instigator of fear for the local population living in the Lake Chad area. The fear of Boko Haram can be described as a result of the actions of this terrorist group in the region. Quoting Dr. Dembele from our interview: *“So what they (Boko Haram) have been doing is the same thing. They go into villages, they kill, they rape, they steal money, cattle, animals, all that sort of things”* (personal communication, Dr. A. Dembele, 10-05-2019). Migration has been greatly influenced by Boko Haram’s violence in the area, because people are scared that Boko Haram might attack again in the villages. The insurgency of Boko Haram has resulted in spill-over effect. This means that often people cross a national border whilst trying to flee. Migrating across a national border is relatively ease in this area, because people often have family and friends in bordering countries (Dembele, personal communication, 10-05-2019). Some people were threatened to join Boko Haram. Quoting Alfred (2016): *“Some faced extreme pressure from friends, family or colleagues, while others saw the group as their least bad option in impoverished and marginalized northeast Nigeria”* (Alfred, 2016, p. 1)

As a result, the upcoming of mainly Boko Haram have had a big influence on conflict during the last couple of years. Next to those experts, we have found out that also humanitarian organizations such as Oxfam Novib (2016) and MSF (2019) state that Boko Haram is a big threat for the local population, and has had an influence on conflict.

Dr. Dembele (2019) also states that the rise of Boko Haram made the Lake Chad area a lot less safe for people to live, especially on the islands within the Lake Chad area. There are around 600 of islands, and some islands inhabit over 2000 people. These islands often lack police-stations and there is no military force active on those islands. This gave Boko Haram the opportunity to do what they wanted on these islands, because the people living there had no chance to protect themselves. As a result of this, many people were not feeling safe anymore on those islands, resulting in them fleeing. This phenomenon is an example of how people get displaced as a result of the insurgency of Boko Haram (Dembele, personal communication, 10-05-2019). UNHCR (2019) can back up these statements by the provided statistics about internally displaced persons within the Lake Chad region. Figure 3 in section 4.2.1. provides statistics of the large amount of IDP’s, and the insurgency of Boko Haram has played a large role within this.

5.2.3. Has the shrinking of Lake Chad had an influence on new types of migration?

As said before, migration is a phenomenon in the Lake Chad region that has taken place for a long time. Different types of migration have taken place within this region. This section aims to clarify and summarize which types of migration were already occurring before the shrinking of Lake Chad, and which types of migration were triggered by the shrinking of Lake Chad or the possible results of this shrinkage.

According to the documents that have been analyzed before, it can be suggested that the shrinking of the Lake Chad has not had a direct influence on migration in the area, as those documents state that conflict is the main instigator of this migration. However, it could be the case that indirectly environmental change has led to these conflicts, and this way environmental change is indirectly one of the reasons for migration and displacement in the Lake Chad area. People who flee the area mostly flee to surrounding areas where family is living. This way, they do not necessarily escape the entire conflict, as there might be conflict in the areas these people are fleeing to. However, people choose to flee to these areas as they know the area, speak the language and have personal connections. Furthermore, people often do not have a lot of money and as a consequence are not able to flee to places further away. There are lots of refugee camps funded by humanitarian aid organizations close-by to the Lake Chad area, and moving further away might mean that these kind of refugee camps where food, water and shelter is distributed are not available anymore.

On the other hand, Boko Haram has radicalized only from around 2013, so it has been only six years since this organization is attacking and terrorizing the area (Mahmood & Ani, 2018). The water level has not reduced very much during this period. Therefore, it can be concluded that the shrinking of the Lake has not directly had an influence on the upcoming of Boko Haram and other terrorist groups. The shrinking of the Lake however leads mainly to an increase of migration that already was taken place before the shrinking of the Lake started, so in short it can be concluded that the shrinking of the Lake has not directly led to new types of migration, but has intensified existing migration trends.

The question this research poses, if the shrinking of the Lake Chad has indirectly led to migration, might however be true. As stated before, people who join Boko Haram, especially the youth, do so because they have a lack of opportunity to develop themselves in the Lake Chad area. The shrinking of the Lake might be an indirect reason for this, because of its negative impact on livelihood, leading possibly to more poverty. It is a fact that many people are displaced in the area, living in refugee camps for example, but the shrinking of the Lake is not a direct instigator of this phenomenon.



Figure 6: Reasons and period for people in the Lake Chad Basin to get displaced. (IOM, 2019, p.3.).

Figure 6 shows figures from a research of the International Office of Migration (IOM), showing that 94% of the people in the Lake Chad Basin who are displaced claim conflict as the instigator of this displacement. Less than 1% of the people who are displaced in the Lake Chad Basin area name natural disasters, such as the shrinking of the Lake, as the reason for displacement. IOM does make a distinction between refugees and IDPs. The report states that there are nearly 2.5 million IDPs, and about 160.000 refugees within this region. This proves the point that migration and displacement in the Lake Chad area can be mainly attributed to conflict and not to the shrinking of the Lake. The shrinking of Lake Chad plays a role, but it is a very marginal role. This is shown in figure 7 as well. However, it is important to take into account that there is no legal category for environmental- or climate refugees right now, which might resonate people to state that the insurgency of Boko Haram is the reason for displacement instead of climate change, in order to claim asylum. A climate that is

increasingly changing affects already vulnerable livelihoods, which can cause migration as well (Vivekananda, 2019).

Graph: Reasons for displacement in the Lake Chad Basin in 2018 compared to 2016

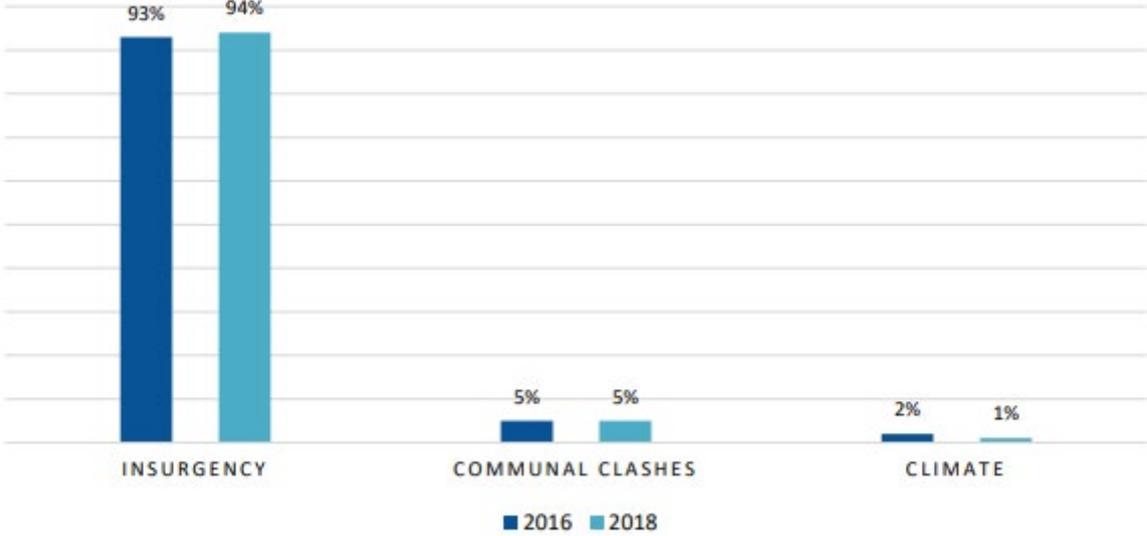


Figure 7: Reasons for displacement in the Lake Chad Basin in 2018 compared to 2016, (IOM, 2019, p.20)

Before the rise of Boko Haram, most types of migration were the result of the changing size of Lake Chad. As stated before, the size of Lake Chad has always fluctuated a lot. The Lake was not always shrinking, sometimes there were big floods as well. Migration in this period was the result of the changing size of the Lake. In the period before Boko Haram, ‘seasonal migration’ often took place as a result of the need to be at the Lake shore in order to perform livelihood practices such as fishing and agriculture. In this period people moved based on water availability (Okpara, personal communication, 17-04-2019). From this information it can be concluded that the upcoming of terrorist groups has led to new types of migration, namely because people are now scared and flee the area to seek for safety.

5.3 How does the shrinking of the Lake affect conflict in this region?

“Climate change factors do not cause violent conflict, but rather merely affect the parameters that are sometimes important in generating violent conflict” (Lind et al, 2010, p. 1). This statement is interesting for this research, because it questions that the shrinking of the Lake has a significant direct impact on conflict in this region. It is evident that the shrinking of the Lake in combination with the growing population leads to conflict, as there is less water available for a larger population who needs the water in order to perform livelihood practices. In this sense, climate change which results in the shrinking of Lake Chad affected the parameters that can generate conflict, namely that there is less water available for the population, which can lead to violent conflict because this is a necessity of life.

Another perspective states that it is not climate change as such that causes conflict, but the effectiveness of governance and institutions to respond to climate shocks and variability which will determine the likelihood of conflict and/or collaboration around resources (Lind et al, 2010). The national governments of Cameroon, Chad, Niger and Nigeria do not give a lot of attention to the Lake Chad area, although they have established the previously mentioned Lake Chad Basin Commission

(Dr. de Vries, 2019). This organization however does not actually seem to work in an effective and useful way (Dr. de Vries, 2019) & (Dr. Okpara, 2019). More about this will be written later on in this research. Right now, the research will look further into how the shrinking of the Lake affects conflict in this region.

5.3.1. Agricultural conflict

The shrinking of Lake Chad leads to a specific kind of conflict, because as mentioned before, people need to be positioned at the lakeshore in order to be able to perform livelihood practices such as fishing and agriculture. In our interview Dr. Okpara (2019) states: “So when they migrate, there is always this conflict, this aggression, because who gets what? It applies to farmers also, most farmers will perform agricultural practices. And for this, you need water to practice irrigation agriculture. So, many of them have moved in order to access water for irrigation to enable them to produce food. So you can see that people do not just move, they do not just migrate. They migrate for economic reasons, because they want to be able to govern a certain portion of the Lake Chad land or a certain portion of the Lake Chad resources.” (Okpara, personal communication, 17-04-2019). It is of course important to take into account that laws and rules about land ownership are not being regulated the same way in the Lake Chad area as we are used to in the ‘Global North’. There is often uncertainty about who owns which land. People migrate partly for economic reasons, they are dependent on the possibilities the Lake has to offer, and the shrinking of Lake Chad results in tensions because people have to share a smaller area than before in order to be able to perform their livelihood practices, and this causes violence and conflict. Quoting Land Links (2010): *“Open access land-use practices threaten the sustainability of forests and pastureland. Land-use conflicts between pastoralist and agricultural interests have intensified, adding to migration pressure and undermining social cohesion. The legal framework and institutions governing Chad’s land and other natural resources are inadequate to manage the serious challenges described above.”* (Land Links, 2010, p.1).

In line with this, it is more and more understood that conflict and environmental change are related with each other. Societies already in conflict are particularly exposed to the impacts of climate change (Schaar, 2018). This theory turns around the statement that climate change leads to conflict, by saying that regions where conflict is already occurring are more prone to the effects of climate change. This could turn the situation into a vicious circle, where climate change leads to conflict, and this conflict emerges in a worse way as a result of the emerging effects of climate change.

5.4. In what way do state and non-state actors have an influence on livelihood changes within Lake Chad?

As said before, transnational actors, for example media and terrorist groups, are taking a more important place in international politics as well as non-governmental organizations (Paley, 2008) Non-state actors like these affect the strategic dimensions of the game in international interaction. If non-state actors are not taken into account whilst doing research, these theories and models have not identified accurate and credible correlational mechanisms that describe the true reasons why dynamics occur in the real world (Paley, 2008). The question to answer here is whether state and non-state actors have an influence on the livelihood dynamics existing within Lake Chad. Analysis of livelihood considers how families utilize and combine different aspects (financial, social, natural, physical and human) to pursue a strategy of livelihood, for example farming, in order to survive (Scoones, 2009). Livelihood is explained as: comprising ‘people, their capabilities and means of living, including food, income and assets’ (Chambers & Conway, 1991)

5.4.1. Lack of governance: failing of the Lake Chad Basin Commission

As noted earlier, The Lake Chad Basin Commission is an organization set up by the governments of the states involved in the Lake Chad Basin area: Cameroon, Chad, Niger and Nigeria, but also Algeria, Central African Republic, Libya and Sudan. Okpara states that the Lake Chad Basin Commission is financed by the national governments of the involved countries, as well as independent donors. The organizations has meetings where representatives of the involved countries come together (Okpara, personal communication, 17-04-2019). The Lake Chad Basin Commission has a mandate of ensuring that the transboundary water resources of the Lake are well managed (Okpara, personal communication, 17-04-2019). The function of the Lake Chad Basin Commission is to make sure that the whole Lake Chad Basin is not drying out, or at least that this drying happens in a marginal way. The organization does not seem to be able to ensure this. Furthermore, the Lake Chad Basin Commission has a function to ensure that livelihood activities are not affected, however unfortunately this is not happening too as well (Okpara, personal communication, 17-04-2019). This means that the Lake Chad Basin Commission is not functioning well, because it is evident that the Lake is drying and that livelihood is worsening in the Lake Chad area. Galeazzi, Medinilla, Marclint Ebiede and Desmids (2017) state that the Lake Chad Basin Commission seems to have largely failed in reaching its objectives to develop the Lake Chad region and promote sustainable use of the basin's resources. The main actors have invested some political capital in the LCBC-project, but not enough to help improve the situation (Galeazzi et al, 2017).

The reason why the Lake Chad Basin Commission is not working efficiently does not seem to be a lack of money, according to Dr. Dembele (personal communication, 10-05-2019). Funds are raised internationally for this organization, because it is recognized that there are many problems regarding the Lake Chad area. Despite enough financial resources, the organizations does not seem to do enough with these funds, as for example Galeazzi et al (2017) state that the organization is not managing to reach its objectives. The question that arises here is why the Lake Chad Basin Commission is not functioning in an effective way despite having the funds to function well. Dr. Okpara states: *"So, what I think that needs to be done is probably to engage the people. The local people have to be engaged in managing their life, in managing their resources that are available to them, in managing their community. The government has failed, so the people should be empowered to take their live in their hand"* (Okpara, personal communication, 17-04-2019). Reflecting on this statement, right now, the local population does not have enough input within the governance of the Lake Chad Basin Commission, which might lead to the LCBC taking measurements that are not being seen as the most important by the local population. Empowering them at least partly within the Lake Chad Basin Commission might help to solve this problem.

An interesting suggestion was made during an interview with Dr. de Vries (2019). She states that national governments might benefit from the fact that the Lake Chad Basin Commission does not work in a proper way. The Lake Chad Basin Commission is responsible for policy-making and executing regarding the Lake Chad area, such as maintaining the water level (Dembele, personal communication, 10-05-2019), so this creates a sort of 'cover' for national governments, because right now it seems like the governments are trying their hardest to try and improve the current situation regarding the shrinking of Lake Chad, but in essence, are not doing a lot to really achieve so. The national governments are not responsible anymore for this policy-making, because it is a Lake Chad Basin Commission cross-border operation. This way, governments create the impression that a tool of management is created, and as a result individual countries can continue implementing policy that they really profit from, for example in getting more power by governing rivers that lead towards Lake Chad (Galeazzi et al, 2017). De Vries (2019) states: *"The countries involved in the Lake Chad crisis often do not give a lot of attention to these parts of the country involving the Lake Chad area,*

because these governments are mainly trying to ‘survive’ and remain power, and the poor Lake Chad area does not help them specifically in remaining this power” (de Vries, personal communication, 06-05-2019).

Thus, the Lake Chad Basin Commission, whose function it is to try to stabilize and improve livelihood possibilities within the Lake Chad area, is failing to do so, resulting in livelihood possibilities not improving. The environmental monitoring network in the Lake Chad Basin was described as sparse, poorly funded, badly operated and inadequate (UN, 2018).

5.4.2. Humanitarian aid organizations

Besides the Lake Chad Basin Commission, humanitarian aid organizations also have an influence on the livelihood of people in the Lake Chad area. Many humanitarian aid organizations are active within the Lake Chad area as a result of the difficulties, such as food and water shortage and a lack of livelihood opportunities, people are experiencing. Many people are displaced or are experiencing bad livelihood conditions right now, and for that reason those humanitarian aid organizations are active in the Lake Chad area to help those people. Examples of organizations that are represented within the Lake Chad area are Oxfam Novib and MSF. The fact that those organizations are active in the Lake Chad area could suggest that the situation in this region is at least worrying, because those organizations are not active in regions where nothing is considered to be wrong.

There are many humanitarian aid organizations active within the Lake Chad area, but it is questionable whether those humanitarian aid organizations work together in an effective way. Quoting Dr. Okpara (2019): “There are several international NGO’s working on different issues, different humanitarian issues in the Lake area. Most of them, I see a lot of duplication of effort. I feel that there should be a common ground where all of these NGO’s can reach the consensus on what to do actually in order to address both the humanitarian challenges in the area and to ensure sustainable development in the Lake area.” (Okpara, personal communication, 17-04-2019). Apparently, most humanitarian aid organizations do not work together sufficiently and therefore lots of work is being duplicated, which does not help the local population in the most sufficient way. This can also be argued by looking back at the document analysis, in which I highlighted how it appears that the humanitarian aid organizations in combination with national governments cannot reach consensus on what really the core problems in the Lake Chad area are.

Another organization active within the Lake Chad region is IOM, the International Office of Migration. This organization has multiple offices within the Lake Chad area. This suggests that migration is high on the agenda for this organization, which is important to take into account. As there are many different communities living within the Lake Chad area, there are also many different communities living in refugee camps within the area. Different communities living together in the same refugee camp can lead to problems within this camp, because there can be tensions between those communities. Dr. Dembele from IOM states: *“So you have all of those people living on the camp. You have all of those different populations. Coming back to the objectives, we are trying to maintain social cohesion between all of those groups. Making sure the tensions that can exist between those communities does not get to the proportion when it is out of control. Furthermore, we are trying to ensure capacity building is happening for means of improving the livelihood of those communities.”* (Dembele, personal communication, 10-05-2019). Possible problems within the refugee camps within Lake Chad are described by Oxfam (2016). They state that within camps, people are at risk of neglect, violence and exploitation.

It is interesting that so much attention is going towards the Lake Chad area when it comes to humanitarian aid organization. What makes this area so important for those organizations? The

Western media could play a role in this, according to Dr. de Vries: “I think there is a lot of interest for African terrorism, and this can be seen as the result of the ‘sensationalism’ and fear that is associated with the battle against terrorism. The media plays a big role in this, because they write a lot about these topics” (de Vries, personal communication, 06-05-2019). What this statement implies is that the presence of terrorist groups in the Lake Chad area is the most important reason for humanitarian aid organizations to respond and be active within the area, whereas the shrinking of the Lake and the worsening livelihood conditions that result from the shrinkage are less high on the agendas of humanitarian aid organizations. Another example of this is a documentary called ‘Famine Scam’ (2015), which describes the situation in Niger in 2005 when there was a ‘famine’. However, people living in Niger described the situation at the time as not worse than normal. However, because of media reportages the story of ‘famine’ blew up in world news, resulting in an enormous humanitarian operation in Niger. If anything, this humanitarian operation was bad for the farmers living in Niger, as they could not sell their food anymore because people could get it for free because of the aid those humanitarian aid organizations were providing. The most important thing to take from this is however how media attention can exaggerate a situation. This appears for the Lake Chad region as well. The story the media is telling might influence the situation within Lake Chad, as it might for example influence the decisions of humanitarian aid organizations.

5.4.3. Influence of terrorist groups on livelihood

As said before: Boko Haram has been considered the main source of fear for the local population living in the Lake Chad area by humanitarian aid organizations as well as researchers within this area like Dunn (2018). The fear of Boko Haram is understood by my interview partner dr. Dembele as resulting from the violence committed which according to Dr. Dembele includes cattle, theft, pillage of villages and death in the region (Dembele, personal communication, 10-05-2019). Conflict has a negative influence on pursuing livelihood activities, and as a result, population in conflict-zones may be forced to leave this area, which might deprive them of livelihoods (Dunn, 2018).

However, Boko Haram also has influence on livelihood practices. Agricultural practices performed within the Lake Chad area are often combined with trade. Dr. Dembele states:

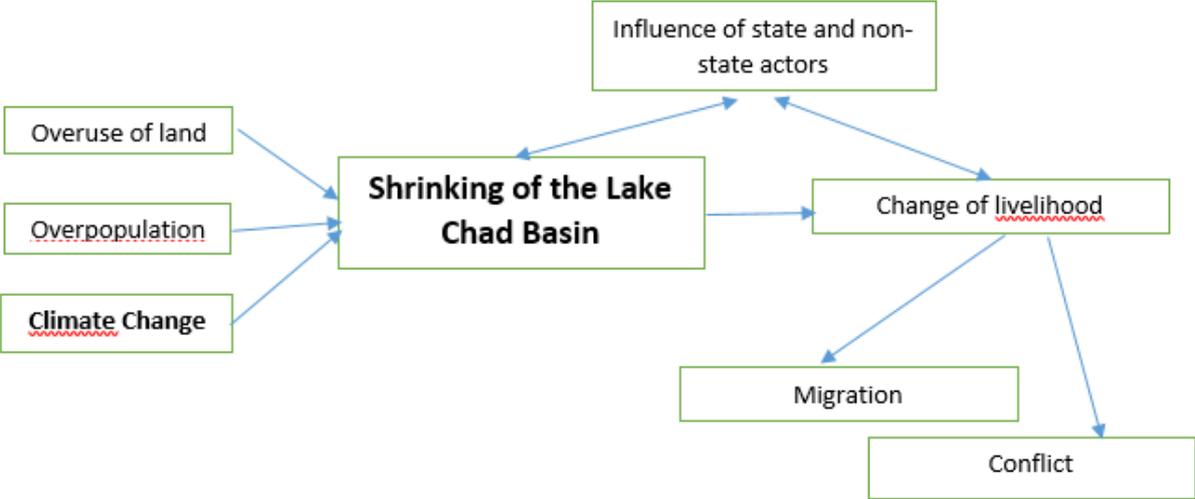
“Agriculture, fishing, they were selling their fish to Nigeria and to the capital of Chad, N’Djamena. There are some species of fishes that is not really appreciated by the Chadian population, but, it is being consumed in Nigeria. So you have a really big economic center surrounding the fishing industry. It is not really industrial obviously, because they do not really have processed industry of this fishing, it was just putting the fish on boats and take it all the way to Nigeria to sell it. But, since Boko Haram, they closed the border to Nigeria, people are scared obviously to make the trip all the way to Nigeria, to go to the border and reach the shore of Nigeria, some people abandoned what they have been doing because Boko Haram has been burning boats. So it really affected the livelihood of the populations.” (Dembele, personal communication, 10-05-2019).

Mahmood & Ani (2018) show another example of an (indirect) negative influence on livelihood as a result of terrorist groups within the Lake Chad region is the prohibition of the use of motorcyclse in order to prevent attacks within this region. However, motorcycles are a common source of livelihood for the youth in the region, so the prohibition of it influences the livelihood of the youth within the Lake Chad region negatively as well (Mahmood & Ani, 2018)

Following these statements by my interview partner it can be argued that Boko haram does have a big influence on livelihood within the Lake Chad area. People are scared and as a result are not being

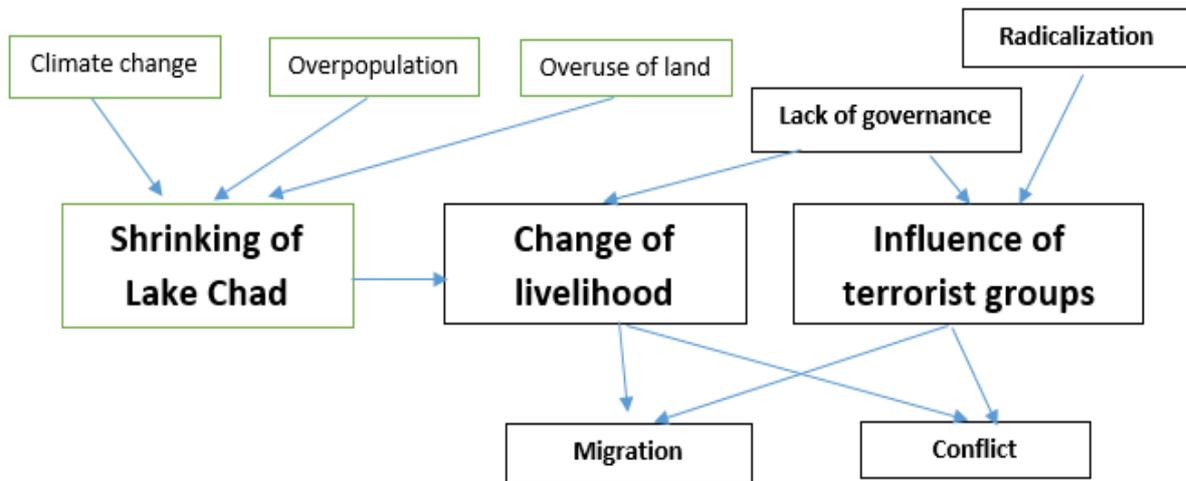
able to perform livelihood practices such as fishing as they did before, in fear of violence. This also can result in displacement and forced migration. People are not able to perform livelihood practices as before and therefore do not have an income. In combination with the fear of Boko Haram they might decide to migrate or flee towards refugee camps, in order to be a bit safer.

5.5. Re-evaluating the conceptual framework



At the start of this research, this was the framework that was used in order to describe the possible situation in the Lake Chad area, where several factors (overuse of land, overpopulation and climate change) were considered the main reasons of the shrinking of Lake Chad. The shrinking of Lake Chad changed the livelihood of the people living there, having an influence on migration and conflict. Both state and non-state actors had an influence on a change of livelihood as well as on the shrinking of the Lake.

Looking back at this framework, we see that, based on the document analysis and interview analysis, the current dynamics taking place in the Lake Chad area are a lot more complicated than anticipated in the initial conceptual framework. The reasons of the shrinking of the Lake Chad area are still valid. However, based on my analysis, the header ‘influence of state and non-state actors’ should be split up between ‘lack of national governance’ and ‘influence of terrorist groups’. An important insight from this research is that those terrorist groups have a significant influence on migration, conflict and change of livelihood. Furthermore, reflecting on this conceptual framework in light of the above investigations it becomes clear that ‘shrinking of the Lake Chad area’ was in fact not the most important factor that caused change of livelihood, migration and conflict as initially expected. The shrinking of the Lake Chad area still had an influence on livelihood, migration and conflict, but this influence should be seen as indirect. The shrinking of Lake Chad has slightly contributed in strengthening terrorist groups, but is not the main reason for the worsening situation regarding Lake Chad. For clarity, a new conceptual framework has been made which takes into account the investigations that this research has done.



As can be seen in the new conceptual framework, the shrinking of Lake Chad has an influence on livelihood. This can be described due to the fact that the shrinking of the Lake reduces options for people in the region to perform livelihood practices such as fishing and agriculture. Furthermore, a lack of governance, mainly of the national governments of the countries concerned in the Lake Chad crisis, has an influence on both the change of livelihood and the influence of terrorist groups. The lack of governance from for example the Lake Chad Basin Commission results in a failing governance in trying to stop the shrinking of Lake Chad for example, which has a negative influence on livelihood for people living in the region. Furthermore, the lack of governance also results in terrorist groups such as Boko Haram in gaining more influence in the area. Radicalization of Boko Haram, for example through a change of leadership, also has an effect on the influence of terrorist groups, as this radicalization often makes them more powerful.

Change of livelihood and the influence of terrorist groups through the mechanics explained above can exacerbate migration and conflict. A worsening livelihood situations can thus result in people migrating, as they will try to improve their livelihood in another place. Change of livelihood can also lead to conflict because people are dissatisfied with the situation, and the lack of water and food can make people desperate and angry. The influence of terrorist groups leads to migration because people move away because they are scared. The high number of displaced people in the area in combination with the presence of refugee camps can be read as an indication to support this argument. Influence of terrorist groups also leads to conflict because armed forces are trying to fight these terrorist groups. Furthermore, terrorist groups are often performing violent attacks on the local population.

6.1. Conclusion: how has the shrinking of Lake Chad affected people's livelihoods and has the shrinkage led to conflict and migration?

The research question this paper is trying to answer is: How has the shrinking of Lake Chad affected people's livelihood and has the shrinkage led to conflict and migration? Relevant literature on the topic and an analysis of a variety of documents from different sources indicates that during the last couple of years, a crisis has emerged in the Lake Chad region. The livelihood of people living in the Lake Chad region has been affected in a negative way during this period. The reason for this negative impact on livelihood should however only slightly be accounted to the shrinkage of Lake Chad. The shrinking of Lake Chad has partly contributed to a negative impact on livelihood because it has

become harder for people to perform livelihood practices such as fishing and agriculture as a result of the shrinking of the Lake. To perform these kind of livelihood practices, people have to be close to the shore of the Lake, which has become harder since the Lake started shrinking. Therefore, people have to move further distances and this has a negative influence on livelihood. However, there are other factors that influenced livelihood practices in the Lake Chad region besides the shrinking of Lake Chad. Lack of governance and the presence of terrorist groups have had a negative influence on livelihood as well. An example of the lack of governance in the Lake Chad region is the failure of the Lake Chad Basin Commission. The Lake Chad Basin Commission has a mandate of ensuring that the transboundary water resources of the Lake are well managed, but is failing to do so. As a result of this failure, livelihood in the Lake Chad region has been influenced negatively as well. Furthermore, the influence of terrorist groups on livelihood should not be underestimated. The presence of terrorist groups such as Boko Haram scares people, resulting in them sometimes not being able to perform livelihood practices as before. People are scared to leave villages and this is often necessary to fish and perform agriculture.

Migration and mobility are frequently occurring in the Lake Chad region. It is important to take into account that people do not 'just' migrate, but that there is always an underlying reason for people to migrate. The livelihood of people living in the Lake Chad area is being dominated by the opportunities that the Lake offers. Once the main sources of livelihood are removed or become harder to access, it can trigger migration and conflict. A negative impact on livelihood is therefore closely related to conflict and migration in Lake Chad. The shrinking of Lake Chad should be taken into account when investigating the role of conflict and migration in this region, but it does not play the most important role. Migration-wise, both document analysis as personal interviews have shown that the influence of Boko Haram can be seen as the most important factor influencing livelihood in the Lake Chad region. Many people have been internally displaced as a result of the insurgency of Boko Haram, because they are scared of this terrorist group. The shrinking of Lake Chad can play a small role in the rise of influence of Boko Haram, as people are desperate and join the organization as an emergency solution. However, it appears that the radicalization that Boko Haram has been going through during the last couple of years is the most important reason that it has become such an influential organization in the Lake Chad region. As a result of this rise of Boko Haram, more conflict has emerged in the Lake Chad region. While there is also conflict taking place in the Lake Chad region as a result of the shrinking of Lake Chad, this type of conflict appears to be less present in the region than conflict induced by Boko Haram. The type of conflict Boko Haram is inducing is often a clash between the terrorist group and the Multi National Joint Task Force, a military organization which has a mandate of contributing to restoring a safe and secure environment in the areas of the Chad Basin affected by Boko Haram through increased regional cooperation. The shrinking of Lake Chad has an influence on another type of conflict occurring in the Lake Chad region, namely that people need to perform livelihood practices at a smaller scale, resulting in tensions because people now have to 'share' a smaller area for the same amount of livelihood practices such as fishing and agriculture.

6.1.1. Recommendations for further research

This research mainly focused on the influence of the shrinking of Lake Chad on livelihood dynamics, conflict and migration. However, as the above conclusion suggests, it becomes clear that the influence of the shrinking of Lake Chad is not as influential as expected at the start of this research. Therefore, further research could be done in order to understand and address the current problems within the Lake Chad region. In further research, I would recommend not focusing as much on the shrinking of Lake Chad, but more on the influence of terrorist groups on the current population. Furthermore, the failure of the Lake Chad Basin Commission should be looked further into, because

the idea of such an 'umbrella' organization within this region on itself is very good, however the implementation and execution of this organization within the Lake Chad region is currently ineffective. Further research could therefore try to investigate how the Lake Chad Basin Commission can work in a more efficient way, in order to really help the people living in the Lake Chad region. Another insight for new research could be to find out how humanitarian aid organizations that are working in the Lake Chad region can cooperate more in order to prevent that 'double work' is done. Right now, plenty of humanitarian aid organizations active within the Lake Chad region that are all doing a lot of work to help the local population, but with more cooperation between those humanitarian aid organizations, the local population would profit more from this help.

6.1.2. Critical reflection

After conducting this research, it is important to reflect on what could have been done better in order to improve further researches. First of all, it would have been better if there was a possibility to actually go to the area and perform interviews with the local population. That way, it would have been easier and more accurate to research the dynamics taking place in the area. Right now, research findings were dependent on knowledge of other experts, which in essence is not wrong, but personal interviews with the local population would have maybe given more interesting insights. Unfortunately for this research this was not possible.

Furthermore, it would have been helpful if more interviews could have been conducted, mainly for triangulation and to gather even more interesting insight that could be helpful in answering the research questions. However, within the time scope of this research project it was really challenging to find interview partners that were available because of the distance and my lack of personal contacts in the area.

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Appendix A: Interviewguide

General questions:

- What is your discipline?
- In what way do you have expertise on the Lake Chad Basin?

Migration

- What is the role of mobility and migration in this region of the world?
- Do you think environmental change has changed the migration-mechanics taking place in the region?
- Do you think the shrinking of the Lake leads to mass-forced migration?
- Migration is a phenomenon that has taken place since before the shrinking of the Lake started. How can a distinction between forced migration and 'seasonal'-migration be made?

Conflict

- Do you think the shrinking of the Lake has resulted in the growth of terrorist groups in the region?
- In what way does the growing population in the area influence conflict-situations?
- Do you know what kind of NGO's are active in the area?
- Do you know any local newspaper that right about the current Lake Chad situation?

Influence on livelihood

- In what way does the shrinking of the Lake change the livelihood of people, or doesn't it change the livelihood of people at all?
- What state and non-state actors play an important role within the Lake Chad Basin?
- To these state and non-state actors have an influence on the livelihood and the change of this livelihood of people in the area?
- In what way does a possible change of livelihood influence (forced) migration?
- In what way does a possible change of livelihood influence conflict in the area?

