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Niger
Case Study Report
Tamer Afifi

1. INTRODUCTION

1.1. Synthesis of context

Situated in the heart of the West African Sahel, the Republic of Niger has an area of 1,267,000 km². It is bordered by Mali and Burkina Faso in the west, by Nigeria and Benin in the south, by Chad in the east and by Libya and Algeria in the north. Its borders are 700 km from the Gulf of Guinea and 1200 km from the Mediterranean Sea. With low altitudes (between 200 and 500 m), the relief is characterized by ancient massif mountains in the northwest part of the country. Moving south, from west to east, several plateaus model the landscape that ends in vast sand plains, right to the bed of Lake Chad. Niger is rainy from June to September and dry from October to May (UNDP 2006).

As can be seen from Figure (1), Niger consists of 8 main regions, namely Agadez, Dosso, Diffa, Maradi, Niamey, Tahoua, Tillabéri and Zinder.

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The population of Niger is estimated to be 14 million (CIA, 2005). The most densely populated regions are Maradi and Dosso that correspond with the narrow band of arable land in the south. The areas less densely populated correspond to the two largest regions, Agadez (mostly desert) and Diffa. 86 percent of the population live in rural areas. Urbanisation has increased (from 13 percent in 1977 to 16.3 percent in 2001) mainly due to demographic growth and rural exodus. According to future projections, an increase of 30 percent is expected by the year 2020 (UNDP 2006).

With respect to the Human Development Index, Niger ranks last out of 177 countries, with an average life expectancy of 44 years (UNDP 2006). It ranks second in the global context for infant mortality. Forty percent of children suffer from malnutrition and growth deficiency and less than one child out of four completes his primary studies (UNICEF 2007). Nearly half the population of Niger (48.9 percent) are under 14 years old (CIA, 2005). It is the country with the highest fertility rate, namely 7.1 (2003) and the lowest adult literacy (17 percent) and the lowest female literacy rate (9 percent). Between 2000/01 and 2002/03, the gross enrolment ratio increased from 37 percent to 45 percent (World Bank 2006).
Unfavourable climatic conditions, lack of resources and weak economic growth, weak food production, a high level of malnutrition, insufficient basic structures, weak industrial performance, demographic growth and performance of social sectors makes Niger one of the Highest Poor Indebted Countries (HIPC) and today half of the government’s budget comes from external aid (UN and Government of Niger 2005).

With development assistance, the government of Niger adopted a Poverty Reduction Strategy (SRP) in 2002, a Rural Development Strategy in 2003 and recently, a Medium Term Action Plan 2006-2011, with the goal of reducing the number of poor people by half by 2015 and stressing the improvement of food security and sustainable management of natural resources (UNDP 2006).

Nevertheless, from 2003-2006, Niger made significant progress in strengthening its economy with an average growth rate of 4.2 percent. Economic performance rebounded in 2005 and 2006 after slowing down in 2004, due to the negative impact of drought, a locust plague and, to a lesser extent, higher energy prices. Real GDP growth rate (adjusted for inflation) is estimated to have been negative at about -0.6 percent, with agriculture production contracting by about 13 percent.

In 1999, following almost a decade of political instability, Niger successfully transitioned to a democratically elected government. It reformed the constitution and held presidential and parliamentary elections, now being run by a two-party coalition, consisting of the MNSD (Mouvement Nigérien pour une Société de Développement) and CDS (Convention Démocratique Sociale) and headed by President Mamadou Tandja (MNSD). General elections were held in November and December 2004, resulting in the reelection of President Tandja.

Currently, the political situation is officially considered to be stable and the government has taken steps to strengthen relations with civil society. When civil society groups launched protests and strikes in the main cities of Niger in order to achieve a reduction in prices of oil, telecommunications, electricity and water services and public general services outlays, the government set up a steering committee to discuss and resolve the issues with civil society leaders. Earlier in 2006, the president also initiated regular consultations with opposition leaders in order to diffuse tensions and promote stability (World Bank 2006).

The government of Niger also started to gradually promote the private sector in economic development. In March 2004, it prepared a National Strategy and Transportation Sectoral Program and in May 2004 a National Urban Development Strategy was prepared to reduce regional disparities and enhance the urban structure (IMF 2005).

Niger, standing at the crossroads between Arabo-Berber Africa and Sudano-Sahelian Africa is inhabited by people of very different origins, who have lived
together for thousands of years. One major distinction may be drawn between the black population, which is mainly composed of settled farmers and the white population, which is principally nomadic.

The settled populations are divided into several groups: in the west the Songhai and Zarma, Hausa in the center and Kanuri in the east (American University 1997). Nomad populations live mainly in the northern part of the country.

In May 2007 a string of armed attacks in the north of Niger were provoked by a new Touareg-led rebel group that claimed responsibility for the violence. The attacks against the Nigerien army have been amongst the worse since the 1998’s peace deal (UN and Government of Niger 2005). However, these attacks occurred only in the Agadez region in the north and did not affect the whole country. Therefore, the Nigerien government considers the situation to be generally under control.

1.2. Brief overview of environmental problems

Desertification and land degradation are the main environmental problems in Niger. The following section will explore these two issues of concern.

Land Degradation. Every year thousands of acres of arable land are lost due to erosion:

- In the regions of Agadez, Diffa, Zinder, Tillabery, Tahoua and Maradi, wind erosion and movement of sand dunes is the most important environmental degradation, effecting both natural resources (water) and man-made infrastructure (roads);
- In the regions of Tahoua, Tillabery, Niamey, Dosso, Maradi and Zinder, hydrologic erosion due to violent rains creates ravines, invades water plains and creates soil problems.

The agricultural areas of Maradi and Zinder, which are mostly cereal-growing areas, are experiencing a drastic decrease in fertility due to impoverishment of soil and high demographic pressure (UN and Government of Niger, 2005).

1.2.1. General decrease in natural resources productivity

Due to land degradation, the “natural resources capital” is decreasing its productivity and accessibility becomes more and more difficult. Even under the exploitation of greater areas, the growth of cereals (2.5 percent per year) is largely below the growth of the population (3.1 percent). The strong human and animal pressure determines the intense exploitation of resources. The increase of agricultural exploitation leads to the degradation of the forest-pastoral area. This degradation of pastoral areas leads to the reduction and disappearance of important species (UN and Government of Niger 2005).
1.2.2. Sand intrusion

The sand threatens water courses (such as that of the Niger River), roads and other development infrastructures. In the northern-Sahelian part of the country, the sand invasion of lands and cereal cultivations compromises the growth of seeds and makes the production areas sterile (UN and Government of Niger 2005).

1.2.3. Reduction of forests and biodiversity

Forests and protected areas are subjected to threats not only due to recurrent droughts, but also due to agricultural use and abusive exploitation with the use of fire. This phenomenon is particularly widespread in the Tahoua, Maradi and Zinder regions. Not only are forests an important source of energy and biological diversity, the impact of the degradation of vegetation on the life of the communities reveals other very important aspects. Apparently 210 vegetation species contribute directly to human nutrition, especially during famine periods; 235 species are eaten by domestic animals; 270 are used in traditional cures; 127 species in handcraft work and habitat etc. (UN and Government of Niger 2005).

Some animals are at risk of extinction, others like the Oryx, are already extinct. The W Park, created after 1954, is confronted with phenomena of uncontrolled degradation and exploitation (poaching, illegal pasturage, forest damage etc.). The RNNAT, one of the largest reserves in the world (77,360 km$^2$) is listed by UNESCO since 1992 as endangered heritage. The other reserves (Gadabédji, Tadres etc.) and the adjacent zones to the protected areas have rarely benefited from the structured actions of conservation. These spaces are equally threatened by an irreversible degradation (UN and Government of Niger 2005).

Selected regions of environmental concern in Niger relate to Lake Chad, the Challawa Gorge Dam and Niger Delta Oil, all of which are described in more detail in the following sections.

1.2.4. Lake Chad

Lake Chad lies within the Northern Africa Sahel region and is shared by four countries: Cameroon, Chad, Niger and Nigeria. The region is dominated by a Sahelian climate with annual average temperatures of about 30°C and a short rainy season from July to September and high levels of evaporation. Annual precipitation ranges from 560 mm in the south, to 255 mm in the northern part of the lake. Climate variability is high. Droughts in the last three decades and patchy rain led to severe problems in water and food security in the Sahel region. Table 1 shows the high vulnerability to droughts in the riparian countries of Lake Chad. Even though Niger has experienced a higher number of epidemics,
droughts have affected the greatest number of people – half of them in Niger between 1980 and 1990.

Table 1: Disasters in the riparian countries of Lake Chad: Cameroon, Chad, Niger and Nigeria (1903 – 2006)

<table>
<thead>
<tr>
<th>Disaster Type</th>
<th>Number</th>
<th>Killed</th>
<th>Injured</th>
<th>Homeless</th>
<th>Affected</th>
<th>Damage (US$ 000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemic</td>
<td>100</td>
<td>136,835</td>
<td>0</td>
<td>0</td>
<td>493,516</td>
<td>0</td>
</tr>
<tr>
<td>Flood</td>
<td>54</td>
<td>1,092</td>
<td>719</td>
<td>878,798</td>
<td>2,248,706</td>
<td>99,122</td>
</tr>
<tr>
<td>Drought</td>
<td>19</td>
<td>85,000</td>
<td>0</td>
<td>0</td>
<td>11,313,400</td>
<td>155,603</td>
</tr>
<tr>
<td>Insect Infestation</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1,700</td>
</tr>
<tr>
<td>Windstorms</td>
<td>5</td>
<td>228</td>
<td>103</td>
<td>0</td>
<td>2,550</td>
<td>157</td>
</tr>
<tr>
<td>Slides</td>
<td>4</td>
<td>52</td>
<td>0</td>
<td>1,900</td>
<td>1,900</td>
<td>0</td>
</tr>
<tr>
<td>Volcano</td>
<td>3</td>
<td>1,783</td>
<td>437</td>
<td>510</td>
<td>13,447</td>
<td>0</td>
</tr>
</tbody>
</table>


Environmental problems in the countries of Cameroon, Chad, Niger and Nigeria with a focus on the region of Lake Chad include:

- deforestation
- desertification, soil degradation, soil erosion, loss of arable land
- hot, dry, dusty Harmattan winds
- periodic droughts
- desert locust plagues
- inadequate supplies of potable water
- waterborne diseases
- soil and water pollution due to improper waste disposal
- floods (CIA 2007)

Two environmental problems specific to the Lake Chad region is the shrinking water body and soil degradation.

1.2.5. The shrinking water body of Lake Chad

Due to the droughts and patchy rain, Lake Chad, which was one of the most productive regions of freshwater fish in Africa, has severely decreased its production. The annual fish catch in the early 1970s was up to 141 000 tons, but dropped by 50 per cent since then.
Due to the frequent and continuous droughts, the lake’s area decreased from approximately 25,000 km² in 1963 to about 1350 km² today (Figure 2). It hardly exists in Niger and is extremely shallow with maximum depths of just 7 m (even in the 1960s), highly depending on rainfall with seasonal and inter-annual fluctuations. According to Coe and Foley (2001), the lake decreased by 30 percent between 1966 and 1975, but irrigation accounted only for 5 percent of the loss. As water demand increased between 1983 and 1994, the anthropogenic contribution to the loss increased to 50 percent (Coe and Foley 2001).

Figure 2: A Chronicle of Change. Lake Chad from 1963 to 2001.


1.2.6. Soil Degradation

Soil degradation (soil erosion and loss of soil fertility) is caused by climate change and human impacts. The process of degradation is quite complex with several factors influencing each other. Those factors include:

- decrease in rainfall
- falling groundwater tables
- reduction of canopy cover
- erosion factors such as wind and floods
- inefficient irrigation practices
- misuse of chemical fertilizers (Obada et al. 2006)
Human induced soil degradation around Lake Chad is rated severe (Figure 3). The process has led to “virtually sterile soils”, disappearance of valuable plant species and reduction of rain-fed and irrigated crops (Obada et al. 2006). As agriculture is the main economic activity of 60 percent of the 20 million people in the basin, vulnerability to soil degradation is high.

**Figure 3: Soil Degradation in the riparian countries of Lake Chad**

![Soil Degradation Map]

Source: FAO 2005

Important actions have been taken in Niger at the political level particularly expressed in the Strategic Action Plan for Poverty Reduction and more specifically in the Rural Development Strategic Plan, where the preservation and the sustainable management of natural resources is one of the fundamental points of concern. In addition, the government of Niger has reacted to the threat of land degradation and drought by implementing the medium term action plan 2006-2011. Assistance is provided by several donors like the French government, the Italian cooperation agency, the German cooperation agency, the United Nations Convention to Combat Desertification (UNCCD), African Development Bank and the UNDP (UN and Government of Niger 2005)

Amongst the strategies and the action plans the following have been highlighted:
The national strategy and action plan for biological diversity
National action plan against desertification and the management of natural resources
National strategy and action plan on climate change
Strategy and action plan on production and commercialization of Arabic gum
Strategy and action plan on fisheries and aquaculture
Program on the implementation of the pasturage sector

At the operational level, the strategies and action plans stress the importance of reinforcing the capacities for governing natural resources and natural areas, considering the processes of democratization and decentralization. In this way the government of Niger is arguably attempting to have a global approach in the fight against poverty considering the social, economic and environmental dimensions of development. The government of Niger has particularly indicated its desire to implement the interventions coherently and with the active participation of the population, in particular, the young and the women (UN and Government of Niger, 2005).

The beneficiaries of the projects of the medium term action plan are principally the rural populations that are the most vulnerable to food crises. The goals of the enforcement of the local communities are:

- Implementation on knowledge in natural resources and the capacity building of a long term plan for their management,
- Rehabilitation and/or protection of 15 percent of agricultural land;
- 200,000 acres of forests managed directly by the local communities
- Energy economization of 7,000 000 tons of wood with the construction of homes without wood and the implementation of the use of alternative technologies
- Rational management of the biodiversity in 3 humid prioritized areas and 5 areas for the fauna conservation
- The annual production of 10 000 tons of Arabic gum from 2006 onwards
- Directions for the sustainable management of forest and pastoral resources
- Significant reduction of industrial and urban pollution (UN and Government of Niger 2005)

In order to create the conditions for a sustainable management of natural resources at the local level it is essential to:

- promote an in depth knowledge of the natural resources and of their dynamics at the local level
- Pursue and enforce the efforts of devolution of power to the communities for a bottom-up development
- Pursue and intensify the information and awareness-raising actions of the populations on the issues of desertification and drought.

These points have to be implemented through the radio and the television service to educate on environmental issues and through child education in schools (UN and Government of Niger 2005).

In 2005, a locust plague and a severe drought hit Niger. The most food insecure areas were the agro-pastoral regions of Maradi and Tillaberi and the pastoral regions of Tahoua and Zinder. The deterioration of livestock conditions, in conjunction with the depletion of natural resources, resulted in increased tensions between pastoralists and farmers (UN and Government of Niger, 2005).

1.3. Brief overview of migration processes

Niger has been concerned with different types of migration movements: economic migration, seasonal migration, transit migration and return migration.

Migration is a widespread phenomenon in Niger. Rural poverty and food insecurity have accelerated population migration, from the rural areas to the cities in the southern part of the country (UNDP 2006).

In the mid-1970s severe droughts in Mali and Niger forced thousands of young Touareg men to emigrate to neighbouring Libya and Algeria. There, many received military training (Uppsala University 2006). In the 1980s many returned with their governments promising them resettlement assistance, but in Niger the assistance never materialised. This and other grievances led to increased tensions between returning Touaregs and the Nigerian government (Uppsala University, 2006).

Temporary migration of part or the whole household is a coping strategy during periods of drought and seasonal migration. 80 percent of working age males migrate seasonally from interior areas of South Sahara to coastal cities (Rural Migration News Agency 2007). Remittances are a major source of income for many poor Nigerian farmers. They are used for taxes and marriage dowries and are invested in cattle and luxury goods (World Bank 1996).

Niger and especially the region of Agadez, is the Central Sahara key route for migrants coming from Ghana, Cameroon, Chad, Nigeria, Mali and directed towards Libya and Tunisia with destination Canary Islands, Spain and Italy.

According to the World Bank’s 2005 data on remittances, the stock of emigrants was of 437,844 or 3.1 percent of the total population. The top 10 destination countries are the Ivory Coast, Burkina Faso, Nigeria, Chad, Benin, Togo, France, Italy, Germany and United States.
In 2005 the stock of immigrants was of 123,687 or 0.9 percent of the population. The percentage of female immigrants was of 52 percent and the percentage of immigrants as refugees was 0.3 percent. The top 10 source countries were: Nigeria, Mali, Burkina Faso, Benin, Cote d’Ivoire, Ghana, Togo, Senegal, Chad and Sudan.

Inward remittance flows were US$ 14 million in the year 2000. In the year 2004, the inward remittance flow was US$ 60 million. Outward remittance flows were US$ 12 million in the year 2000, while in the year 2004, they amounted to US$ 25 million (World Bank 2005).

Figure 4 shows the refugees and asylum seekers in Niger. It is very difficult to distinguish between refugees and persons forcibly displaced for environmental reasons. In African countries, refugees frequently become environmentally displaced as a result of their unsustainable agricultural practices in the resettlement areas for the internally displaced people, which forces them to relocate (Schwartz and Notini 1995).

Figure 4: Refugees and asylum seekers in Niger, 2000-2006

2. METHODS

2.1. Justification of the selection

Due to time (3 weeks), budgetary and security constraints, the researcher was not able to visit all the regions and resided only in Niamey and commuted to Tilabéri. However, he was able to run interviews with migrants from all the regions who left the latter for Niamey and Tilabéri. Moreover, the International Organization for Migration (IOM) office in Niamey facilitated meetings with returned migrants from Libya in the frame of a re-integration program that the office organizes, helping this category of Nigeriens to start new lives in Niger after having been deported from Libya or after returning back voluntarily as will be discussed in detail in the following sections.

2.2. Discussion of methods used in the study
The field work was based on conducting interviews with experts from local authorities, universities, Non Governmental Organizations and international organizations.

Moreover, a total of 60 migrant and 20 non-migrant questionnaires were filled out. The second category consisted of people who suffer from environmental problems but have nonetheless decided to remain in their original places of residence.

All the migrant and non-migrant questionnaires were filled out by the researcher with a simultaneous translation of the local partner (IOM Niamey) from Hausa, Djerma and French into English. There were also phone calls with people who live close to Lake Chad, since the researcher was not able to visit this region in the East of the country (Diffa). Moreover, some questionnaires were filled out in the IOM office with returned migrants from Libya (16) or some permanent migrants to Nigeria and Chad (4) who were paying short visits to Niamey (Niger) at the time the field work was carried out.

The research relied additionally on 9 police questionnaires that were filled out by some migrants (especially in the region Agadez in the North) who entirely left the country and therefore had to submit these questionnaires to the authorities along the borders.

The places that were visited within the region Niamey were selected randomly and in most of the cases, the people interviewed were randomly selected as well. Five of the questionnaires were filled out with the support of the head of the Filingue department in Niamey who facilitated the communications, based on his affiliation with the IOM office.

After 41 migrant and 20 non-migrants questionnaires were filled out, the researcher left the country and the local partner undertook 19 additional migrant interviews, after having received sufficient training during the previous interviews conducted by the researcher.

The researcher found that some questions were not relevant to the country, such as questions about the religions, since most of the population is Muslim. Moreover, when asking whether the interviewee was married, the latter gave the number of his wives (up to four), which was not accounted for in the questionnaire. Some sensitive questions, such as having credit were not well received by the interviewees. The distinction between cattle herding and farming was sometimes hard to make, since many of the interviewees and the Nigeriens in general do both of them, depending on the seasons and even during the same seasons. Most of the farmers consider their cattle to be an asset or wealth that should be kept in case of difficult financial circumstances in the future.
The order of some questions had to be changed. For example, people who returned back to Libya within the framework of a reintegration program were not asked the question whether they think that they would migrate again in the future at the beginning of the meeting. This question, instead, was postponed. The reason for this was that they could have been hesitant about answering this question or even falsify their answers, in fear of losing the money from IOM for the purpose of reintegration in Niger. After they became familiar with the nature of the study by answering a considerable number of questionnaires, it was then possible to ask them whether they could imagine themselves leaving the country in the future. At this later stage in the interview, due to the trust that was potentially established, it was more likely that they would provide a more truthful response.

3. FIELDWORK AND ANALYSIS

3.1. Outcomes of expert interviews

The 25 expert interviews\(^2\) were mainly run with officials from local authorities,\(^3\) University professors (geography and migration issues), representatives of Non Governmental Organizations (World Wide Fund for Nature and National Association for Protecting Human Rights) and staff members of international organizations (Food and Agriculture Organization, United Nations Office for Project Services – Global Environmental Facility, United Nations Development Program, World Health Organization, International Labor Organization and the German Development Service).

In the following section, the main outcomes of the expert interviews are summarized, starting with a brief historical background that shows how different factors, including environmental degradation, contributed to the migration patterns in Niger. The key questions asked are: Who are the people who migrate/d? Why do/did they migrate? More specifically, what are the environmental problems that influenced their decision to migrate? From where to where do/did they migrate? What are the circumstances under which they migrate/d? What are the coping mechanisms against environmental problems and how does the state contribute to these mechanisms?

3.2. A historical overview of environmental migration in Niger

In the past, before the French invasion in the year 1900, the economy of Niger was based on slavery that provided for food security. The slaves were farmers,

\(^2\) See Annex 1
cattle herders and domestic workers. Sixty percent of today’s populations are former slaves. There were special groups of them in the granaries.

In the year 1900, the French colonization started in Niger. It started from Senegal in the West, moving to Chad in the East and then to Niger. Geographically, the French started in the year 1900 in the West, in Say and then they moved to Filingue. They stayed in this region for the first decade. At that time, the city Zinder was the capital. Niamey became the capital in the 1920s.

The French were in need of supplies for their soldiers and missions towards Chad. They insisted that the people of the country respond to requisitions by the colonial authorities, especially for food and supplies, including construction materials. This led to environmental destruction, since the trees were cut and chopped in order to construct the colonial buildings. The environmental problems started in the Ouallem area, which became the most degraded of Niger because of the 1900 colonization. It used to be covered by palm trees (Dom palms) that were cut down to serve for the construction of these buildings. This had the effect of impoverishing the people by robbing them of their lands natural resources. As a result, the traditional mechanisms that had been developed for centuries in Niger were destroyed. These mechanisms were based on the reserves of granaries, a very important source for the periods of shortages, but all was given away. Moreover, there were requirements for forced labor, which had to be provided/made available for the colonialist power for building colonial roads, posts and telephone lines. This took labor away from the field, thus the latter was neglected and no longer seeded. And since no one was able to bring the crops to the storage, the former became spoiled. The slaves who used to work in the granaries were no longer available, working instead for the colonies. In this way, the new system destroyed the food security and led to a social and cultural damage.

In the year 1906, the complete monetarization of the economy took place and the French insisted that the taxes were paid in coins (French francs). The supply of these coins was controlled only by the French. Hence, people had to pay taxes after cropping. They were forced to obtain cash in coins (the only means of exchange and paying taxes), so they had to sell off crops in order to earn enough coins to be able to pay these taxes. Previously, it was common to rely on the use values (barter deals) rather than exchange values. As a result of this imposed alteration in commerce the traditional economy and social structure was lost.

The supply of coins was very low. Everyone was competing to obtain coins, so the native community lost everything and few reserves were left to cover the drought periods. This led to the great famine of the year 1911 following a drought. The famine would not have taken place if the people had maintained the old mechanism. This marked the beginning of the famine cycle. The economy was already destroyed with no reserves. As a consequence and still today, each
time a drought occurs, the Nigeriens fall further and further into accumulative debt.

Due to these problems, there were large scales of migrations. There are no records however on how many left, how many stayed and how many died on their way to other countries or on their way back to Niger. Migration was initiated because of the French colony. Once crops were sold and little remained, people - especially in West - started migrating to the coasts to find cash wages for work performed in the coastal economies (to be able to pay their and their families taxes to the colony). Exclusively, male labourers went to the Gold Coast, today’s Ghana, for the purposes of mining. It was a dangerous – but also and therefore – highly paid.

Those who did not want to risk their lives in such activities went to the coast close to the ports, casual labor (dockers who offloaded cargo ships), also in Ghana. Some others looked for diamonds. The search for employment therefore created a seasonal migration to the coast, especially to Ghana.

After independence in Niger and Ghana in the years 1960 and 1957, respectively, political problems developed, which led to economic problems in Ghana and people from the Western parts of Niger switched to Ivory Coast (cocoa production), since it was an economy that would provide them with the income that they need (economic safety). People from the Eastern parts went then to Nigeria (petroleum).

Since the mid-1990s, Nigeriens no longer go to the Ivory Coast because of the civil war. The new president no longer wanted any labor migrants to share with the Ivorians to the extent that everyone coming from the North, such as Niger, was threatened to be killed. In the past, the Nigeriens were a great asset to the economy of the Ivory Coast providing much needed labour for cropping and producing cocoa.

Migration to Nigeria stopped as well, due to problems in the petroleum economy. Furthermore, there were political and religious problems between the North and the South.

Presently, most of the migrants go to Libya (particularly, since the mid 1990s). The Libyan president at first welcomed labour migrants from Niger, since, as a result of the international embargo against Libya in the 1990s, foreign labour was needed to help build the economy. When the embargo was lifted however, a foreign labor force was no longer as welcome.

3.3. Who are the people who migrate/d?

All males between the ages of 15 to 50 have most probably migrated / or are migrating. In some cases even older people migrate, but this is rather unusual.
Usually, men in Niger are encouraged to marry at early ages, because life expectancy is low (44 years), so they have to marry as soon as possible, to have children to provide security for their old age. Usually, women, elderly and children are left behind. It is common that young men leave only temporarily for periods at a time.

It is hard to link migration to the environment. From the questionnaires filled in the field and as will be shown later in this study, many of the interviewees name economic reasons for moving from one area to the other. However, when going into depth with the questionnaires, almost all the people who migrated were affected in some way by environmental problems as root causes for their migration decisions.

3.4. Why do/did they migrate, more specifically, what are the environmental problems that influenced their decision to migrate?

3.4.1. Deforestation and droughts: lack of vegetation cover through human activities and droughts, which leads to water and wind erosion.

a. Human causes of deforestation: Directly related to cultivation of land. People destroy the natural vegetation to plant food crops. The problem has become more severe due of the growing population.

It takes twenty years for the nature to restore itself. In the past, farmers left the land and came back after 20 years without having to use fertilizers. Presently, the rapid population growth does not allow natural recovery. If people stay on the same land.

Using fertilizers is necessary, but most farmers cannot afford it. The most appropriate fertilizer for this dry kind of land is animal manure, which requires ownership of animals/s. It is difficult to feed the animals under the circumstances of droughts and water shortage however.

Poverty is thus a vicious circle. Only rich people buy animals; it is an indicator for wealth, even within rural areas. Keeping wealth within the families is something social and cultural; no one marries from outside the family. Therefore, the rich get richer and the poor get poorer.

b. Natural cause of deforestation: Droughts- In general, there is a drying trend. Average rainfall levels have been decreasing (perhaps as a result of climate change). One of the earliest droughts was in 1930. It was called Gendaberi (Big stomach). It was a general (all over the country) drought that was followed by a period of famine. There are also localized droughts that affect particular areas, where the rainfall is patchy and does not affect all the regions. These localized droughts are now occurring with increasing frequency.
The strongest following droughts that attacked the entire country were in the years 1973 and 1984. Today, people are still suffering from the consequences.

The gaps between the occurrence of droughts have become shorter and at the same time there is a steady degradation of the land and the rise in population and their needs. Since the gaps between the droughts are very short, this short time does not allow the land to renew itself automatically (like it used to when the gaps were longer). An important example is that many species are destroyed for good due to periodic droughts that last for one or more years. When farmers harvest in October, the crops do not last until the next harvest season (as in the past), since the production has decreased with the rainfall shortage and the poorer soil quality (The land no longer produces enough for a complete year). When a drought occurs, it leads to a significant degradation of environment. Another important factor that intervenes is the rapid population growth; the Nigeriens were 3.5 million in the year 1960; today they are over 12 million.

3.4.2. Sand dunes

There are complete villages that have disappeared due to the sand dunes and whose inhabitants had to move to other villages.

3.4.3. Niger River problems

There are different problems associated with the Niger River:

a. Water pollution: The wastes of the factories flow into the river and harm the fish reproduction, threatening hereby the livelihoods of the fishermen who have to leave for other countries.

b. Jacinte D’eau plant (an alien species) that is spread over large areas of the water surface and harms the fish

c. Sand siltation in the river: This is another reason why the fishermen suffer; the river gets shallower and the fish can no longer hide and reproduce.

d. Drying out of the river: During the droughts in the early 1980s, the river completely dried out. This had a negative impact on the farmers (water used to drink but not irrigation) and also the herders (for animals to drink). Only the traditional African rice is irrigated through flooding from the river through centuries (but not Asian rice, which requires much input). Furthermore, the fishermen went south to Benin and Nigeria (rest of river did not dry out there, so they fished there). There are no detailed figures about that. It is just rumors.

The river is partly fed from the rain. It is a unique river, since it flows from the North and from the South. It is even thought that it was two separate rivers that have joined (one in the Guinea mountains) source that becomes a stream and then river then through Mali and then Debo lake. The whole area of Masina in
Mali is a river delta. The river in the Niger area appears to have flowed down from the volcanic mountains in the north.

The Niger River (the part in Niamey) carries much pollution, so the fish have been affected. When the beer factory was installed, all the wastes were dumped in the river and the fish died. There are almost no fish left in Niamey. Any fish from Niamey are from the upper and lower parts of the river (but not the Niamey part), especially the part close to Park W that is protected.

3.4.4. Drying out of Lake Chad

As compared to a previous section that showed some literature about Lake Chad, this section aims at showing the outcomes of the expert interviews made in the field.

The Komadougou river flows into the Lake Chad. The lake has decreased in size as a result of drought, irrigation, and cultivation. As noted, there has been general drying trends in the Sahel. Furthermore, people were cultivating ‘inside’ the lake, i.e. in its shallow parts. As well, these rivers are used for irrigated agriculture (Komodougou River). The water is pulled out of the river and the excessive use of the river water. What remained was the deepest parts of the Lake (no longer in Niger). On the Niger side, there were a number of migrants who left for Libya.

Moreover, some from the Toubou ethnic group left the Difa region due to the problem of Lake Chad. The Canouri ethnic group also left because there were no revenues there anymore. The same applies to the Bhodouma ethnic group who rely very much on a cow species called ‘Vache Kouri,’ which almost died out. This ethnic group is losing its identity and getting scattered in other regions and countries, such as Nigeria.

3.5. From where to where do/did the Nigeriens migrate?

At the beginning of the 20th century, the new class of migration began in the Western parts of Niger. As other lands became degraded in the East however, particularly with the rise of the population and the degradation of the environment because of peanut cultivation (cash crop), people from the East started migrating as well. People had to pay taxes to the colonial authorities by overplanting the lands with peanut. They no longer had food crops but cash crops. They called these fields tax fields or Gona Limpo (originally L’impôt). Land was destroyed for that reason. Then the migration began gradually in the Eastern parts, since the lands became destroyed (1960s). Currently, it is a general phenomenon with no specific places, since deforestation and droughts are spread all over the country.

It is no longer possible to move from the North to the South on a large scale. This pattern was widespread in the past. For example, there are cases where people
in the North of Niamey went to the South of Niamey to follow the rainfalls (in the 1980s with the drought). Today however, people cannot move to the South, since there is no empty land anymore. Most of it is occupied by people who use it for agriculture. The people who have farmed there would not easily leave their lands for others, since they cannot afford that. Most of the fields do not produce enough for their own consumption and needs, so they cannot also produce for additional new people. Only those who cannot afford planting their own land might lend/rent their field to someone else.

Since farmers of the South need more land (due to soil degradation and consequent declining yields), they go into pastoral areas and begin to cultivate (marginal lands with lower productivity), especially when the herders are absent, wandering with their animals somewhere else to look for food. When the latter come back, there is conflict. The farmers claim that the land was empty and take their plants as a proof of ownership.

People increasingly move wherever they can. The movements (gradual encroachments) are from high to low population density (pastoral) areas. They were originally not planned to the North, but these are the low density (pastoral) areas. Hence, people just follow their fields. In addition, there is a different movement from South Eastern Niger (high population) to Northern and West (which are pastoral lands). These lands are under serious pressure from the South and East.

The herders and farmers used to rotate in using the land, but currently, the farmers can no longer leave, since they have no other land. There used to be even herd contracts where herders were coming to the South to graze and then going back. This contract system was in place until the early 1970s. However, when the great drought (1973) took place, it killed a lot of animals and made the fertile land scarce. Therefore, this system was no longer applied.

In Niger there is no private property instituted through contracts. The ownership occurs through occupation (a natural pattern that lasted over generations). Accordingly, there are a lot of disputes. Some would lend the field where the borrower would keep farming. If the owner dies, the descendants of the borrower might have problems with the descendants of the owner. There is even bloodshed over the land.

Concerning the case of Libya, most of the migrants plan to go back to Niger after achieving their purposes (finding a job and improving their earning level). The shortest time spent in Libya for interviewees of this study was six months and the longest, eight years.

Nigeriens rarely travel to Europe through Libya, since the latter is their destination. This is because they are still attached to their families and have networks in Libya which help with the relocation. They would always return if they
could. An important evidence for that is that they rarely leave for the Maghreb countries (Algeria, Morocco and Tunisia), although the latter are francophone – as Niger is – in comparison with Libya and logistically it is easier to move from Morocco (though Gibraltar) to Europe. Nevertheless, they prefer to ‘keep an eye’ on their country.

In this respect, it is important to make a distinction between the ethnic groups and their mind sets. For example, the Tuaregs who live in the arid North (Agadez region) and who not only herd the cattle but also work in activities of mineral extraction, are better off compared to the people in the semi-arid South who mainly rely on farming (which means that they depend a lot on the environment). People in the North travel to Europe as a matter of prestige. An interviewee explains that “An average Tuareg bride would prefer to get married to a man who used to live in or at least visited Europe, since this is an indicator for richness and better education.” Even the cattle herders are used to the dry climate and they are more mobile, since part of their lifestyle is to wander and seek food for their animals. However, when people in the South migrate, they do it as a matter of survival, as a consequence of the worsening conditions of the land they plant on. Therefore, rather than traveling to Europe, they travel to other African countries (if they leave their own country in first place) where there are similar agricultural activities to theirs. These countries are mainly the Benin Republic, Cameroon, Chad, Ghana, Ivory Cost, Mali, Nigeria and Togo.

3.6. What are the circumstances under which they migrate/d?

Smuggling Nigerien migrants into Libya is a big business. Most of the smugglers in Agadez are Libyan. The price the migrant has to pay includes the entrance fee (briberies across the borders). Most Nigerien migrants are not legal. They are forced to do it illegally if they do not have enough finance to get the passport or visa. Even if they would have the latter, they would have to pay money to cross the borders. Every single step requires money, which they cannot afford/ do not want to do, especially since there are long queues to get a visa in the Libyan embassy in Niamey, in addition to the long journey to reach the embassy from different regions of Niger.

After migrants from Niger cross the borders and enter Libya, they have to walk for long distances. If the border guards catch them, they might bribe them, depending on the case. Other guards would arrest them. In some cases they can be attacked by Libyan bandits who take everything from them, including water, food, money…etc. They are then forced to walk for hundreds of kilometers without these supplies, which means that many of them starve/die on both sides (Libya and Niger – the latter if they decide to go back).

There are two routes to Libya; the Eastern route from Agadez to Dirkou (North East) and from there to the Libyan border and the Western route through Assamaka (Western route with the border of Algeria) then they go to the Libyan
border and stay there. Although in many cases it is illegal migration, they are not arrested, since the borders between the three countries (Niger, Libya and Algeria) are too long and there is therefore not sufficient control.

The migrants do not usually know much about the geography. They take the transportation means that they find and they do not choose whether they take the route through the West or East. Some of them do not even know how they reached Libya. Some of the migrants do not even know that they are illegal. When they arrive there, they discover the scarcity of work opportunities, restrictions on hiring foreign labor. Then however, it is difficult for them to return back home. It takes 75000 to 100000 Francs just to get back to the Southern part of Libya (this depends also on the dealers who push them in crowded lorries or busses where they mostly have to stay during the whole journey).

3.7. What are the coping mechanisms against environmental problems and how does the state contribute to these mechanisms?

There are people who do not need to migrate, but these are mostly located in the very far south of Tilabéry (and Niger), particularly, in the South of Niamey, where the environment is richer and the areas are environmentally protected. Also in Gaya (Dosso region), on the border with Benin, there are stronger and more frequent rainfalls, where there is a protected national park called Park W (it looks like this letter on the map). In these areas, fertility of land is easier to maintain and there are more trees and higher rainfalls….etc. There is also more rainfall because of less deforestation.

In the regions that are deserted by young males due to the environmental problems, especially in the dry seasons, only women and children stay. This has a negative impact on environmental restoration or any other kind of environmental work. Women undertake this work indeed, but they need the help of their husbands and young sons. Sometimes teams of women are doing all the work to restore environment, which is not sufficient, since they have other priorities, such as taking care of the children. Furthermore, if the husbands do not send (enough) money, the women have to work to get food instead. And in the villages and rural areas, there are only very few opportunities to work, especially for women.

The following are actions taken by the women in order to survive the deteriorating environment:

1. They organize saving circles (cooperatives); the system of Gramin banks: mobilizing savings. They arrange a group of women. Every woman pays the same amount every month (week) and every round one of them collects the whole money for herself (mobilization). This helps them purchase goods and resell or even produce and sell them in the market.
2. Women might also work as hired hands in other people’s fields, which is very unusual (the very final resort) and a real sign of extreme desperation. When doing that, in most cases, they do not even get money paid, but instead grain.

3. When there is no grain they rely on their knowledge about wild plants which are edible (leaves, fruits and wild grass). They have in their minds detailed lists about the lands and trees. For example, there is famine food that is originally poisonous, but they have the knowledge how to handle it when they are desperate, so that they cook it in certain ways that make these plants edible.

Generally, when people migrate, they do not have anything and therefore, they do not have any other choice than to move. Therefore, it is forced migration for environmental reasons.

The state started a – so-called - President’s program that helps the people stay and restore the environment instead of leaving it behind. It even offers money for these people as an incentive for them not to leave.

The following are examples for restoring the environment:

1. Digging half moon depressions, a technique for water filtration that enables the rain water to stay in the ground and not get spread with the important substances of the soil. This technique is used usually on sloping land, since it will stop the water from washing away through the land.

2. Building wind breaks, a technique that mainly takes place in the Southern parts of Niger, where they plant trees and care for them, so that the water puddles do not move or wash away. This method is not easy to do by women in degraded areas all alone.

3. Dune Fixing in the case of sand dunes that cover the fertile lands. This occurs through wire fencing. There are also other types of fencing; they make these fences and put them in the dunes, in order to stop the soil from blowing away and the dunes from extending over the fertile land.

4. Planting trees that prevent the sand erosion (replanting land).

5. In areas where natural water flows, they gather stones, arrange them in a chicken wire in a shape of a dyke so that the water does not get lost.

6. For the last decade the government used to hire foreign services to dig out the sand from the river so that the river can get deeper. However, the government is no longer doing this, so the river is getting shallower and its existence is threatened.
3.8. Coping capacities in the destination areas:

The immigrants who settle in a new place/region within Niger are always treated as ‘foreign’ farmers, although they are Nigeriens and this lasts even after years of resettlement. An example for that was a specific area where the traditional habitants were obliged to provide land to people who were moved from the North to the South with intervention of the military government in the year 1986 (Park W). After more than 20 years, these ‘new’ inhabitants are still considered foreigners by the original people.

3.9. Outcomes of questionnaires

Beside the expert interviews, the field trip to Niger targeted migrants who left their home for the two regions of research (Niamey and Tilabéri) within Niger, in an attempt to find out whether environmental problems influenced their migration decision. In order to know about the experience of people who completely left the country, the researcher heard their stories from their relatives and friends who stayed.

Answering the question whether at any point of time environmental problems affected one’s decision to move, 90 percent of the interviewed migrants had a positive answer.

Around 70 percent of the migrants expect environmental problems in the future to make them and their families migrate to different places, more than half of which are planning indeed to leave due to environmental problems. Interviewees who are not willing to leave as well as people who did not leave in first place are either attached to their regions or adapted to the environmental problems they are facing.

The migration decision of all the interviewees’ had to do with environment and all of them had stories. The fishermen mainly complain about the siltation problems, where the sand erodes into the Niger River and the latter becomes shallower. Hence, this hinders or reduces the fish reproduction, which has a negative impact on their livelihoods. They also complain about the wastes that pollute the river. Another problem is the Jacint D’eau (water hyacinth) plant that covers broad areas of the surface and hinders the sun from reaching the water, leading hereby again to less fish reproduction and even the death of the fish. A fisherman in the village Sirba, Téra (Tilabéri) recounts:

I have been suffering from the rain water shortage which made the river very shallow and decreased my fish production, which had negative implications on my income. I might leave for another country, if the situation does not improve, like some of my friends

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4 The field trip covered only these two regions, due to financial, time and security constraints.
and relatives did; they left for Nigeria and Burkina Faso and settled there.

There were other fishermen who live in the village Goudel (Niamey) and who complained about the same problems. For example, a fisher there said:

Some of my friends have completely left the country and some others leave seasonally for Mali and the Benin Republic, where they can obtain better fish production

The same applies to the some fishermen interviewed in the villages Gamkale Sorkaydo and Kombo (Niamey).

The majority of the migrants who left Libya and returned back were suffering from droughts and their negative impact on their crops, cattle and hence income. They left there from different villages and regions in Niamey. The reasons why they returned back differ from one case to the other. For most of them, life in Libya did not meet their expectations. Some were deported from there and the rest collected the money they need and were willing to start new projects in Niger. A returned migrant from the village Talcho, Filingue (Tilabéri) mentioned in this interview:

I lost hope in producing crops, since the soil got too poor due to the droughts. I used to be a farmer in my home town. Therefore, I first went to Lomé (Congo) and then Libya. Now I have decided to return back to Niger where I will start a new business with the money I managed to collect in Libya.

Another interviewed returned migrant from the village Badeguichiri in the region Tahoua told his story as follows:

My family and I were farmers. Then the famine of 2005 took place. I used to have 5 cars for transportation and I made my living from this. Due to the famine I had to sell one car after the other until only one was left. I gave it to my son to work on it and left for Libya to earn money..

When the researcher visited the Filingue Department within the Tilabéri region, there was a village called Caré where all the inhabitants are migrants of another village called Farka, in the Ouallem Department of the same region. The reason why they migrated is that in Farka, the soil has degraded to the extent that crop production was no longer possible. An interviewee said in this context:

We were farmers in Farka, but the production level worsened too much and the harvest got completely unreliable due to the rain fall shortage and soil degradation. We hence had no alternative
revenues. Therefore, we had to flee this village in the year 1987......There is no other reason why we left the original village; if this deterioration in the land quality had not happened, we would have stayed. Currently, in Caré we are suffering from similar problems and might therefore leave the village for another as well. We have never planned to leave, but we just ‘crept’ after our living.

In an interview with a lady who used to live in the Lake Chad Region (Difa) and is currently in Niamey acquiring sowing skills she mentioned:

_The Lake completely dried out in the year 1989 and so many people left for Nigeria and Chad. I did not have a lot to do with the Lake and therefore stayed. I heard from others that the Lake appeared again in the year 2005 but I am not sure of this information. The Lake was very shallow anyway._

Another interviewee who was coincidently visiting Niger during the period of the field research said:

_I used to live in the Lake Chad region where my activities were not directly related to the Lake. I used to be a merchant. However, when the Lake dried out, people depending on it left for other countries and therefore, my business was negatively affected and I had to leave for Nigeria._

4. CONCLUSIONS AND FUTURE RESEARCH

From the analysis above, it is obvious that environmental degradation does have a considerable impact on migration patterns in Niger. Although seasonal migration has become part of the Nigerien culture, permanent migration (mainly within the country) is becoming a norm, as long as people are allowed to stay in the new regions. This indicates that the environment is a core reason why people leave, especially considering that almost everyone in the country relies on the environment on daily basis (most of the population are farmers, cattle herders and fishermen).

Migrating to Europe is not a typical ‘Nigerien dream’. Nigerien people prefer to stay on their land. If the latter’s environmental condition gets affected, they move to the next possible place to live. This ‘creeping’ process is very gradual and rarely ends up in Europe but rather in other African neighboring countries where the migrants find new means of survival. Since the poorest of the poor have the least chances to leave for Europe, this can be applied on the people most suffering from environmental problems. These people are in turn the most suffering from poverty and hence, leaving for Europe would be out of question for them. In addition, many other cultural aspects might hinder them from leaving the African continent, for example, people in the rural areas do not always master the
French language, but use certain dialects, such as Hausa and Folani that might be spoken in other African neighboring countries.

Since the field trip took only three weeks, it was hard to travel everywhere in Niger and to meet more categories of migrants. In the future, it would be advisable to run longer field trips with more observations. It would also be interesting to visit the countries where Lake Chad has not completely dried out (Chad and Cameroon) and run interviews with the Nigeriens who left their country following their livelihood and ask them about their experience with the Lake, how they coped with the situation and the circumstances that made them leave Niger and move to the other countries.

It would be recommendable that future research would cover all the regions in Niger. Moreover, it would be very useful for the researchers to travel to the neighboring countries (countries of destination) to trace the Nigeriens who left their country due to environmental problems, to follow up with them and to run a comparison between their situation before and after they migrated and to know from them more details about their former life and the factors that intervened when they made their decision to migrate.
5. References

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ANNEX 1

Expert Interviews

Dr Katiella Abdou Mai Moussa - National Coordinator - Global Environmental Facility (GEF) - Small Grants Programme (SGP) - United Nations Development Program (UNDP) - Niamey.

Mr. Laouali Arzika - Project Coordinator - Project for the Management of the Eco-Systems of the Trans-border Regions of Niger and Nigeria, Niamey.

Mr. Khalid Ikri - Director - National Association for Protecting Human Rights - Niamey.

Deborah Taylor - Professor of International Development and the Social History of Niger - University of Niamey, Reintegration Officer – International Organization for Migration (IOM) - Niamey.

Mr. Sylvain Garraud - Technical Assistant - Climate Change - German Development Service - Deutscher Entwicklungsdienst (DED) - Niamey.

Mr. Jacques Chabbert - Technical Assistant - DED - Niamey.

Mr. Dioffo Soleyman - Director - Focal point for Migration Issues - Police Academy - Ministry of Internal Affairs - Niamey.

Mr. Alassane Tounkoudou - Director of Migration Department - Ministry of Internal Affairs - Niamey.

Dr. Amadou H. Saley - United Nations Food and Agriculture Organization (FAO) - Niamey.

Dr. Bontianti Abdou - Head of Geography Department - Institute of Geography - Niamey University - Niamey.

Mr. Bala Ibrahim - Naional Administrator - International Labor Organization (ILO) - Niamey.


Dr. Ramadjita Tabo - Deputy Director and Regional Coordinator (West and Central Africa) Desert Margins Program (DMP) - International Crops Research Institute for Semi-Arid Tropics – (ICRISAT) – Niamey.
Dr. Saidou Koala - Coordinator - West and Central African Region and Global Desert Margins Program (DMP) - ICRISAT - Niamey.

Mr. Moussa Diagana - Administrator - Italian Fond - United Nations Office for Project Services (UNOPS) - Niamey.

Mr. Bila Maina - Deputy General Director of the Ministry of Environment for Water and Forests - Niamey.

Mr. Maman Laouali Abba - National Coordinator - Niger Basin Program for Controlling Siltation - Niamey.

Mr. Bassirou Dan-Magaria - Program Assistant - Global Environmental Facility (GEF) - Small Grants Program (SGP) - UNDP - Niamey.

Mr. Adamou Bouhari - Program Analyst - Global Environment Facility (GEF) Focal Point - UNDP - Niamey.

Mr. Abdoul Moumouni - Specialist on Migration Issues - University of Niamey - Niamey.

Mr. Moussa Bizo - Specialist in Health Economics - World Health Organization (WHO) - Niamey.

Mr. Aboubacar Awaiss - Program Coordinator - World Wide Fund (WWF) for Nature (NGO) – Niamey.

Dr. Wata Issoufou - Coordinator of the Network for Observation and Long Term Ecological Surveillance - Ministry of Environment – Niamey.

Dr Kamaye Maazou - National Coordinator of the Niger Republic’s Second Communication on Climate Changes Project – Niamey.

Mr. Mohamed Abdou Assaleh – Administrator – Filingué Department.