

→ List of acronyms

AU African Union

DHS Demographic and Health SurveysECA Economic Commission for Africa

FAO Food and Agriculture Organization of the United Nations

GBV Gender Based Violence
GDP Gross Domestic Product

GIEWS Global Information and Early Warning System (GIEWS)

ICPD International Conference on Population and Development

LCB Lake Chad Basin

UNFPA United Nations Population Fund

WCARO West and Central Africa Regional Office

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Demographic Dynamics and the Crisis of Countries around Lake Chad

UNFPA Regional Office for West and Central Africa

Summary

	List of tables and charts	5
	Foreword	6
1	Background and objectives	8
2	Methodological approach	10
	Data sources	10
	Methods	13
	Definitions	13
3	Insecurity in the LCB	14
4	Population profiles of LCB countries	16
	Population and demographic growth in the LCB	16
	Age structure and the demographic window of opportunity	18
5	Socio-demographic factors of insecurity in crisis countries and LCB countries	20
	Fertility level and insecurity	20
	Median age and insecurity	21
	Poverty level and insecurity	22
6	Implications of insecurity for development in the LCB	26
	Maternal deaths and skilled birth attendance	26
	Contraceptive use and adolescent fertility	27
	Education	30
	Economic dependency	31
7	UNFPA humanitarian response in the LCB	34
8	Conclusion and Recommendations	36
	Annexes	38
	Poforences	12

List of tables and charts

Tables

Table 1: Level of security in areas affected by Boko Haram	15
Table 2: LCB deficit / surplus (USD billions)	31
Table 3: Selected statistics on LCB countries	38
Table 4: Distribution of countries in the study sample	40
Table 5: Countries in protracted crisis in the FAO GIEWS	41
Charts	
Chart 1: Map of countries that have experienced a protracted crisis	11
Chart 2: Population doubling time by country based on population growth	17
Chart 3: Changes in population age structure in the LCB region	19
Chart 4: Variations in population dependency based on fertility per LCB country	19
Chart 5: Variations in youth dependency based on fertility per region category (what is YRDD?)	20
Chart 6: Variations in median age per region category (in years)	21
Chart 7: Variations in poverty level per region category (%)	23
Chart 8: Variations in poverty level per youth dependency ratio	25
Chart 9: Variations in maternal mortality based on birth attendance per region catego	ry 27
Chart 10: Variations in fertility based on contraceptive use	28
Chart 11: Variations in the gender parity index by region category	30
Chart 12: LCB regional average profile in 2014 (in USD billions) and LCB regional aggregate profile in 2014 (USD)	33

Foreword

Despite its high economic potential, evidenced by the existence and exploitation of abundant mineral resources in the region (oil in Cameroon, Nigeria and Chad, and uranium in Niger), the Lake Chad Basin (LCB) faces numerous environmental, socio-economic and security challenges. Further, beside the climatic changes (constant drought) aggravating the lake's gradually dwindling waters and the resulting repercussions on poverty, this part of Africa suffers violent extremism from the acts of terror perpetrated by Boko Haram, which since 2002, continues to spearhead regular attacks against border communities. The prevailing situation across Cameroon, Nigeria, Niger and Chad, has attracted the spread of international terrorism and the growing vulnerability of local communities in the region as a whole.

This part of West and Central Africa has consequently become the centre of international humanitarian and development concerns.

The region's high population growth, one of the highest worldwide, is among the many causes of the crises in the LCB, whose population is likely to double over the next twenty years. While significant progress is indeed being made in the other regions of Africa, the Lake Chad Basin countries are still lagging behind in their demographic transition. Unlike, the classic pattern of demographic transition, the decline in child mortality, seen in recent years in this region and in most countries worldwide, is yet to induce a significant drop in fertility. The average number of children per woman in most of the countries remains high at close to or above five children per woman, with no current signs of a significant decline.

The multifaceted crises observed in the Lake Chad Basin indicates a compelling need for the international community to respond to the numerous challenges, through concerted humanitarian and sustainable development initiatives, that have a particular focus on women and young people who are most at risk. Such a forward-looking perspective should include indepth and more strategic thinking on the social and economic support that would need to be implemented.

A lack of substantial investment in specific areas, particularly in education, health and stable job creation for the youth, is likely to aggravate the consequences for these countries, resulting in increased levels of adolescent pregnancies, increased unemployed or idle young people, growth of the informal low productivity sector, and a smaller proportion of wage earners. It is in such contexts that migration may seem as a viable alternative to unemployment for young people— a situation which could intensify in the decades ahead and exacerbate regional tensions, humanitarian disasters or the existing radicalization.

Recognizing this, the United Nations Population Fund (UNFPA), resolved to align the core pillars of its vision for development with the concept of "Leaving no one behind" and "Putting Young People First", which are central imperatives in the 2030 Agenda for sustainable development. This demonstrates the Fund's focus on women and young people, and its commitment to contribute to an effective response to the numerous problems facing the affected populations. The perspective of the Fund also aligns with that of the Secretary-General of the United Nations, Mr. Antonio Guterres, in his mention that "More than three out of five Africans are under 35 years of age. Making the most out of this tremendous asset means more investment in education, training, decent work and engaging young people in shaping their future... Investing in young people also means ensuring security for all of us".

I therefore urge all development partners including the donor community to join this effort and put in place a more effective strategy for the development of the Lake Chad Basin.



Mabingue NGOM UNFPA Regional Director for West and Central Africa

1

Background and Objectives

Since the September 1994 Cairo International Conference on Population and Development (ICPD), the interplay between population and development and its inclusion in development plans and programmes have been central to global concerns. The conference urged decision and policy makers around the world to facilitate access to reproductive health services for all those who cannot afford the full cost, and to promote the use of these reproductive health services by underprivileged groups. The governments, until then which had been hostile to the idea of having a family planning policy, were also challenged to create an enabling environment through development of policies for providing quality reproductive health services to manage the population growth.

More recently, the African Union (AU) and the Economic Commission for Africa (ECA) also recommended that African countries should include population issues in all development programmes and strengthen the linkages between the demographic dividend and economic growth, including the promotion of inclusive development.

At the same time, many African countries are experiencing all kinds of conflicts, including armed conflicts between civilian insurgents and governments and political instability.

While the immediate causes of most of these crises include youth unemployment, widespread social inequalities and poor governance, the demographic factor is increasingly being mentioned in a number of literature articles. In most cases, these conflicts occur in a social context with very slow demographic transition, which itself results from relatively high mortality

and fertility levels, and from population age structures that predominantly have a large proportion of young people below 30 years of age.

In many cases, poor living conditions and the lack of employment opportunities put the youth at all forms of risks including human trafficking and manipulation and false promises of extremists. Some of the youth choose to venture abroad in search of better economic conditions, often with unforeseeable consequences. But most have no choice and are forced to demonstrate their dissatisfaction on the street, thereby providing fertile ground for the networks of organized crime including international terrorists.

A growing number of scientific authors globally have therefore been increasing trying to link the occurrence of these conflicts to the slow progress countries have made in their demographic transition and the age structure of the population, yet few have used statistical tools to confirm such a hypothesis.

It is in this regard, that study being presented was conducted. The purpose of the study is to contribute to the analysis of the population and economic issues and challenges in the Lake Chad Basin (LCB) as they relate to the security crisis and the armed conflicts observed in this part of West and Central Africa (Cameroon, Niger, Nigeria, and Chad). It aims to provide evidence for development and implementation of projects to ensure stability and development in the region. The study uses a few examples from selected countries around the world, based on the assumption that the occurrence of armed conflicts or security crises is indeed tied to uncontrolled population dynamics that have not been addressed adequately in national development policies and programmes.



2

Methodological approach

This study is a statistical analysis of the relationship between population dynamics and the risk of armed conflict or security crisis.

It is based on the assumption that the occurrence of major conflicts in some countries around the world is linked to their demographic dynamics and population structure, which include high fertility and a youthful population. This hypothesis is then tested on the LCB, a region that has for over a decade been experiencing a security crisis and armed conflicts between the regular army and insurgents which spearhead acts of terror.

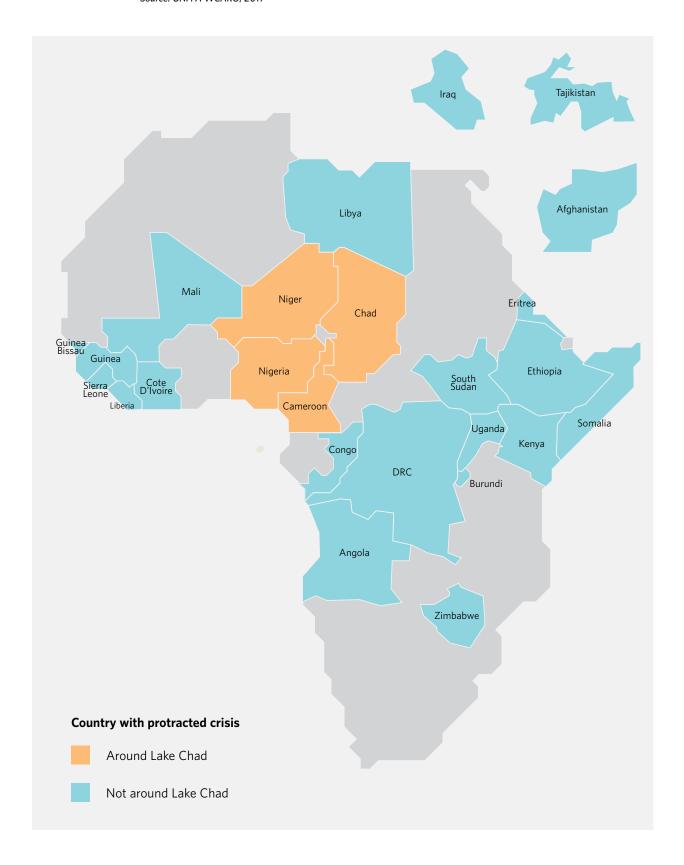
Data sources

To do the analysis, the study team selected a sample of 51 countries around the world, including the twenty-three (23) West and Central African countries covered by the United Nations Population Fund's West and Central Africa Regional Office (UNFPA, WCARO). The selection was based on the Food and Agriculture Organization (FAO) list of countries that have or have not experienced a protracted crisis¹ and the countries in conflict that are currently assisted by UNFPA.

The analysis was also based on population and socio-economic data for the countries covered in this study and published in the most recent UNFPA State of the World Population report.

Global Information and Early Warning System (GIEWS) developed by FAO

CHART 1 Map of countries that have experienced a protracted crisis Source: UNFPA WCARO, 2017





Methods

A comparative analysis was used to identify and consider the issue addressed in this study. Three groups of countries were selected, as follows:

- → The first group includes 28 countries² that have experienced a protracted political crisis leading to massive population movements in the last twenty (20) years.
- The second group includes 23 countries³ that have never experienced instability within the same period.
- → The third group includes the 4 countries in the LCB, namely Cameroon, Niger, Nigeria and Chad. It is worth noting that these 4 countries fall under the first group of countries having experienced a protracted political crisis that led to massive population movements in the last twenty (20) years.

From the population and socio-economic data collected for each country, the same statistics were estimated for each group using the appropriate weighting. The focus on understanding the specific case in the Lake Chad Basin led the study team to consider the third group, which comprises of the four countries in this region.

Definitions

There is no clear and simple definition of the term "country facing security problems". To help us understand the basic terms used in this study, the definitions used are as follows:

- Insecurity: Insecurity is defined as "an environment in which a significant proportion of the population is at serious risk of death, illness or hunger and may be disrupted for an extended period of time".
- Country in protracted crisis: According to FAO's GIEWS, a protracted crisis is defined as "an environment in which a significant proportion of the population is at serious risk of death and disease and may have their livelihoods disrupted over an extended period. Protracted crises have the following characteristics: natural disasters or repeated conflicts, long-term food crises, disruption of livelihoods and sufficient institutional capacity to respond to crises".
- Country without a protracted crisis: Unlike a country in protracted crisis, a country without a protracted crisis is one that is not in a situation where the population faces a serious risk of death and disease, and where livelihoods are not threatened.

- Angola, Afghanistan, Burundi, Cameroon, Congo, Côte d'Ivoire, Eritrea, Ethiopia, Guinea, Guinea-Bissau, Haiti, Iraq, Kenya, Liberia, Libya, Mali, Niger, Nigeria, Central African Republic, Democratic Republic of Congo, People's Republic of Korea, Sierra Leone, Somalia, South Sudan Tajikistan, Chad, Uganda, Zimbabwe.
- 3. Benin, Botswana, Burkina Faso, Cabo Verde, Chile, Costa Rica, Equatorial Guinea, Gabon, Gambia, Ghana, Japan, Mauritania, Mauritius, Norway, Panama, Qatar, Sao Tome and Principe, Senegal, Singapour, Thailand, Togo, Uruguay, Viet Nam.

Insecurity in the LCB

The consequences of insecurity are diverse and varied. Apart from the striking number of deaths that this situation may cause, the other consequences include human rights violations before, during and after the internal or external displacement of populations searching for peace and stability.

In such dark moments in a country's history, the number of women who suffer rape, or die during childbirth from a lack of assistance, or wish in vain to get access to contraception remains particularly high. Likewise, the children and youth who stay out of school when the schools close down, or are affected by hunger and disease due to the lack of access to proper care, is also a concern.

The hundreds of Nigerian high school students abducted in 2014 by the "Boko Haram" terrorist network is a perfect illustration of such disturbing acts from the insecurity in this region.



TABLE 1 Level of security in the areas affected by Boko Haram Source: UNDSS, 2017

Region	Country	Designated Area	Security Area	Security L	evel Area.	Score	Last Activation Date	Armed Conflict	Terrorism	Crime	Civil Unrest	Hazards
Africa	Cameroon	Cameroon	Cameroon	Far Northern Cameroon	4 Substantial	10.125	11 Aug 2015	4	5	5	1	3
Africa	Cameroon	Cameroon	Cameroon	Far Northern Nigeria Border Area	5 High	12.605	23 Apr 2015	6	5	6	1	3
Africa	Chad	Chad	Chad	Lake Area	4 Substantial	9.485	13 Aug 2015	4	5	4	2	3
Africa	Chad	Chad	Chad	N'Djamena Urban	4 Substantial	9.205	13 Jul 2015	2	5	5	5	4
Africa	Niger	Niger	Diffa	Diffa	5 High	11.7675	15 Jun 2015	5	6	5	3	3
Africa	Nigeria	Nigeria	North East Area	Adamawa State	4 Substantial	10.515	30 Jan 2015	4	5	5	4	4
Africa	Nigeria	Nigeria	North East Area	Borno State	5 High	11.805	16 Jun 2015	5	6	5	3	3
Africa	Nigeria	Nigeria	North East Area	Yobe	4 Substantial	10.205	16 Jun 2015	3	6	5	3	3

The profound change in the population age structure and high number of youth in this age pyramid usually end up in many cases with adverse effects on the ability of states to provide services tailored to demand. This may contribute significantly to the various situations of insecurity observed worldwide and in the LCB countries, with disastrous consequences on human life.



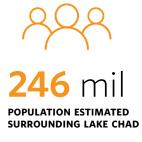
Population profiles of LCB countries

The four countries in this study surrounding Lake Chad, namely, Niger, Nigeria, Cameroon and Chad, have in recent years been trapped in conflict tied to acts of terror from "Boko Haram". The development indicators in this part of sub-Saharan Africa, which already were poor, continue to deteriorate further due to the region's instability.

Population and demographic growth in the LCB countries

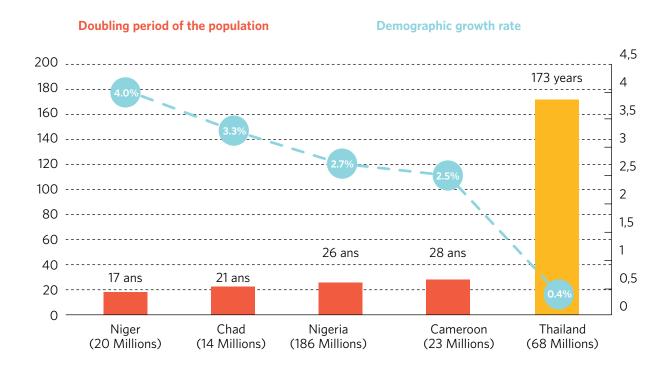
The four countries surrounding Lake Chad will have a population estimated at 246 million in 2017. Nigeria, with a population of 186 million, accounts for 75 perc cent of the population against 10 per cent, 8 per cent and 6 per cent respectively for Cameroon, Niger and Chad. The sub-region's population growth rate is one of the highest worldwide, averaging 2.8 per cent though there are significant disparities between the four countries. Cameroon (2.5 per cent per year) and Nigeria (2.7 per cent per year) record lower population growth rates than Chad and Niger, respectively at 3.3 per cent and 4 per cent in 2017.

In some African countries, such as Cabo Verde (1.2 per cent) and Mauritius (0.4 per cent per year), there is some control over population growth and it is estimated that the population doubling time will exceed roughly half a century, if the current trends remain unchanged. However, the situation is quite different in the Lake Chad Basin countries, where the correlation between these two variables is negative and translates into a with high population growth and a particularly short doubling for the population.



10% 8% NIGER

CHART 2 Population doubling time per country based on population growth
Source: UNFPA-WCARO, 2017



With current population growth levels, the Lake Chad Basin countries will double their population in an average period of 25 years. It is important to note the substantial variations in the average population doubling period amongst the four countries. Cameroon's population is expected to double in the next 28 years, and Nigeria's in 26 years. The fastest doubling time is expected in Chad and Niger, which beat the world record, with 21 and 17 years respectively. On the other hand, the countries with low population growth, such as Thailand, will take about two centuries (173 years) to double their current population size.

A good analysis of a population's doubling time can stimulate a government's development initiatives for the benefit of future generations. In Niger, for example, where the population doubling time is estimated at 17 years, implies that over half the population will be 17 years of age in less than two decades. It also implies there should be more investment in improving human capital, including the provision of infrastructure for health and education, in order to effectively meet the demand for basic social services from this growing young population.

OVER HALF THE POPULATION OF NIGER WILL BE YEARS OLD IN 2 DECADES

Age structure and the demographic window of opportunity

A dynamic analysis of the LCB population age structure suggests that the demographic transition is two-tiered, when one considers the period when the demographic window of opportunity opened. The opening of the window of opportunity is measured through dependency ratios. This is calculated by considering the ratio of the population aged between 0-15 years and the population over 65 years, which are potentially inactive, as opposed to the population aged between 15-64 years, which is considered to be potentially active.

A dependency ratio below 100 implies that the potentially inactive population is lower than the potentially active population, and that an active person supports less than one inactive person. If, in such a situation, the State invests appropriately thus enabling all these potentially active people to be gainfully employed, the pressure on government resources for investment in basic social services like education and health is reduced. This creates an opportunity for government to invest in more productive sectors and grow its economy.

A review of these ratios suggests that the demographic window of opportunity has been open since 1995 for Cameroon and Nigeria, while in Chad, it opened only recently in 2015 and will remain so after 2063. For Niger, on the other hand, the current pace of demographic transition is still not conducive to the opening of this demographic window of opportunity. In fact, in an average case scenario based on United Nations projections, Niger's demographic window of opportunity is estimated to open by 2035, unless appropriate policies are in place to reverse the country's pro-natalist trends.

To maximize the benefits of the demographic dividend, it is important, therefore, to further minimize average dependency, estimated at 90 per cent, which is still high due to uncontrolled fertility in this region. The LCB's total fertility rate is approximately 5.5 children per woman and ranges from 4.5 children per woman in Cameroon to 5.4 children per woman in Nigeria. The highest fertility rate is observed in Chad, with 5.8 children per woman. Niger on the other hand, beats the world record with close to seven (7) children per woman, according to 2017 data.

1995

CAMEROON AND NIGERIA

2015 CHAD

2035

NIGER



YEARS OF OPENING OF THE DEMOGRAPHIC WINDOW OF OPPORTUNITY



FERTILITY RATES
IN THE LAKE CHAD AREA
(CHILDREN PER WOMAN)



4.5

5.4

5.8 CHAD 7 NIGER

CHART 3 Evolution of the population age structure in LCB countries Source: UNFPA-WCARO, 2017

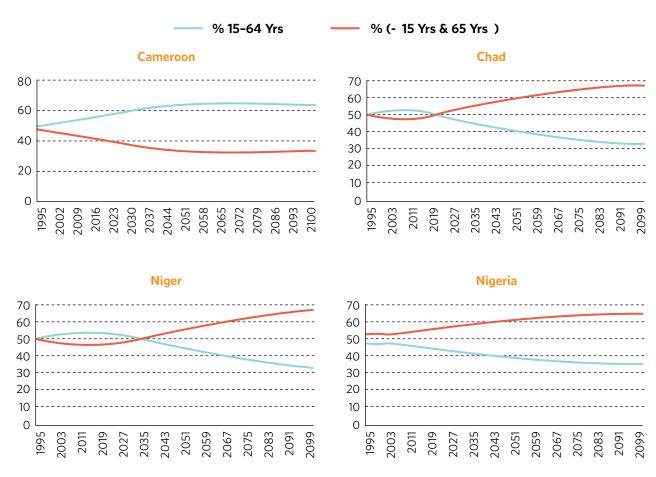
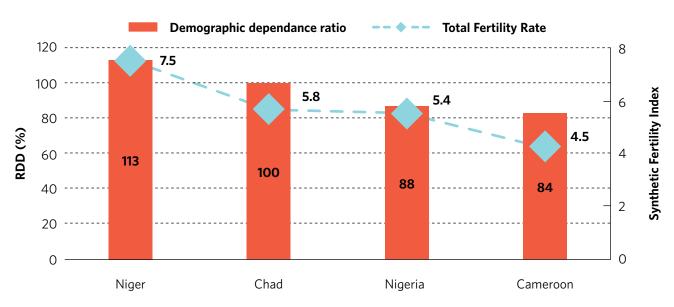


CHART 4 Variations in population dependency based on fertility per country in the LCB countries Source: UNFPA-WCARO, 2017



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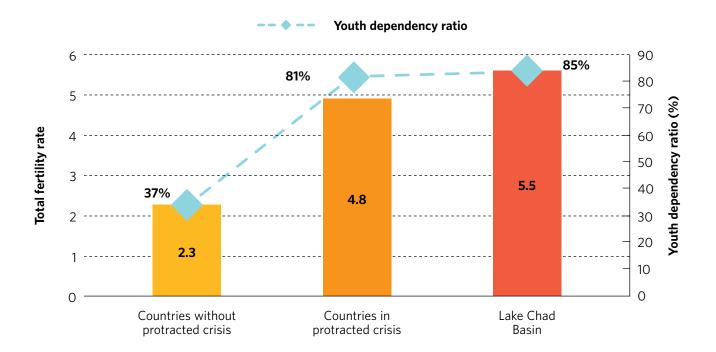
Socio-demographic factors of insecurity in the LCB region and countries in crisis

Fertility level and insecurity

Fertility analysis on the 51 sample countries shows that countries in crisis have higher fertility levels than those which have experienced protracted crises. The total fertility rate in more stable regions is 2.3 children per woman, against 4.8 children per woman in regions with protracted conflict. This makes an average difference of 2.1 points between the two situations.

The LCB has been facing a situation of insecurity for decades with a fertility level of 5.5 children per woman, meaning 0.7 points ahead of countries in crisis. This trend, observed in fertility, holds also in youth dependency ratio, which has a strong correlation with the former.

CHART 5 Variations in youth dependency based on fertility per region category
Source: UNFPA-WCARO, 2017

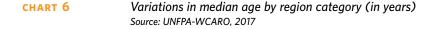


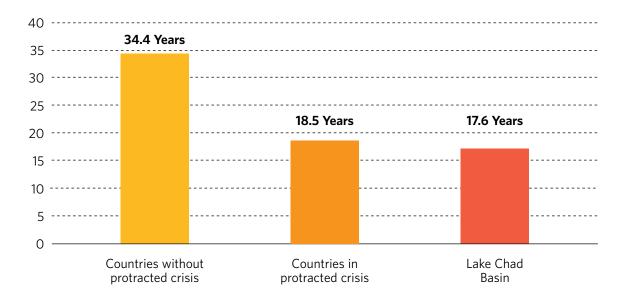
On the other hand, fertility and dependency ratios both relate statistically to the security situation in a country, and this is a significant relationship on the threshold of 1 per cent. In other words, while the causal relationship may still be difficult to establish, this statistical analysis shows that high fertility in a country with a predominantly young population age structure encourages insecurity in the country, everything else being equal. Attempts have been made in this regard elsewhere in the world, and they ended up with the same conclusions (Hewit et al 2003, Leahy et al., 2007).

Hence, the crisis situation around Lake Chad may be associated with the population structure which predominantly comprises youth below 24 years who still depend on older adults and the governments' limited capacity to cover their needs for health, education and gainful employment.

Median age and insecurity

This result is confirmed by associating the median age in the population and the occurrence of a security crisis. It seems especially that the median age in countries that have never experienced a protracted crisis is far higher than that of countries in crisis. This means the number of young people below 30 is lower. In these relatively more stable countries, half the population is at least 34.4 years old, while in the countries trapped in a protracted crisis, half the population is at least 18.5 years old, a gap of 16 years. This means that the population is much younger in the countries facing crisis. This youthful population is seen also in the LCB countries where the median age is barely 17.6 years.





A statistical analysis using cross-tabulation shows that the median age associates negatively with the security situation of a country, and this relationship is significant on the threshold of 1 per cent. Therefore, all things being equal, the risk for a country experiencing insecurity may increase with the youthfulness of its population. The Lake Chad region, with an extremely young population evidenced by its median age, seems to confirm this assumption.

The lack of employment opportunities makes young people more vulnerable to human trafficking and to the fake promises of extremists.

As mentioned by the Deputy Secretary-General for Humanitarian Affairs in the Sahel, Toby Lanzer, "it is necessary to tackle underlying development problems in order to respond effectively to the humanitarian crisis and build resilience in the LCB".

Poverty level and insecurity

An analysis of poverty levels in a number of selected countries shows that the percentage of people living on less than \$1.90 USD a day in countries with prolonged insecurity is four times higher than the percentage of people in more stable countries. It seems, therefore, that the more stable countries in the sample have a poverty level of approximately 11.4 per cent, while the poverty level is 47.5 per cent in the countries experiencing high levels of insecurity. This level does not deviate from the one recorded in the Lake Chad Basin, which stands at 49.1 per cent with large disparities. In Nigeria, over half (53.5 per cent) of the population lives on less than \$1.90 USD a day. In Niger, this poverty level is 46 per cent, whereas in Chad and Cameroon, 38 per cent and 24 per cent of people respectively live below the threshold.

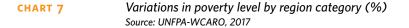
53.5%

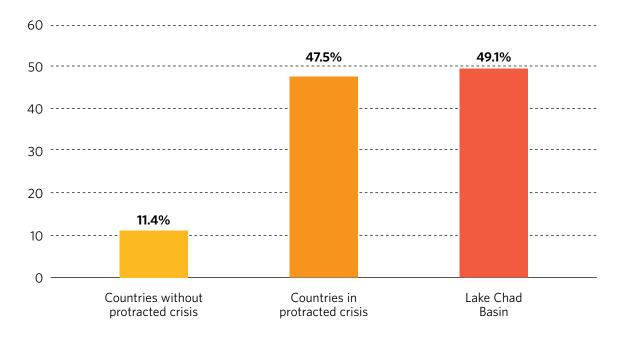
LIVES ON LESS THAN

\$1.90



OF THE POPULATION OF NIGERIA





Considering the statistical linkages established at the threshold of 1 per cent between poverty and insecurity, there is enough evidence to assume that countries with a high poverty level face a greater risk of insecurity.

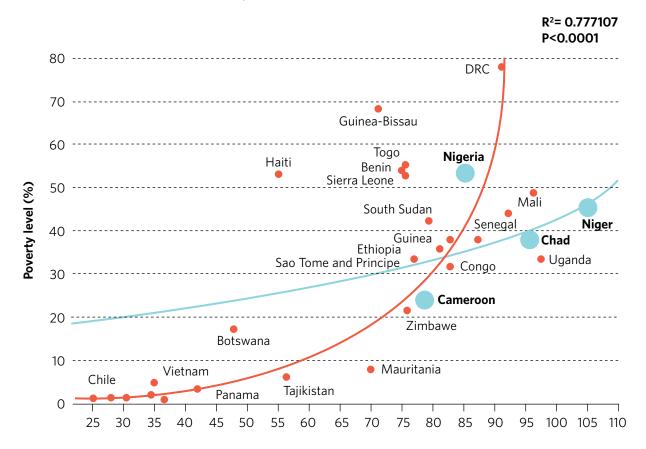
Poverty in the LCB countries could therefore be a factor that contributes to insecurity in this area. With a demographic transition that is shifting the population structure considerably to one with a higher number of young people, the multiple needs need to be addressed simultaneously.





The chart below shows poverty level by youth dependency ratio and highlights a strong correlation between the two. In other words, the countries with a high youth dependency ratio also seem to have high levels of poverty and insecurity. In the four Lake Chad Basin countries, these ratios are high and show that there is a predominance of this population segment.

CHART 8 Variations in poverty level based on the youth dependency ratio Source: UNFPA-WCARO, 2017



6

Implications of insecurity for development in the LCB countries

Insecurity has consequences in many different and varied forms. In several cases, these result in serious cases of human rights abuse, especially among women and children, such as rape and other forms of violence against women, loss of life during childbirth for lack of skilled birth attendance from by health workers, difficulties in accessing family planning services particularly contraceptive methods, and malnutrition, recruitment of child soldiers / terrorists, etc. It is worth noting also that the closure of schools brings further raises the school drop-outs rates, especially among girls.

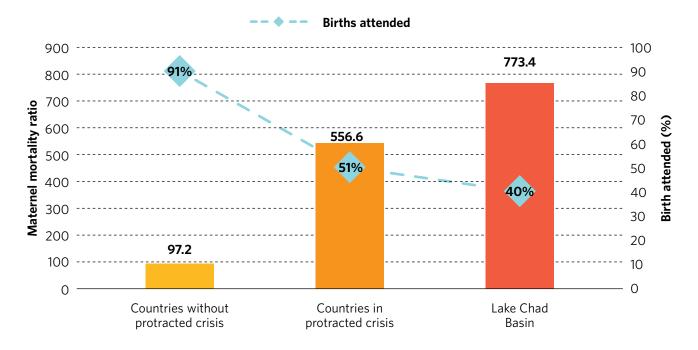
Maternal deaths and skilled birth attendance

The maternal mortality ratio shows the number of female deaths per 100,000 live births. The analysis of this ratio for the 51 countries covered in this study shows that maternal mortality in the countries in crisis is nearly 6 times higher than in the more stable ones. It stands at 97.2 deaths per 100,000 births in the former, against 556.6 in those that have experienced a protracted crisis. The situation is worse in the group of four Lake Chad countries, which have a ratio of 773.4 maternal deaths for every 100,000 live births.

It is important to note that the high maternal mortality rates in countries undergoing crisis result, in part, from low childbirth attendance, as evidenced by the reverse variation trends for the two variables. Maternal mortality is therefore lower in areas with higher birth attendance levels. The level of attendance varies from 91per cent, in countries without protracted crises, to 51 per cent in the countries in crisis and 40 per cent in the Lake Chad target group, where birth attendance levels are lower.

Furthermore, childbirth attendance seems to be associated significantly with the security situation in countries. All things being equal, countries that are experiencing or have experienced a protracted crisis do face a higher risk of unattended births than the more stable ones.

CHART 9 Variations in maternal mortality based on birth attendance by region category
Source: UNFPA-WCARO, 2017



Contraceptive use and adolescent fertility

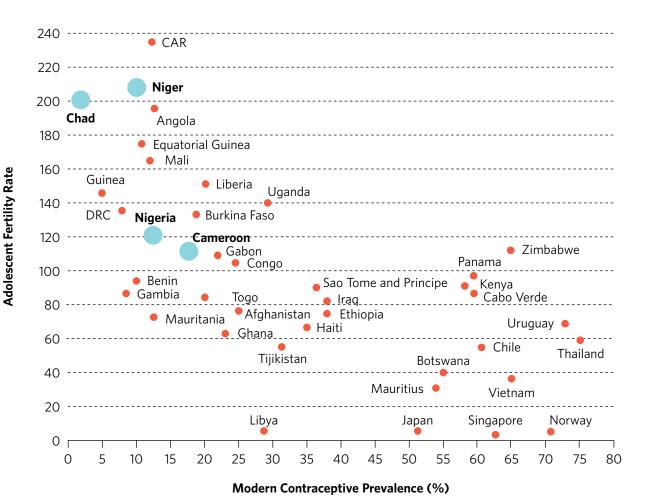
Demographic and Health Surveys (DHS) in Africa show that adolescent fertility makes a significant contribution to overall fertility. The results of the analysis carried out on our sample of countries show that the fertility rates of adolescent girls, which express the number of births per 1,000 adolescent girls aged 15-19 years of age, are much higher in countries in crisis. These rates stand at 114 births per 1,000 adolescent girls in countries experiencing protracted crisis, against 42 births in countries where there is peace, a difference of 72 points. This difference increases when one considers the group of the four Lake Chad countries where the average fertility rate is 133 live births per 1,000 adolescent girls.

42 births 114 births COUNTRIES EXPERIENCING PEACE NUMBERS OF BIRTHS PER 1,000 ADOLESCENT GIRLS 133 births CAMEROON / CHAD NIGER / NIGERIA

The negative correlation between fertility and access to contraception, illustrated in the graph below, can provide evidence of such high fertility levels in countries in crisis. In fact, the lack of resources and dysfunctional health systems, which come in part from poor governance, have a negative impact on the quality of public service delivery, including access to family planning. As with fertility, the results of this analysis confirm that there is a positive relationship between contraceptive use and the occurrence of a security crisis, which translates into lower prevalence levels in countries which have experienced or been through a protracted crisis.

Countries that have not experienced protracted crises have contraceptive use levels that are two times higher than those which have experienced protracted crises. The LCB countries have the lowest contraceptive prevalence, averaging about 12 per cent, against 24 per cent and 52 per cent respectively for countries in crisis and more stable countries. This low prevalence in countries in protracted crisis is mainly related to the very high level of unmet needs in a crisis situation.

CHART 10 Variations in fertility based on contraceptive prevalence Source: UNFPA-WCARO, 2017





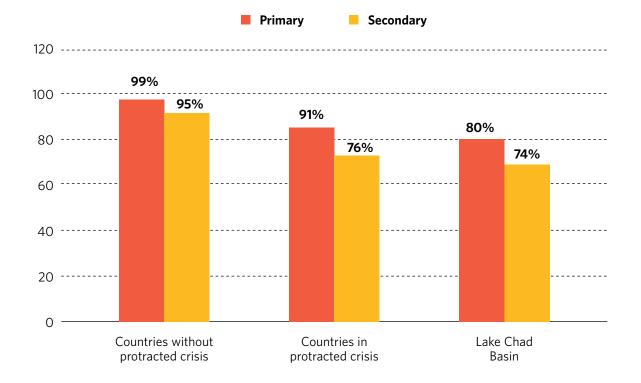
Education

The field of education has the same trends observed in the other indicators. Countries which have never experienced long periods of crisis display higher primary and secondary level enrolment ratios than countries that have experienced protracted crisis.

For example, more stable countries have net enrolment rates of 90 per cent and 60 per cent respectively at the primary and secondary levels, while those in crisis account for 73 per cent and 30 per cent respectively for the two cycles.

An analysis of the gender parity index shows there are huge gaps that widen further as one goes from one school level to the other. While in the more stable countries, there are at least 95 girls for every 100 boys, with almost total parity in primary education, the situation is quite different in countries in crisis. In these latter, it appears that for every 100 boys in primary school there is a corresponding number of 91 girls, while in secondary school there are only 76 girls for 100 boys. In the target countries of the Lake Chad Basin, girls are the ones lagging behind the most with parity indices of 80 per cent and 74 per cent respectively for primary and secondary school.

CHART 11 Variations in the gender parity index by region category
Source: UNFPA-WCARO, 2017



Economic dependency

Considering the limitations of the dependency ratio that compares the inactive population and the potentially active population, but which is not effective when one considers cases of unemployment, invalidity and child labour that are fairly widespread phenomena in Africa, we used the economic dependency ratio or support ratio as a measure of dependency in order to better assess LCB government efforts to create jobs for young people.

The results suggest there is a wide youth life cycle deficit that shows the scope of youth unemployment and underemployment in the LCB countries. The particularly high number of young people from the demographic transition, coupled with the vulnerability of this region that is prone to multiple crises, have made the LCB the region with the highest youth life cycle deficit.

The table below shows economic dependency in the LCB countries. The lifecycle deficit, recorded in the region in 2014, was estimated at 34 per cent of its Gross Domestic Product (GDP), or about USD 200 billion. This deficit also is over six-fold the GDP of Cameroon in 2014.

TABLE 2 LCB Defcit/Surplus (in USD billions)
Source: CREG/CREFAT 2017

Age group	Consumption	Earned income	Life cycle Deficit (+) or Surplus (-)
0-28 years	329,66	84,30	245,35
29-60 years	148,43	200,02	-51,60
61 years and +	21,81	15,80	6,01
Total	499,90	300,13	199,77

This region's life cycle consumption aggregate is estimated at USD 329 billion, while earned income is estimated at EUR 84.3 billion, making a life cycle deficit of USD 245.35 billion for 0 to 28 year-olds. Therefore, youth economic dependency is estimated at USD 245.35 billion, or 42 per cent of the region's GDP.

For the 29 to 60 year-olds, aggregate consumption stands at USD 148.43 billion and earned income at USD 200.02 billion, making a surplus of USD 51.60 billion or 9 per cent of the region's GDP. The deficit for senior citizens, meanwhile, stands at USD 6 billion.

Overall, life-cycle analysis shows that LCB countries have a huge deficit that generational surplus contributions cannot close. The LCB region is still very vulnerable because of its young population: 63 per cent are under 25 years of age with financing needs in excess of USD 245 billion.

The chart below presents life cycle consumption and earned income profile for LCB in 2014. As the chart shows, average consumption is close to USD 1,186 billion at birth, then it increases to USD 2,834 billion by the age of 16, and then begins to decline. In fact, after the age of 16, individuals begin gradually to enter the labour market and the income they earn from their work enables them to cover some of their consumption needs.

On the other hand, when these individuals go on retirement, the elderly get poorer because the old age deficit increases continuously with age. In the case of active persons, they have an excess of earned income from the age of 29. The maximum income level does not exceed USD 4,811 billion by age 44. But after the age of 60, individuals still record a lifecycle deficit.



ARE UNDER

25 YEARS OF AGE WITH FINANCING

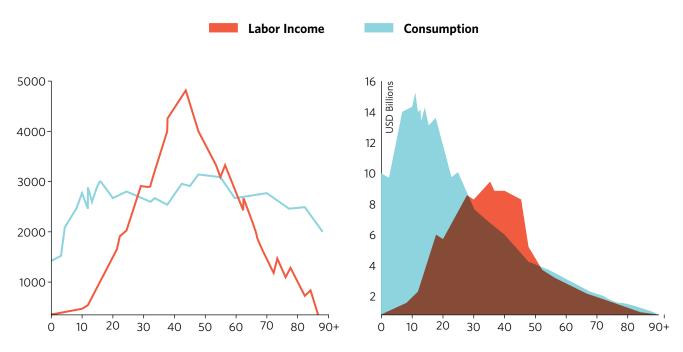
\$245
BILLION





CHART 12 LCB regional average profle in 2014 (USD billions) and LCB regional aggregate profle in 2014 (USD)

Source: CREG/CREFAT 2017



The above chart on aggregate life cycle consumption and income profile shows that the life cycle deficit level is very high for young people (0-28 years) but negligible at old age (61 years and above). The graph actually shows that the deficit at birth is about USD 9.5 billion and increases to the highest level of USD 14.7 billion at the age of 9. On the other hand, the maximum surplus is observed around the age of 39, with a value of approximately USD 3.5 billion. Hence, the sum of youth and old age deficits (USD 251.36 billion) far exceeds the life cycle surplus (USD 51.6 billion).





UNFPA humanitarian response in the LCB countries



IN 2016, THE SUPPLY OF CONTRACEPTIVES, PREVENTED:



837.000

UNWANTED PREGANCIES

150,000

UNSAFE ABORTIONS

4.670
MATERNAL DEATHS

In the LCB countries of Cameroon, Niger, Nigeria and Chad, UNFPA supports governments to implement their population policies, particularly in reaction to sexual and reproductive health, family planning and prevention of HIV and AIDS. UNFPA programmes target groups at risk, such as adolescent girls and women, as well as persons displaced by the "Boko Haram" conflict.

In 2016, about 10 million people used modern contraceptive methods in the four countries through the combined efforts of governments with the support of development partners, including UNFPA. While the supply of the contraceptives was far from enough, considering the unmet needs for contraception, it prevented over 837 thousand unwanted pregnancies, more than 150,000 unsafe abortions and 4,670 maternal deaths.

In the conflict zones with Boko Haram operatives in Niger (Diffa), Nigeria (mainly Borno State, but also Adamawa and Yobe), Cameroon (Far North) and Chad (Lake Region), the 11.7 million people affected by the crisis are mostly women, children and young people who are forced to move from their homes. UNFPA interventions focus on:

- providing life-saving sexual and reproductive health assistance to the affected communities by implementing the Minimum Initial Service Package (MISP);
- improving the mainstreaming of gender, in particular multi-sectoral prevention and response to gender-based violence (GBV);
- providing support for decision-making during the preparatory, response and post-crisis phases of intervention;
- 4. enhancing disaster preparedness for stakeholders by building capacity and providing specific arrangements; and
- building the resilience of vulnerable communities by closing the gap between humanitarian and development interventions.



In 2016, about 1,342,000 people received sexual and reproductive health services and care or counselling services for gender-based violence (GBV) in the conflict zones of these four countries. Among these beneficiaries, 406,000 were adolescents or young people. Nearly 280,000 women received GBV care or counselling services, and 8,400 women or girls used kits for post rape treatment in these conflict areas.

By providing this support, UNFPA manages to maintain continuity in sexual and reproductive health services in the crisis situations in the LCB.



Conclusion and Recommendations

This report and the analyses makes it possible to understand how demographic variables influence the occurrence of armed conflicts or security crises in the Lake Chad Basin. The most significant links are between fertility, population age structure, and maternal mortality. But these purely demographic characteristics that increase the risk of civil conflict or security crisis interact with one another and with other demographic or non-demographic factors that are not taken into account in this study, such as the countries' colonial history, cultural and geographical environment, urbanization and the leaders' political will to implement policies that prevent such conflicts.

The fact that we have left out these aspects in our analyses on the causes of armed conflict and insecurity in the Lake Chad Basin may appear to be a limitation in our study. Nevertheless, the findings in this report are consistent with previous studies conducted elsewhere in the world. For example, Elisabeth Leahy and her allies (2007) showed that countries with very young age structures were more likely to face situations of insecurity than those with a mature age structure. Similarly, in the period between 1970 and 1990, Brian Hewit and his colleagues (2003) showed that countries which were very advanced in their demographic transition were less likely to experience civil conflict than those that were lagging behind in their demographic transition. This probability decreases progressively in these potentially high-risk countries as they experience significant reductions in mortality and fertility levels.

The report therefore is a useful source of information that can be used to guide the development of national policies that would contribute to the stability and social and economic development of the Lake Chad Basin with a particular emphasis on the following aspects:

- Giving women and youth/adolescents better access to quality sexual and reproductive health services, including family planning services, by mobilizing the political will and commitment to provide services that enable women and couples to choose for themselves the timing and frequency of pregnancies that promote maternal and child survival, and that protect adults of childbearing age from HIV and other sexually transmitted infections, epidemics and endemic diseases.
- Using research and advocacy to enable policy makers and development partners to understand the interplay between population dynamics and armed conflict so as to secure funding for family planning, girls' education, maternal and child health, and the prevention of early pregnancies and marriages, which together contribute to lower fertility and mortality.
- Combating child marriage by highlighting its breadth and depth, its underlying factors, and its impact on girls, families, communities and nations. Considering the diverse range of reasons for such marriages, initiatives to combat child marriage should focus on empowering girls, mobilizing families and communities, providing quality services, and instituting and enforcing laws and policies.
- Mobilizing community and religious leaders (who are highly influential and respected, listened to and credible in their communities) as well as youth organizations to support and accelerate on-going transformations, making sure these are adapted to the realities in each country.
- Improving the legal, educational and economic conditions of women and young people by implementing social and political reforms that help girls stay in school until the secondary level, and create economic opportunities for women.
- Improving governance and strengthening national institutions through reforms that align with international development goals and strengthen rule of law, human rights issues, justice, and gender equality and equity.
- Providing support to deliver the humanitarian actions that respond to security crises, while also improving understanding and awareness of the use of violence against women in situations of humanitarian crises.
- Developing and implementing national development policies by integrating data-based analysis of population dynamics and analysis of their linkages with sustainable development, the occurrence of conflict, political instability and security or humanitarian crises.
- → Establishing a multi-stakeholder and multidisciplinary working group on the LCB to translate all these recommendations into projects and action plans.

TABLE 3

Source: UNFPA, 2017	Selected statistics on the LCB countries
	LCB
	countrie
	S

Nigeria	Niger	Chad	Cameroon	Lake Chad Basin (LCB)	Countries in protracted crisis	Countries without protracted crisis	Indicators	
			on I	ad CB)	ed s in	ed ed	Ĭ.	
2.7	4	ω.ω	2.5	2.8	2.7	1.0	Population growth (%)	
17.9	14.8	16.0	18.5	17.6	18.5	34.4	Median Age (years)	
31	31	34	33	31.4	32.1	21.5	Population 10-24 years (%)	Population
82.6	107.5	95.8	78.4	85.0	80.6	37.0	Youth DDR (%)	
87.6	113.3	100.1	83.6	90.1	85.7	57.6	Total DDR (%)	
5.4	7.5	5.8	4.5	5.5	4.8	2.3	TFR (Number of children per woman)	Fert
122	206	203	119	133.5	115	42.5	Adolescent fertility rate (births per 1000 adolescent girls)	Fertility



	Materna	Maternal Health	Sexual an	Sexual and reproductive health	ve health		Educ	Education		Economy
			Con	Contraception (%)	(%)	Net prima enrolmen	Net primary school enrolment rate (%)	Net secondary school enrolment rate (%)	lary school : rate (%)	
Indicators	Maternal mortality	Births attended by skilled workers (%)	Modern prevalence	Unmet needs	Needs met via modern methods	Boys	Girls	Boys	Girls	Poverty (%)
Countries without protracted crisis	97.2	91	52.4	15.1	68.9	94.6	87.6	60.1	60.1	11.4
Countries in protracted crisis	556.6	51	23.8	23.2	40.4	77.5	70.5	34.7	27.5	47.5
Lake Chad Basin (LCB)	773.4	40	11.9	21.7	29.5	74.8	63.5	29.2	22.0	49.1
Cameroon	296	65	18	22	35	100	06	46	40	23.98
Chad	856	24	8	23	11	95	74	16	2	38.43
Niger	553	40	10	18	31	99	57	19	13	45.7
Nigeria	814	38	12	22	30	71	09	×	×	53.47

Distribution of the countries selected in the study sample Sources: FAO's GIEWS and Development Initiatives, updated with the environmental scanning list of countries covered by UNFPA WCARO, 2017

TABLE 4

	×	Zimbabwe	28
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya Liberia Libya Mali Niger Nigeria Central African Republic Democratic Republic of Congo People's Republic of Korea Sierra Leone Somalia South Sudan Tajikistan Chad	×	Uganda	27
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya Liberia Libya Malii Niger Nigeria Central African Republic Democratic Republic of Congo People's Republic of Korea Sierra Leone Somalia South Sudan Tajikistan	×	Chad	26
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya Liberia Libya Mali Niger Nigeria Central African Republic Democratic Republic of Congo People's Republic of Korea Sierra Leone Somalia South Sudan	×	Tajikistan	25
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya Liberia Libya Mali Niger Nigeria Central African Republic Democratic Republic of Congo People's Republic of Korea Sierra Leone Somalia	×	South Sudan	24
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya Liberia Libya Mali Niger Nigeria Central African Republic Democratic Republic of Korea Sierra Leone	Viet Nam	Somalia	23
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya Liberia Libya Mali Niger Niger Niger Nigeria Central African Republic of Congo People's Republic of Korea	Uruguay	Sierra Leone	22
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya Liberia Libya Mali Niger Nigeria Central African Republic Democratic Republic of Congo	Тодо	People's Republic of Korea	21
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea Guinea-Bissau Haiti Iraq Kenya Liberia Libya Mali Nigeria Central African Republic	Thailand	Democratic Republic of Congo	20
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya Liberia Libya Mali Niger Nigeria	Singapour	Central African Republic	19
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya Liberia Libya Mali Niger	Senegal	Nigeria	18
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya Liberia Libya Mali	Sao Tome and Principe	Niger	17
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea Guinea-Bissau Haiti Iraq Kenya Liberia Libya	Qatar	Mali	16
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya Liberia	Panama	Libya	15
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti Iraq Kenya	Norway	Liberia	14
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Côte d'Ivoire Eritrea Ethiopia Guinea Guinea-Bissau Haiti Iraq	Mauritius	Kenya	13
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau Haiti	Mauritania	lraq	12
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea-Bissau	Japan	Haiti	≓
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia Guinea	Ghana	Guinea-Bissau	10
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea Ethiopia	The Gambia	Guinea	9
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Eritrea	Gabon	Ethiopia	8
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo Côte d'Ivoire Countries that have experienced protracted crises Angola	Equatorial Guinea	Eritrea	7
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Congo	Costa Rica	Côte d'Ivoire	6
Countries that have experienced protracted crises Angola Afghanistan Burundi Cameroon Cameroon	Chili	Congo	5
Countries that have experienced protracted crises Angola Afghanistan Burundi	Cabo Verde	Cameroon	4
Countries that have experienced protracted crises Angola Afghanistan	Burkina Faso	Burundi	З
Countries that have experienced protracted crises Angola	Botswana	Afghanistan	2
Countries that have experienced protracted crises Countr	Benin	Angola	
		Countries that have experienced protracted crises	Z _o

TABLE 5

Countries in protracted crisis on FAO's GIEWS Sources: SMIAR de la FAO et initiatives de développement

Pays en situation de crise prolong	e crise prolongée: tyl	pologie des crises, 199	ée: typologie des crises, 1996-2010, et proportion de l'aide humanitaire, 2000-2008	le l'aide humanitaire,	2000-2008
Pays	Seulement catastrophe naturelle	Seulement catastrophe causée par l'homme	Combinaison de catastrophes naturelles et causées par l'homme	Total des catastrophes (1996-2010)	Aide humanitaire / ADP totale (2000-2008)
		(Nombre	(Nombre d'années)		(Pourcentage)
Afghanistan	×	5	10	15	20
Angola	-	11	×	12	30
Burundi	×	14	-	15	32
Congo	×	13	×	13	22
Côte d'Ivoire	×	6	×	6	15
Érythrée	2	c	10	15	30
Éthiopie	2	2	11	15	30
Guinée	×	10	×	10	16
Haïti	11	1	3	15	11
Iraq	×	4	11	15	14
Kenya	6	×	3	12	14
Liberia	×	14	—	15	33
Ouganda	×	4	10	14	10
République centrafricaine	×	8	×	8	13
République populaire démocratique de Corée	9	3	9	15	47
Sierra Leone	×	15	×	15	62
Somalie	×	×	15	15	64
Soudan	×	5	10	15	62
Tadjikistan	3	×	8	11	13
Tchad	2	4	3	6	23
Zimbabwe	2	3	5	10	31



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