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# Niger

## Providing All Nigeriens with Food, Education and Health Care

### A Demographic Perspective

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## Abbreviations and acronyms

AIDS	Acquired immune deficiency syndrome
ANBEF	Nigerien Association for Family Well-Being ( <i>Association nigérienne pour le bien-être familial</i> )
BCC	Behavior change communication
CAS	Country Assistance Strategy
CERMES	Medical and Health Research Center ( <i>Centre de recherche médicale et sanitaire</i> )
GDP	Gross domestic product
HIPC	Highly Indebted Poor Countries
HIV	Human immunodeficiency virus
IDA	International Development Association
IEC	Information, education, and communication
IMF	International Monetary Fund
IPPF	International Planned Parenthood Federation
MDG	Millennium Development Goals
MICSS	Multiple Indicator Cluster Sample Survey
NGO	Nongovernmental organization
PAIP	Priority Action and Investment Program for Population
DHS	Demographic and Health Survey
MPA	Minimum package of activities
PRGF	Poverty Reduction and Growth Facility
PRS	Poverty Reduction Strategy
PRSP	Poverty Reduction Strategy Paper
STI	Sexually transmitted infections
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
WAEMU	West African Economic and Monetary Union
WHO	World Health Organization

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## Executive Summary

Niger is one of the poorest countries in the world, with a per capita GDP of US\$890 (UNDP 2003). It was ranked next to last in the 2002 Human Development Index, which combines indices relating to a population's income, education, and health (UNDP, 2002). The country's ability to reduce poverty and meet the Millennium Development Goals (MDG) is constrained by its high rate of population growth. Indeed, the country's future socioeconomic development hinges in large part on slowing population growth. In the end, everything will depend on the extent to which Niger's leaders focus on this key variable. Two options are possible:

Under one course of action, the government of Niger can decide to embrace this challenge, as other countries—including predominantly Muslim countries such as Bangladesh, Egypt, Indonesia, Iran, Morocco, and Tunisia, as well as Ghana and Kenya in Sub-Saharan Africa—have done successfully. In this case, a rapid start (beginning in 2004 or 2005) to regulating fertility will stimulate a process of demographic transition. Dependency ratios will then continue to improve, and demand for social services, especially demographic investments, will be more successfully met.

Or, following an alternative course, Niger's leadership can decide to ignore demographic growth and reproductive health, and thus risk wiping out previous advances in education and health and hastening a decline in the education and health status of the population. At that point, meeting social needs in terms of demographic and other investments will no longer be ensured, and it will become impossible to restore or improve the quality of greatly deteriorated services.

This report primarily seeks to contribute to the debate about this fundamental choice by providing relevant information based on the most recent data and analyses. All the elements contained in the report clearly show the importance and urgency of determined and effective action to reduce population growth. They also highlight the necessity of meeting the population's reproductive health needs.

Preliminary data from the third General Population and Housing Census indicate that Niger's population was 10,790,352 as of June 1, 2001. Between the 1988 and 2001 censuses, the country had a population growth rate of 3.1 percent per year. At that rate, Niger's population will have reached 11.5 million by mid-2003. UN population projections published in 2002 (medium variant) assume a decline in mortality levels and a simultaneous decline in fertility starting in 2005–10, with fertility reaching 3.5 children per woman in 2050. Even under these optimistic assumptions, Niger's population will reach 53 million in 2050, or five times its current number. With such a population, Niger will be the second most populated country in West Africa after Nigeria.

However, population growth is potentially greater than estimated. The rapid increase in Niger's population can be explained primarily by very high fertility levels coupled with decreasing mortality rates since the end of World War II, although deteriorating health services seem to have slowed or even halted the mortality decline during the 1990s. The most recent total fertility rate indicated by the Demographic and Health Survey (DHS) for 1993–98, is 7.5 children per woman. The United Nations Population Division estimated that Niger's total fertility rate will reach 8 children per woman in 2000–2005, making it the highest in the world. High fertility rates have also contributed to a younger age structure. With close to 50 percent of its population under the age of 15, and about 70 percent younger than 25, Niger has one of the youngest populations in the world. Such a young population, combined with high fertility, leads to a high birth rate and spiraling demographic growth.

The continued high fertility rate is the result of multiple social factors that determine the current reproductive behavior of Niger's population. These factors include pro-natalist attitudes, faith, gender, early marriage, and poverty. The 1998 DHS indicated that desired fertility was even higher than actual fertility. Although about one-fifth of women expressed unmet needs for family planning, most were more concerned with birth spacing than regulating family size. The insufficiency and mediocre quality of reproductive health and family planning services, as well as traditional behavior patterns, contribute to low rates of contraceptive use. Marriage is universal and early, especially in rural areas, where 84 percent of the population lives. Half of all women are married by the age of 15, and less than 1 percent of women never marry. Fewer than one out of ten adult women is educated.

The 2000 Multiple Indicator Cluster Survey (MICSS) (Niger, 2000d) found a national prevalence rate for modern contraceptive methods of 4.3 percent, compared with 4.6% two years earlier (1998 DHS), suggesting a decline in the use of modern contraception in Niger in recent years. Furthermore, the 1998 DHS indicated high levels of child and maternal mortality, which is partly due to a shrinking birth interval. Only 47 percent of the population lives less than 5 km from a medical center and thus has easy access to health services. Cost recovery in medical centers and the unavailability of medicine in drugstores, among other problems, have limited Nigeriens' ability to purchase medicine or contraceptives.

These factors contribute to Niger's being much less advanced than other Sub-Saharan countries with regard to fertility decline. In any context, such demographic, reproductive health, and poverty data would make the search for solutions to development problems, especially those related to human development, extremely difficult. For Niger, geographic circumstances and a harsh climate make the situation even more acute.

The only grains adapted to rain-fed agriculture (millet and sorghum) can be cultivated on a mere 12 percent of the country's land area because of the scarcity of rainfall. Corn can be grown on only 1 percent of the territory. However, extension of cultivated areas has allowed food production to increase although the land area suitable for rain-fed agriculture declined by half while the population tripled. Cultivation on less-fertile soil and the shortening, or even the abandonment, of the practice of fallowing the land (a traditional mechanism to build up soil fertility) have caused a steady decrease in millet and sorghum yields during the past 30 years. The gap between national grain production and the needs of the population is estimated at 400,000 metric tons per year, or about 15 percent of basic needs. This gap can be explained by the decrease in agricultural productivity, which in turn is a result of the high population growth rate, poor soils, insufficient and irregular rain cycles, and environmental degradation. All these factors endanger the country's agro-pastoral sector, and therefore the sector's capacity to ensure food security for the population.

Population growth also creates enormous challenges in the education sector. Even assuming a gradual decrease in fertility, the number of children 6 to 12 years old and thus eligible for primary school, will increase dramatically in the coming years—from an estimated 2.2 million in 2000, to 3.3 million in 2010, and 4.5–5 million in 2020. Such an increase in the number of school-age children, and because no more than one-third of school-age children currently goes to school, will make the fundamental objective of universal school enrollment for boys and girls very difficult to achieve despite efforts to accelerate enrollment.

The health sector is also threatened by too-rapid population growth. Shortages of medical personnel and insufficient funding for the sector are already difficult issues to resolve. They will become almost insurmountable if the population quintuples by 2050. The World Health Organization (WHO) recommends one doctor for every 10,000 people, but Niger has only one doctor for every 47,531 people. In 2050, with five times today's population, Niger will need 25 times its current number of doctors to reach the ratio recommended by WHO. Training needs for paramedical personnel are similar in scope.

The Government of Niger is determined to meet the development challenge. It has adopted a considerable number of policies, such as the National Population Policy (1992) and the National Youth Policy (1998), as well as several other sectoral strategy documents. The Government is also equipped with a Poverty Reduction Strategy (PRS), which was adopted in

early 2002. PRS coordination and implementation have been assigned to the PRS Permanent Secretariat, which is attached to the Office of the Prime Minister. In addition, in April 2001 the president of the Republic launched a special development program based on use of HIPC (Highly Indebted Poor Countries) resources.

The specific objectives of the 1992 National Population Policy were to slow population growth and reach a balance between population growth and economic resources. However, despite the commitment of the government and several of its partners, the National Population Policy's weak conceptual framework and inadequate implementation produced limited results. Several obstacles and constraints have also been encountered, including awareness-raising messages that were inadequate in the Niger context, the low level of education among the population, insufficient health coverage (including reproductive health and family planning services), and the social and cultural constraints of extreme poverty. For the same reasons, implementation results of the Priority Action and Investment Program, as well as of several population-focused projects such as the World Bank-financed Population project, have been mixed. Currently, the Kollo South-South Cooperation project for reproductive health (with Niger-Tunisia collaboration and financing from France) seems to be the only promising avenue, although the sustainability of activities proposed in this project has not been proven.

Although lessons were learned from the implementation of the National Population Policy, and the PRS identified the demographic issue as the country's primary challenge, it does not give population the same priority it gives education and health in the strategies proposed. Priority actions selected for population issues fall under the fight against HIV/AIDS and essentially cover (1) human resource development through the strengthening of technical skills for implementing population activities; (2) the introduction of a mechanism to raise awareness of the links between population and development issues; and (3) support to studies and research on population and health. Moreover, the socioeconomic objectives included in the Poverty Reduction Strategy Paper (PRSP) are overly optimistic—even unrealistic—because no concrete action is proposed for reaching them.

The President of the Republic's special development program complements the implementation of the PRS and uses HIPC resources to build 1,000 school rooms, 1,000 health centers, 100 sources of water (or wells), and 100 mini-dams every year. The first phase of the program was implemented April 2001–December 2002; the second phase started in January 2003 and is ongoing. In the first phase, FCFA 16,840,170,342 (about US\$33,689,341) was provided for construction work (health centers, wells, mini-dams, etc), FCFA 707,236,996 (about US\$1,414,474) was provided for activities specifically for women (credit, purchase of grain mills, etc.), and FCFA 498,000,000 (about US\$996,000) was provided to prepare the PRSP.

Important though these initiatives are, if the country wants to be successful, the population variable has to be genuinely taken into account in the implementation of both the PRS and the President's development program. If no urgent and sustained action is undertaken to immediately slow population growth, the prospects for achieving the central goals of the PRS and the special program of the President of the Republic—whether in terms of food security, universal primary education, or comprehensive health and vaccination coverage—will be compromised. The same is true of meeting the MDGs. Considering that those who worked on preparing the PRS identified rapid population growth as one of the primary constraints on the country's development, the government is aware of the importance of this issue.

This report seeks to contribute to the consideration of demographic growth and development in Niger. It emphasizes that if Niger wants to improve the living and health conditions of the poor and reach the MDGs, which are identical to the goals of the PRS (see Annex 1), it must address the major problems of responding to the needs of a rapidly growing population, including reproductive health needs (see the World Bank Country Assistance Strategy, 2003a). Therefore, the three main objectives of the analysis are to: (1) examine population and reproductive health issues, specifically the impact of population growth on food security, schooling and health coverage; (2) propose concrete solutions to reduce the current high rate of population growth and meet reproductive health needs; and (3) attempt to identify key players and potential leaders on these issues in Niger.

The analysis focuses on: (1) the study of population (development and impact on different sectors) and reproductive health issues, including the HIV/AIDS epidemic; (2) examination of institutional structures responsible for population and reproductive health issues; (3) the performance of the population program since the 1984 Mexico Conference, and during the 10 years since the 1994 International Conference on Population and Development in Cairo; (4) factors hindering or helping the development of population and family planning activities, including gender issues (for example, the Family Code and the strong resistance to its adoption); (5) specific recommendations for future activities; (6) the institutional and organizational structures needed for new and effective interventions; and (7) the strategic dissemination of the report's conclusions.

To address the problem of high population growth, authorities will need to mobilize adequate levels of domestic, bilateral, and multilateral financing to establish consistent, long-term, nationwide programs. Financing, especially as part of the debt relief process (HIPC Initiative), is insufficient. It will also be important to take coordinated and concerted action at the national level instead of pursuing piecemeal efforts and a start-and-stop approach. The best strategy would undoubtedly be to set limited objectives, but on a national scale. Trying to cover the whole range of population activities throughout the country will inevitably fall short.

At present, the political will to invest in population and reproductive health activities, including family planning, on a large scale and in the long term, is sorely lacking. It is true that these critical decisions are thorny and touch on the country's cultural, social, and religious traditions. In the final analysis, these decisions are eminently political and rest in the hands of the leaders and people of Niger. They also have social and economic implications for which the national leadership must take responsibility in front of both the people of Niger and its development partners. Organizing a national forum on population issues in which all these elements can be discussed would be valuable.

## Introduction

Between censuses conducted in 1988 and 2001, Niger's population increased an average of 3.1 percent per year. At this rate, its population will double in 23 years. According to the United Nations, Niger has the highest fertility rate in the world, estimated at 8 children per woman, as well as the youngest population—almost 50 percent of Nigeriens are under 15 years old. Niger is also one of the few countries where desired fertility is higher than actual fertility. Even if fertility begins to decline in the next few years, Niger's population will continue to grow in an unprecedented fashion. Thus, according to the most recent United Nations population projections published in 2002, even assuming a downturn in fertility beginning 2005–2010 (from 8 to 3.5 children per woman by 2050) and a parallel decline in mortality, the population will quintuple in the next 50 years, from 11.5 million today to 53 million in 2050 (see Annex 4). Niger will then be the second-most populous country in West Africa after Nigeria.

For most countries, such demographic constraints alone would make attaining socioeconomic development and poverty reduction objectives nearly impossible. But this demographic growth and its consequences are of even greater concern for Niger given its enormous climatic challenges and extreme scarcity of economic and natural resources. Since independence, the population of Niger has tripled, while its arable rain-fed land area has declined by half because of drought. The population/arable land ratio is therefore six times higher today than at independence. In this context, the continuation of current demographic trends is a serious threat to the success of Niger's Poverty Reduction Strategy (PRS) as well as to the achievement of the Millennium Development Goals (MDG) (see Annex 1).

Unless immediate action to begin to slow demographic growth is taken, the country's needs for food, universal primary education, and total health and vaccination coverage cannot be met. A reduction in poverty levels will also be impossible. All these goals will be beyond reach without a slowdown of demographic growth, which means a sizeable reduction in current fertility levels.

This report begins by analyzing the demographic situation in Niger and the country's economic and natural resources. It then discusses the constraints associated with rapid demographic growth in terms of three critical elements: food security, universal primary schooling, and total vaccination and health coverage.<sup>1</sup>

The report then reviews lessons learned and the current practice in population and reproductive health programs. Implementation of the National Population Policy adopted in 1992 did not achieve much, and implementation of the Poverty Action and Investment Program (PAIP) for population issues also encountered difficulties. Results of some population-focused projects were also mixed (see Annex 5). However, the new Kollo South–South Cooperation project with French financing that relies on mobile reproductive health teams could be a promising avenue if the sustainability of this kind of intervention can be ensured.

The last section of the report attempts to determine solutions for reinvigorating population and reproductive health activities in Niger. Five possibilities merit consideration: (1) Relaunch the public appeal campaign on population issues; (2) Rehabilitate family planning; (3) Reinvigorate national actors, including by identifying potential leaders; (4) Provide nationwide service coverage; and (5) Improve coordination of activities, with a different and

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<sup>1</sup> This demographic pressure will also certainly have an impact on the environment. As settlements grow in previously marginal areas—because of the insufficiency of existing spaces but also as a result of global warming, which intensifies periods of drought and their effects, forcing populations to relocate—natural disasters are likely to multiply.

more effective anchor than under the current system. The concrete implementation of these various possibilities is explored. A program of future research is also proposed.

The study's main conclusion is that Niger will reach its poverty reduction objectives and the MDGs only if fertility begins to decline rapidly. Therefore, population issues will remain at the core of development and poverty reduction in Niger for a long time to come, and the attention they receive will undoubtedly determine the chances for the country's socioeconomic development and the outcome of its poverty reduction efforts.

# 1. Overview

This chapter briefly reviews the study's objectives, the methodology used for the analysis (including the modeling tools), the partners who collaborated in the process, and the mechanisms for distributing the study's main conclusions.

## Study Objectives

The overall objective of this study is to analyze population and reproductive health issues in Niger and propose concrete recommendations for key variables, most notably in the implementation of the PRS. To accomplish this, the study focuses on the following six main points or intermediary objectives:

- Conduct an inventory of available baseline data (Annex 2) and identify the data needed to fully understand the demographic variable, focusing on achieving the objectives of the PRS (preliminary findings of the 2001 General Population and Housing Census,<sup>2</sup> Niger, 2003b; demographic projections taking into consideration changes in proximate determinants of fertility (Annexes 3 and 4) and the prevalence of HIV/AIDS; and projections derived from educational and health care needs);
- Analyze the impact of population growth on various development sectors, particularly food security, education, and health, especially in terms of achieving PRS objectives;
- Draw lessons from population activities of the past 20 years, assessing previous experience as well as ongoing efforts; in this context, highlighting the strong points and constraints perceived by main actors, especially Nigerien institutions and people;
- Identify all key actors and groups or associations that might be involved in various population and reproductive health activities (ministerial departments, universities, civil society, religious and traditional groups, development partners, community chiefs, family planning activists);
- Recommend actions in population and reproductive health, taking into consideration the sociocultural realities of Niger, and identify appropriate actors to implement these actions effectively;
- Define areas in which the World Bank could provide a comparative advantage in helping the government and other actors implement population and reproductive health activities.

Thanks to people working in the field and better knowledge about past and ongoing efforts, the study establishes a foundation that should facilitate the execution of the PRS. To accomplish this, the authors provide an assessment the main actors in terms of experience, human resources, qualifications, and high-priority areas for intervention.

## Methodology

The authors conducted an analysis of all available documents. These included the Demographic and Health Surveys (DHS) of 1992 and 1998 (Macro International Inc., 1993 et 1999a), the Multiple Indicator Cluster Sample Surveys (MICSS) of 1996 and 2000 (Niger, 1996a and 2000d) other data sources, such as the most recent World Bank report on health, nutrition, and population in Niger (World Bank, 2003b), other secondary analysis surveys, and

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<sup>2</sup> Referred to hereafter as the General Census.

assessments of Nigerien specialists (Gado and Tahirou, 2001; Harouna, 1998 and 2002) and their development partners (visits and interviews with local public and private actors and nongovernmental organizations [NGOs]).

The study followed a participatory approach, ensuring that key actors were involved in the formulation of a national response to population issues. It also contributed to the identification of groups active in Niger, the need for political dialogue, the necessity of consolidating and replicating results obtained in Niamey in rural areas in spite of difficult circumstances, the specific challenges of engaging rural populations in adopting new reproductive behavior, and the creation of synergies with other development sectors.

The study focused particularly on reviewing the lessons and experience of the past, including the World Bank Population project (Annex 5). It assessed a new opportunity in Niger for pursuing synergy—ensuring that reproductive health services are completely integrated into the minimum package of activities (MPA) for the public sector (and its private partners) in the fight against the HIV/AIDS pandemic. The MPA should include activities to control sexually transmitted infections (STIs), including HIV/AIDS, with reproductive health services (obstetric care, family planning) and be offered in all health centers in Niger.

### **Partners and Study Dissemination**

Several development partners, such as the United Nations Population Fund (UNPFA), UNICEF, European Union, as well as other bilateral donors and NGOs were closely associated with the analytical work. Some, following UNPFA's example, contributed to every stage of the analysis as well as to the validation workshop; they will also participate in efforts to disseminate the study conclusions.

A broader consensus was reached among the various Nigerien actors and their development partners during the analytical work phase. A Nigerien consultant was hired, and a technical validation workshop brought the main players together in Niamey in early May 2003 to share the findings and obtain their approval before the report was finalized. The workshop brought together some 60 people who assessed several population models and socioeconomic variables in Niger (for example, the food security model), analyzed new data (especially the preliminary General Census data from, 2001), and proposed specific research topics on population issues in Niger.



## **2. Demographic Assessment of Niger**

This chapter looks at Niger's recent settlement history before analyzing the components of population growth, especially since the 1960s, by highlighting fertility in particular. Next, it presents current demographic projections, then concludes with an analysis of the challenges that increasing demographic pressure places on resources, by studying population densities and urbanization.

### **Settlement History**

Heir to the great empires of West Africa, the colonial territory of Niger was created by the unification of several political entities that had fought over land until the end of the 19th century. French colonial campaigns began in the west, inhabited mostly by Songhay and Zarma peoples who had relocated there in the 16th century following the dispersion of the Songhay Empire. Colonial campaigns were conducted in the south to rally Hausa populations, who came from the Peul Empire of Sokoto, as well as in the east, where people of the Kanem and Bornou Empire lived. The northern part of the territory, inhabited by Arab-speaking and Berber populations, was conquered in the beginning of the 20th century.

The first administrative census in 1905 estimated the total population of the territory at 1.075 million inhabitants (Guengant and Banoin, 2002). Besides a few subsequent irregular administrative censuses of varying quality, no reliable estimate of the Nigerien population is available before the country's independence in 1960. At that time, surveys put the population at 2,876,000 inhabitants. During the first 60 years of the 20th century, the Nigerien population grew two-and-a-half times.

This growth is far from negligible considering the conditions of the period. It is the result of high fertility and variable mortality marked by spikes of excess mortality. The beginning of the 20th century was characterized by frequent food shortages, and even famine, that caused excess mortality in the most vulnerable populations, especially children and old people, and the emigration of the able-bodied (most often men) to coastal areas (Boureima, 1994). Episodes of epidemics, mostly cholera and measles, were added to these periods of food shortage and famine. At the beginning of the 20th century Niger experienced various periods of population decline followed by upturns (Guengant and Banoin, 2002). For the entire first half of the 20th century, various available estimates suggest an average annual population growth rate of between 1.0 percent and 1.5 percent, which is high for the period.

### **Components of Population Growth**

Despite famines and epidemics, Niger probably began the first phase of its demographic transition, meaning the 100-year decline in mortality levels, between the two world wars. This was the result of various actions taken by the colonial power, such as sanitation measures and delivery of food during shortages.

This decline in mortality undoubtedly accelerated after World War II, due to more effective public health measures, especially vaccination campaigns. However there is no data to precisely define the evolution of mortality between 1960 and 1990 (although some survey data and indirect estimates based on the theory of stable populations exist; Wiesler, 1975). It is only after the DHS were carried out in 1992 and 1998, with their findings on infant mortality levels, that overall levels of mortality in Niger and an idea of mortality trends can be estimated. Thus, on the basis of 1998 DHS data, the under-five mortality rate was estimated at 274 per thousand live births (compared to 326 per thousand in 1992), the infant mortality rate at 123 per thousand live births (these rates are among the highest in the world), maternal mortality at 652 per 100,000 births, and life expectancy at birth at 47.2 years for both sexes. A comparison of DHS

findings from 1992 and 1998 also highlighted that the decline in infant and child mortality stopped in the 1990s.<sup>3</sup>

The prevalence of HIV is still low in Niger, unlike in neighboring countries. In 2002 it was estimated that 0.87 percent of Nigeriens aged 15 to 49 were infected (CERMES,<sup>4</sup> 2002). The country is at a stage where it can halt the pandemic through effective and coordinated intervention. However, if for some reason the pandemic begins to spread rapidly without being checked, it would cause a significant increase in mortality rates.

The driver of population growth in Niger remains extremely high fertility—eight children per woman—the highest in the world according to estimates of the Population Division of the United Nations. In the most densely populated regions of central and western Niger, the average number of live births for women aged 40 to 49 is higher still: 8.3 and 8.1 in Maradi and Dosso, respectively (Figure 2.1). Moreover, women of reproductive age (15–49) make up 21 percent of the total Nigerien population, and 45 percent of these women are 15 to 24 years old. This combination of a high total fertility rate and a large relatively youthful female population of childbearing age explains Niger's very high birth rate.

These high levels of fertility can be explained in part by the pro-natalist stance of a large section of the population. Niger is one of the few countries in the world where desired fertility is higher than actual fertility. Married women interviewed for the second DHS (1998) wanted to have 8.5 children, compared to 12.3 for married men and 15.3 for polygamous men. Among married women interviewed in 1998, 53.6 percent wanted to have another child after having six surviving children. For married men with six surviving children, 82.4 percent wanted more. While women had difficulties in completely fulfilling their wishes because of health problems linked to multiple childbirths and the upper age limit for childbearing (about 50 years), men often manage to satisfy their desire for offspring thanks to polygamy, which is common in Niger. The second DHS (1998) found that two-fifths of married women live in a polygamous household and that in 6.4 percent of cases, they share their husband with at least two other women. One in five married men has two wives and in 2.2 percent of cases, has at least three. These unions begin at an early age, for both men and women. Almost half of all women (46.8 percent) first have sexual relations before age 15, and two out of three men (65.1 percent) have sexual relations before age 22.

The Nigerien sociocultural environment is also characterized by the predominance of traditional beliefs, customary practices, and reliance (sometimes partial) on religious texts in civil matters. People are reluctant to adopt modern methods of birth spacing and fertility management. The prevalence of early marriage and polygamy are justified by the need to have a large family in accordance with religious and traditional beliefs, which promote the expansion of the community. Thus, it is not uncommon to hear, "The Creator will take care of the needs of his faithful ones, in this world and beyond." One of the consequences of these traditional views is the extremely low level of fertility management.

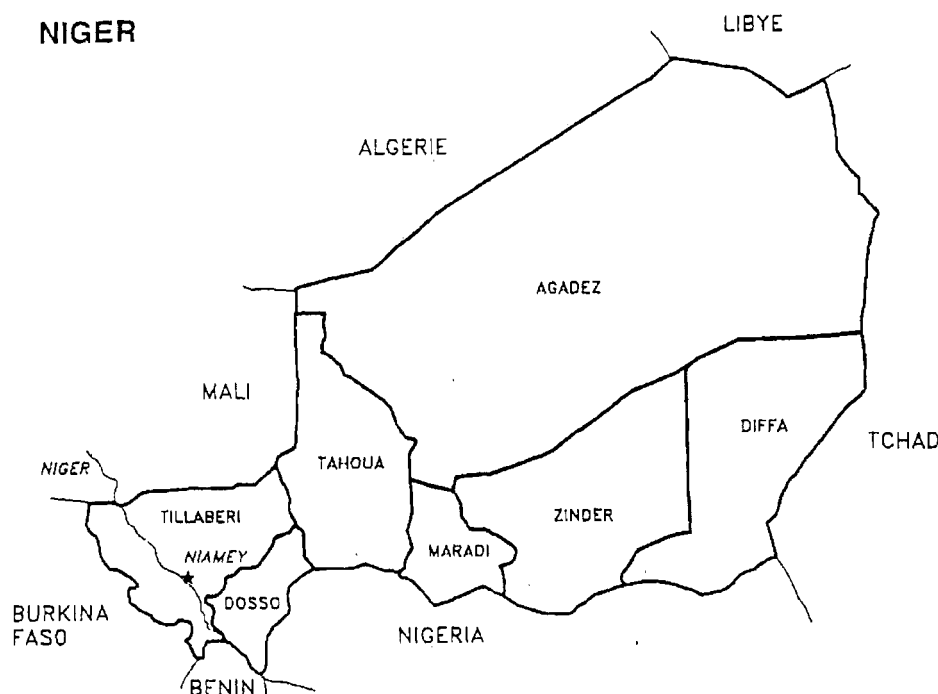
The infrequent use of modern methods of contraception—in 1998 only 4.6 percent of Nigerien women used a modern method and 3.6 percent used a traditional method of family planning (Box 2.1)—combined with the extremely young age of women at first childbirth, has harmful consequences on the health of mothers and young children, with very high risks of mortality (especially obstetric fistulas linked to prolonged labor). Thus, the level of maternal mortality is at least 652 per 100,000 births, and the risk of neonatal mortality grew from 40 per 1,000 to 44 per thousand between 1992 and 1998.

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<sup>3</sup> Population growth would have been even greater if the decline in mortality had continued.

<sup>4</sup> Medical and Health Research Center (Centre de recherche médicale et sanitaire).

Figure 2-1. Map of Niger and its Regions



Source: World Bank, Niamey Office.

Changes in mortality and fertility rates determine demographic growth trends in Niger.<sup>5</sup> Estimates from surveys carried out in 1959/60 and the population numbers obtained from the General Censuses of 1977, 1988, and 2001 (Guengant and Banoïn 2002; UNDP 1997; Niger 2003b) allow the reconstruction of demographic trends during the last half of the 20th century:

<u>1905</u>	<u>1960</u>	<u>1977</u>	<u>1988</u>	<u>2001</u>
1,075,000	2,876,000	5,102,980	7,251,626	10,790,352

These figures show that demographic growth accelerated beginning with independence, and that the time required for the population to double was reduced significantly. While it took more than half a century during the colonial period, from 1905 to 1960, for the population to double, the four decades since independence, have been marked by a tripling of the number of inhabitants. Niger went from 2,876,000 inhabitants in 1960 to 10,790,352 in 2001. Population numbers more than doubled in every administrative subdivision of the country between 1977 and 2001, and some districts, such as Arlit, even quintupled in size (see Figure 2-2). Only the Tchinta-Baraden district experienced a population decline between 1977 and 1988, before returning to demographic growth between 1988 and 2001. This strong population growth led to heavier demographic pressure on limited resources.

<sup>5</sup> The role of emigration is little understood but is assumed to be appreciably less important than those of fertility and mortality.

### Box 2.1. Unmet Needs for Family Planning

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In 1998, one woman in five (21.8 percent) expressed a need for family planning. But in ninety percent of these cases, the expressed need was to space children, not regulate family size. Use of contraception, all methods combined, concerned 7.6 percent of women aged 15 to 49 years (4.4 percent for modern methods, 3.2 percent for traditional methods). This means that 14.2 percent of women, or one sixth, expressed an unmet need for family planning, principally a need for spacing, and the unmet needs for family planning were nearly three times greater than the met needs.

These figures, underlining the low level of use of modern methods of contraception, reflect, in part, the low level of supply of modern contraceptives. But they also emphasize the still-modest nature of the demand for contraception, which is mostly for spacing. The notion of unmet needs in family planning must be used with care in these circumstances. Indeed, the existence of unmet needs assumes that there is an expressed demand. Yet this notion varies, essentially according to how widespread the notion of contraception as a means to regulate fertility is. In societies where most women have accepted this idea, upwards of 70–80 percent of married women express a need for family planning to delay their first birth, space births, or halt fertility. In many industrialized and developing countries these needs are generally met through public or private health services, or modern contraception distribution channels. In comparison, in societies where the notion of family planning is not widely accepted, and where, like in Niger, all young couples are expected to have children as quickly as possible because of social or family pressure, the practice of contraception not only remains uncommon, but is also associated with needs (met or unmet) that are viewed as unimportant.

Expression of demand for family planning is associated with the spread of the notion of contraception. Demand grows as the notion of contraception gains ground in new population groups, such as from urban to rural areas and from educated to less-educated women. The spread of this idea and the extent to which the expressed demand is met are also a function of information, education, and communication (IEC) and behavior change communication (BCC) accompanying the services provided. Niger is at the beginning of these processes. In these conditions, it is not surprising that contraceptive use has remained uncommon, and that the expressed unmet needs are not greater.

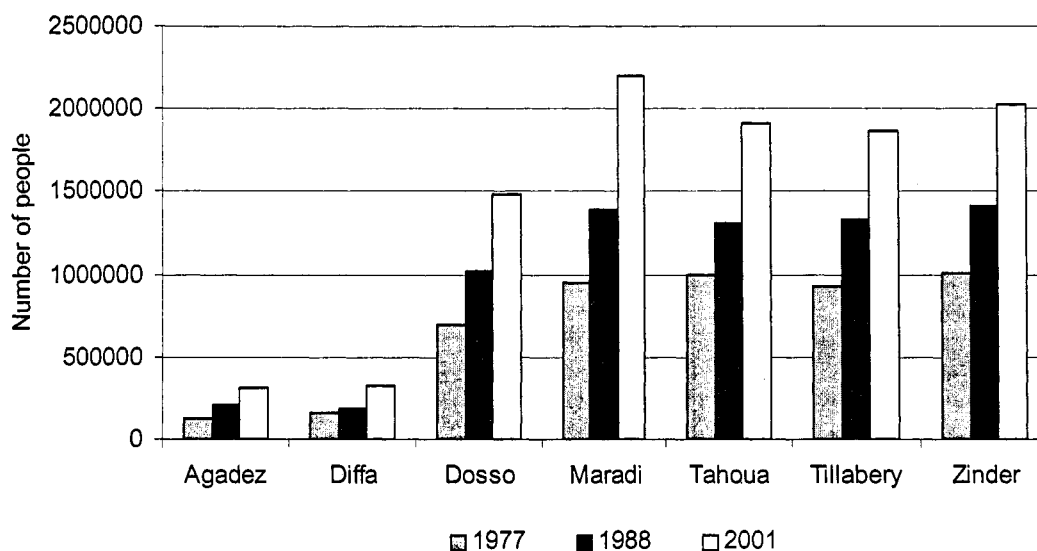
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### Demographic Projections

Projections of the Nigerien population for 2000–2025 were calculated in 1994 by the National Population Directorate in collaboration with the Center for Population Study and Research in Africa and Asia—the first reliable projections of population figures made for Niger. They show that even assuming a steady decrease in fertility starting in the early 1990s, demographic growth in Niger will remain high throughout the subsequent 20 years. Indeed, these projections, assuming a steady decrease in fertility, found that the total population will grow from just under 10 million in 2000 to nearly 18 million in 2025 (Niger, 1994b).

The preliminary findings of the third General Census (2001) demonstrate that the assumptions on which these projections were based have not been borne out. The fertility level in particular, which was supposed to decline from 7.4 children per woman in 1992 to 6.2 between 2000 and 2005, and to 4.2 between 2020 and 2025, has not gone down. In fact, the 1998 DHS estimated the fertility rate at 7.5 children per woman for the period 1993–1998, and the United Nations now puts it at 8 children per woman for the period 2000–2005. Use of the most effective modern contraception methods is still too low to have any effect on the fertility level, although some providers of family planning services indicate that there has been an increase in the number of users (both male and female) of modern contraception methods, and that couples are less reluctant to embrace the principles of voluntary birth spacing than before.

Figure 2-2: Population Trends by Region, 1977–2001



Sources: Guengant and Banoin, 2002; Niger (2003b).

The most recent national level projections of population figures for Niger are those of Guengant and Banoin in their research on food security (Guengant and Banoin, 2002). In their medium-variant scenario, which assumes a decline in fertility from 7.5 children per woman in 2000 to 5 children in 2050, and an increase in life expectancy at birth for both sexes from 45.2 years in 2000 to 66.5 years in 2050, the population of Niger will reach 57 million inhabitants in 2050.<sup>6</sup> With the same assumptions for mortality, but assuming a faster decline in fertility, to 3 children per woman in 2050, Niger's population will reach 43 million in 2050. Conversely, with no decline in fertility, Niger's population will reach 78 million in 2050.

International organizations also regularly make population projections for every country in the world, including Niger. The Population Division of the United Nations (2002), in its medium-variant projection, forecasts the population in 2050 to be 53 million inhabitants.<sup>7</sup> These elevated results, close to those of the medium variant given by Guengant and Banoin, are explained by the fact that fertility has not begun to decline in Niger and that mortality, although still high, is not expected to be affected by the HIV/AIDS pandemic, because Niger, at least currently, has a low HIV prevalence—the lowest in Sub-Saharan Africa.

In comparison, World Bank projections for Niger show a population of “only” 28 million inhabitants in 2050, which is close to the figure given by the U.S. Census Bureau.<sup>8</sup> However, both these sets of projections assume the beginning of a decline in fertility, which has not yet occurred, and a much higher impact of HIV/AIDS than has been indicated for Niger. The difference between the U.N. projections and this set of projections underlines the importance of the point at which fertility begins to decline. Because the most recent available data indicate that fertility has not begun to decline, the authors of this report have decided to use the U.N. medium variant projections, while emphasizing the necessarily speculative nature of any demographic projection 50 years in the future. This timeframe nevertheless appears to be justified from the viewpoint of a public appeals campaign on population issues, which is one of the fundamental points of this study.

<sup>6</sup> For a complete summary of projections for 2050, see Annex 4.

<sup>7</sup> These projections are available on the Internet at <http://www.un.org/esa/population>.

<sup>8</sup> The data are available on the Internet at <http://www.census.gov/cgi-bin/ipc/idbsprdl/>.

The U.N. medium-variant projection (Table 2.1) shows a slow change in dependency ratios. This is the ratio, expressed in percentage points, between children younger than 15 and people older than 65, on one hand, and adults between 15 and 64 (working-age), on the other.<sup>9</sup> Dependency ratios begin to become favorable (i.e. allowing increased savings) only by about 2035. The high number of children under 15, the age group that requires the greatest demographic investment, inflates these ratios.

In any case, whichever scenario is used (and all count on a decline in fertility), the magnitude of the figures put forward is still striking. All predict an inevitable doubling of the Nigerien population in the next 20 years, and by 2050, depending on the projected speed of fertility decline, a quadrupling, or even quintupling, of the current population. This brings us to an assessment of the evolution of population densities and future urbanization trends in Niger.

### Density, Demographic Pressure, and Urbanization

The evolution of demographic pressure has typically been understood by studying population densities. The preliminary data of the third General Census (2001) indicate that at the national level there is an average density of 8.5 inhabitants per km<sup>2</sup>, a very low figure, but twice what it was in 1977 (4.03 inhabitants per km<sup>2</sup>). In fact, national average population density is meaningless in a country like Niger, where two-thirds of the territory is made up of very arid areas that are practically devoid of inhabitants. Human settlement follows certain basic rules such as the availability of resources needed for survival and minimal environmental constraints. These criteria explain the almost total concentration of the population in the southern and western bands of the country, leaving the northern and eastern areas, which are mostly desert, virtually empty. For example, the Agadez region, with 52.7 percent of the total land area of the country, is home to only 2.9 percent of the total population. Similarly, the Diffa region, which takes up 12.4 percent of the total land area, is inhabited by only 3 percent of the Nigerien population. Two-thirds (65.1 percent) of the country's land area is inhabited by only 6 percent of the population, while more than 90 percent of inhabitants are clustered on one-third of the country's land area.

Table 2-1. Expected Dependency Ratios in Niger, 2000–2050

Year	Total Population (thousand)	Population 15–64 years old		Population 0–14 years old		Population 65+ years old		Dependency Ratio
		Number (thousand)	%	Number (thousand)	%	Number (thousand)	%	
2000	10,742	5,031	48.1	5,354	49.8	221	2.1	108
2005	12,873	5,995	47.8	6,468	50.2	253	2.0	109
2010	15,388	7,174	47.8	7,739	50.3	295	1.9	109
2015	18,317	8,625	48.4	9,109	49.7	346	1.9	107
2020	21,731	10,444	49.3	10,573	48.7	431	2.0	103
2025	25,722	12,604	50.3	12,244	47.6	535	2.1	99
2030	30,337	15,123	51.2	14,139	46.6	661	2.2	95
2035	35,521	18,053	52.3	16,134	45.4	821	2.3	91
2040	41,145	21,474	53.7	18,003	43.8	1,030	2.5	86
2045	47,031	25,425	55.7	19,527	41.5	1,301	2.8	79
2050	53,037	29,844	58.0	20,612	38.9	1,637	3.1	72

Source: United Nations, 2002 (medium variant).

<sup>9</sup> Niger counts the population aged 15–59 years for statistical purposes to calculate dependency rates, mainly because the retirement age for government employees is 55 for professionals (or after 30 years of service) and 58 for unskilled workers, and because life expectancy is low. We have used the international standard (population aged 15–64 years) instead, to facilitate comparisons with other countries.

This indicates that, with the current rate of demographic growth resulting in a doubling of the population in 23 years, pressure will be felt mainly in the third of the national territory that is already the most densely populated, making planning and environmental conservation of even greater concern. It is no coincidence that the smallest regions in terms of land area (Dosso and Maradi, with 2.7 percent and 3.3 percent of total land area respectively), which are already home to a third of the population (13.7 percent in Dosso and 20.4 percent in Maradi), are also where the greatest number of conflicts over land either between farmers or between farmers and herders take place. These conflicts are sometimes very violent.

The rapidly increasing concentration of the population in the most hospitable areas, which are already fully populated, poses new planning challenges. More people must be accommodated in areas where bush and fallow land have disappeared, which makes it impossible for new farmers (young people, returning migrants or migrants from other regions) to settle (Guengant and Banoin, 1999). The regional imbalance in terms of human settlement has increased in the past 40 years. Data collected during the General Censuses reveal two phenomena: depopulation of arid and semiarid regions in favor of more hospitable regions, and accelerated urbanization. Table 2.2 shows the trends in demographic weight of the eight regions that make up Niger.

The categorization of regions according to their demographic weight during the period 1977–2001 shows that Maradi, the most populous region in 2001, ranked only third in 1997 behind Zinder and Tahoua. In 2001, Tillabéry, Dosso, Niamey, Diffa, and Agadez maintained their respective initial rankings, fourth to eighth place. The data also show that although the positions of Dosso and the Niamey metropolitan area have not changed, their demographic weight has clearly increased during this period, while Zinder, Tillabéry, and Tahoua saw their relative weights fall by approximately one percentage point. The concentration of the population (Table 2.3) has strengthened in cities and areas friendly to trade. For example, Maradi, the most populous region at the time of the 2001 General Census, is also the region that experienced the highest urban population growth rates.

**Table 2-2. Demographic Trends in Niger by Region, 1977–2001**

Regions <sup>a</sup>	1977 <sup>b</sup>		1988 <sup>c</sup>		2001 <sup>d</sup>	
	Number	%	Number	%	Number	%
Agadez	124,985	2.4	208,828	2.9	313,274	2.9
Diffa	167,382	3.3	189,091	2.6	329,658	3.0
Dosso	693,207	13.6	1,018,895	14.0	1,479,095	13.7
Maradi	949,747	18.6	1,389,433	19.2	2,202,035	20.4
Tahoua	993,615	19.5	1,308,598	18.0	1,908,100	17.7
Tillabéry	928,849	18.2	1,328,283	18.3	1,858,342	17.2
Zinder	1,002,222	19.6	1,411,061	19.5	2,024,898	18.8
Niamey Metro Area	242,973	4.8	397,437	5.5	674,950	6.3
Total Niger	5,102,980	100.0	7,251,626	100.0	10,790,352	100.0

<sup>a</sup> Formerly departments;

<sup>b</sup> General Census, October 15, 1977

<sup>c</sup> General Census, April 27, 1988

<sup>d</sup> General Census (preliminary data), June 1, 2001

Source: Niger, 2002e.

Although the average annual growth rate in the urban population in Maradi (2.83 percent) remained below the national average of 3.60 percent between the 1988 and 2001 censuses, certain localities were particularly attractive—the urban centers of Mayahi, Aguié and Tessaoua, with growth rates of 8.3, 4.97, and 3.54 percent respectively (Table 2.4). Only the Niamey metropolitan area recorded comparable levels of growth, with 4.96 percent in Niamey I and 7.01 percent in Niamey III. Urbanization also accelerated in Agadez (average annual growth rate of 5.66 percent in Arlit and 3.80 percent in Tchirozérine), Diffa (4.24 percent in Diffa

district and 3.89 percent in N'Guigmi district), and Dosso (4.83 percent in Gaya and 4.02 percent in Boboye). In the Tillabéry and Tahoua regions, Kollo and Madaoua districts experienced substantial growth in their urban populations. However, some districts, such as Dakoro, Bouza, Keita, Ouallam, and Tanout experienced very low rates below 2 percent, Bilma was an extreme case where the city actually lost population between 1988 and 2001 (-0.4 percent per year).

This concentration of Nigerien populations near urban centers and areas relatively friendly to agriculture and animal husbandry can be explained by ecological crises, famines, and poverty (Boureima, 1998; Moha, 1996; Motcho Kokou, 1996; Harouna, 2002). Rural populations hope to find a better living by migrating to cities, but in doing so, they add to the social burdens of the municipalities that receive them. Furthermore, the demand for social infrastructure (schools, health services, housing) and sanitation (roads, garbage collection, etc.) is growing while resources become scarcer. Social investments become problematic in a context of scarce or shrunken national resources.



**Table 2.3: Population Trends in Niger by District, 1977–2001**

District	1977	1988	2001
Department of Agadez			
Arlit	25,436	68,979	96,325
Bilma	7,409	8,928	14,115
Tchirozérine	92,140	130,921	202,834
Department of Diffa			
Diffa commune	58,875	76,852	142,522
Maïné Soroa	76,232	83,414	135,911
N'Guigmi	32,275	28,825	51,225
Department of Dosso			
Boboye	140,128	205,923	264,884
Dogondoutchi	213,357	314,607	482,882
Dosso	160,902	246,472	352,413
Gaya	111,166	164,305	247,127
Loga	57,201	87,588	131,789
Department of Maradi			
Aguié	125,097	172,960	273,926
Dakoro	178,107	258,098	429,975
Guidan-Roundji	138,905	210,610	341,833
Madarounfa	186,305	306,216	431,833
Mayahi	167,567	227,812	388,607
Tessaoua	144,482	213,737	335,861
Department of Tahoua			
Abalak	-	-	77,670
Birni N'Koni	175,159	253,879	351,781
Bouza	142,061	180,805	269,549
Illéla	131,744	175,080	256,813
Keita	127,439	159,675	210,368
Madaoua	147,713	214,025	311,055
Tahoua	166,330	240,184	345,851
Tchinta-Baraden	103,169	84,950	85,013
Department of Tillabéry			
Filingué	208,499	285,977	404,086
Kollo	131,145	234,588	316,587
Ouallam	143,431	190,171	280,233
Say	97,486	163,376	229,628
Téra	210,089	295,969	413,850
Tillabéry	138,199	158,202	213,958
Department of Zinder			
Gouré	114,098	162,275	219,802
Magaria	273,005	355,153	485,703
Matameye	114,610	164,107	238,232
Mirriah	351,192	536,695	749,332
Tanout	149,317	192,831	331,829
Niamey Metropolitan Area			
Niamey Commune I	-	-	299,386
Niamey Commune II	-	-	282,382
Niamey Commune III	-	-	93,182
<b>Nd</b>	<b>19,737</b>	<b>-</b>	<b>-</b>
<b>Total</b>	<b>5,102,980</b>	<b>7,251,626</b>	<b>10,790,352</b>

Source: Niger, 2002e.

**Table 2.4: Population Trends of Urban Centers by Department, 1988–2001**

<b>Department and District</b>	<b>1988</b>	<b>2001</b>	<b>Annual Growth Rate (%)</b>
Department of Agadez	89,640	155,685	4.24
Agadez	49,424	76,957	3.41
Arlit	32,272	67,398	5.66
Bilma	2,421	2,300	-0.40
Tchirozérine	5,523	9,030	3.80
Department of Diffa	30,305	48,884	3.68
Diffa	13,387	23,233	4.24
Maïné Soroa	7,381	9,844	2.20
N'Guigmi	9,537	15,807	3.89
Department of Dosso	71,085	116,051	3.80
Boboye	6,239	10,524	4.02
Dogondoutchi	20,407	28,951	2.70
Dosso	25,695	43,293	4.01
Gaya	14,868	27,856	4.83
Loga	3,876	5,427	2.77
Department of Maradi	168,939	244,001	2.83
Maradi	110,005	147,038	2.23
Aguié	5,963	11,384	4.97
Dakoro	14,577	18,551	1.90
Guidan-Roundji	7,020	10,269	3.00
Madarounfa	5,914	8,743	3.01
Mayahi	5,723	16,740	8.30
Tessaoua	19,737	31,276	3.54
Department of Tahoua	119,620	188,171	3.50
Abalak	---	12,343	---
Birni N'Koni	29,034	42,897	3.00
Bouza	5,496	6,825	1.70
Illéla	11,699	15,463	2.20
Keita	6,644	8,306	1.72
Madaoua	11,649	21,749	4.80
Tahoua	49,948	72,446	2.90
Tchinta-Baraden	5,150	8,142	3.52
Department of Tillabéry	48,200	71,767	3.10
Filingué	9,188	11,065	1.43
Kollo	5,755	9,142	3.60
Ouallam	6,229	7,142	1.10
Say	6,338	9,365	3.00
Téra	12,313	18,872	3.29
Tillabéry	8,377	16,181	5.10
Department of Zinder	176,472	249,586	2.72
Zinder	119,827	170,574	2.72
Gouré	8,951	13,308	3.10
Magaria	11,723	17,444	3.10
Matameye	11,151	15,376	2.50
Mirriah	13,225	18,783	2.70
Tanout	11,595	14,101	1.50
Niamey Metropolitan Area	391,876	674,950	4.20
Niamey Commune I	157,172	299,386	4.96
Niamey Commune II	197,222	282,382	2.80
Niamey Commune III	37,482	93,182	7.01
Total	1,096,137	1,749,095	3.60

Source: Niger, 2003b.

### 3. Resources, Economic Performance, and Structural Reform

This chapter examines Niger's resources, focusing on agricultural, animal, and mining resources. It then reviews recent economic performance and structural reforms, before assessing the implementation of the 15-year PRS adopted in 2002.

#### Economic Resources

With real annual income of US\$180 per capita in 2001 (or about FCFA 90,000) and an annual purchasing-power-parity income of US\$880 per capita (or about FCFA 440,000), Niger falls into the category of least-developed countries. It is among the most disadvantaged of even this category, in 197th position (World Bank, 2003c). According to the 2002 Human Development Index, which combines income, education, and health levels of the population, Niger ranked next to last (UNDP, 2002). It is one of the poorest countries in the world.

Since independence, Niger has experienced very slow economic growth because of constraints posed by its physical environment and lack of export resources. The economy, based on agriculture, animal husbandry and limited fishing resources, remained dependent on the amount of precipitation received. Thus, the great drought of the early 1970s greatly set agriculture back and decimated animal herds. However, the effects of this natural catastrophe were partially offset by income from exploitation of uranium mines in the north of the country. Exploitation of uranium deposits beginning in the 1970s increased export earnings and improved the financial standing of the country, which was then able to turn to foreign borrowing. This made possible large investments in social sectors such as health, education, employment, transportation, building and public works, and communications.

This period of growth and prosperity unfortunately did not last long. Beginning in 1980, the current account, balanced until the end of the 1970s, became heavily in deficit. This deficit, which some years reached 10 percent of gross domestic product (GDP), led Nigerien authorities to adopt a macroeconomic stabilization policy in 1983 in agreement with international financial institutions (IMF and World Bank). This policy, regularly maintained until 1991, was suspended by authorities following the National Sovereignty Conference (July 29–November 3, 1991) but resumed beginning in 1994. It consisted of limiting general demand to reduce imports and increasing prices to re-establish conditions for economic growth without excessive foreign trade imbalance. In counterpart to budget assistance from international donors, the national government attempted to limit the salary burden and tax the informal sector. This economic stabilization policy led to a distressing social crisis, ongoing political and institutional instability, withdrawal of the national government from the social sectors, and finally, a decline in purchasing power that hit the most vulnerable segments of the population the hardest.

This unfavorable situation was the main factor in the weak economic growth during 1990–2000, which saw a real average annual growth rate of 1.9 percent, well below the demographic growth rate of 3.1 percent for the same period. This led to the continued decline of per capita GDP and therefore to worsening of poverty. The primary sector, made up predominantly of agriculture and animal husbandry, still employs more than 80 percent of the labor force, but is fragile because agricultural production (mostly the rain-fed grains millet and sorghum) and animal production are dependent on the amount and regularity of rain. From independence until the 1990s, the country experienced a significant increase in rain-fed grain production, however this has slowed in the past decade.

Besides grain (millet, sorghum, and secondarily, corn, rice, wheat, and fonio), numerous income-producing fruit and vegetable crops are grown. They include garlic, groundnuts, sugar

cane, cotton, bean, manioc, onion, sorrel, galingale, and tobacco. Fruit and vegetable crops include tomatoes, sweet potato, pepper, and various types of citrus. The cultivation of some of these crops (groundnuts and onion) is longstanding, while others (galingale) are more recent. The importance of these various kinds of agricultural crops is difficult to calculate because of a lack of data, but it is modest compared to millet and sorghum. Furthermore, after strong increases between 1960 and 1980, the quantities of these diverse crops diminished, more or less severely, during the 1990s. This is particularly true of groundnuts, Niger's main income-producing crop, which during the 1960s made up 45 percent of fiscal revenue. Groundnut production reached 261,100 tons in 1980, but only 17,500 tons in 1990 (or 8 percent of the 1980 output). Groundnuts also formed the basis of the first corporation for marketing agricultural products, SONARA. After the groundnut-marketing corporation, the cotton-marketing corporation, the Nigerien Textile Corporation,<sup>10</sup> was created, but it would come to rely heavily on imports of raw material because of a drastic decline in national cotton production.

The difficulties experienced with income-producing crops beginning in the 1980s are due principally to two factors: the decline in prices for these products in international or regional markets (in Nigeria especially) and the reorientation of national agricultural policy towards subsistence crops. These combined effects led to a drop in investment in income-producing crops, and consequently to a decline in production. The new agricultural policy aiming at food self-sufficiency emphasized modernizing production tools, training farmers in the use of modern production methods, improving agricultural inputs and the selection of seeds adapted to Sahelian climatic conditions, and putting new arable land into production. These efforts aimed to minimize the effects of declining and irregular precipitation on grain production. Unfortunately, the national government was unable to pursue the modernization of the agricultural sector that it had begun because of decreased mining revenue and the weight of the loans that it had taken out beginning in 1982. Grain production increased, but not sufficiently to keep pace with growing needs. The grain deficit deepened while needs rose—a direct result of accelerated population growth. Figure 3.1 illustrates this trend and highlights the declines in grain production output and grain production per capita beginning in 1970. Between 1961 and 2001, the population grew 3.1 percent per year on average, while during the same period, grain output and per capita grain production declined on average by 0.6 percent and 0.4 percent a year respectively. This means that the population—and therefore its needs—multiplied 3.4 times between 1961 and 2001. But during the same period, grain output declined 20 percent, and grain production per capita declined 10 percent. Such trends are of great concern for a sector that is the main—or the only—source of income for more than 80 percent of the population.

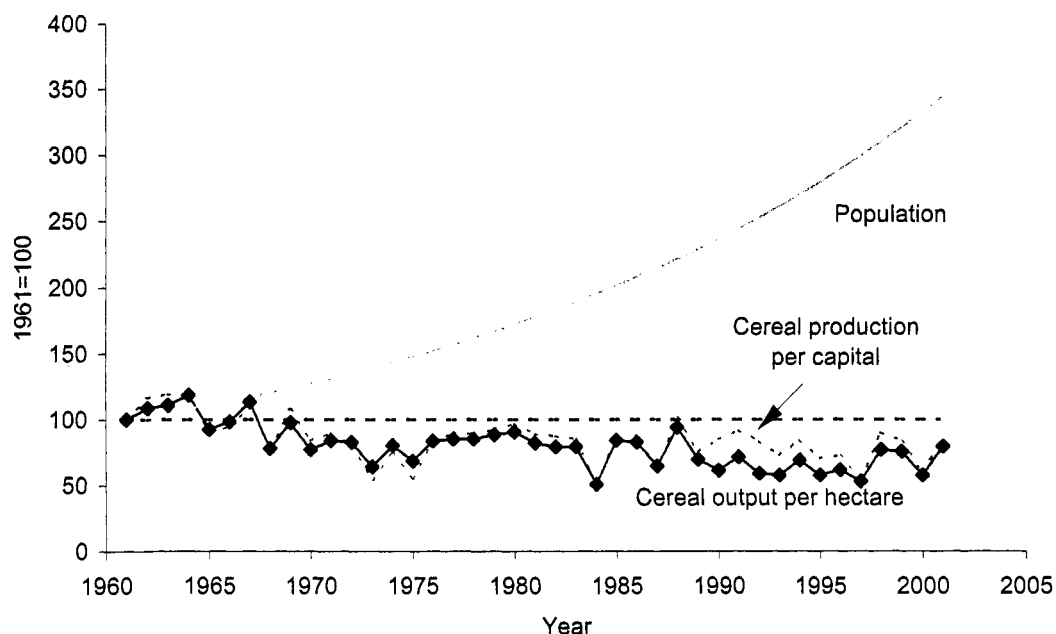
Before mining resources began to be exploited, animal resources made the second-largest contribution to the Nigerien economy. To gain a better understanding of the changing role of these resources in the past 40 years, this study calculated the volume of livestock per unit of tropical cattle<sup>11</sup> for each period. These calculations show an increase from 1960 to 1970, then a decrease in the subsequent decades, a result of the drought of the early 1970s and, more generally, of the decrease in precipitation that negatively affected the quantity and quality of available pastureland. In 1990, the decline was 28 percent compared to 1960 levels and 39 percent compared to 1970 levels. This has affected export revenue from animals, meat, leather, and skins, which had a large share of the Nigerien economy and, through taxation, of the national budget.

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<sup>10</sup> Société nigérienne des textiles.

<sup>11</sup> A unit of tropical cattle is defined as the equivalent of an animal of 250 kg living in a tropical area.

**Figure 3-1. Increase of population, and trends of cereal output per hectare and cereal production per capital, 1961–2001 (1961 = 100)**



Source: FAOSTAT (<http://apps.fao.org/>).

The contribution of the secondary sector to GDP comes mostly from resources from the exploitation of uranium, which began in 1971. In 1980, Niger accounted for 10 percent of world production of uranium. At that time, mining revenue contributed the largest share of the investment budget in the social sectors. The quantity of uranium produced and sold increased rapidly between 1973 and 1981, but shrinking foreign demand then led to a decline in production, which reached only 3,000 tons a year in the 1990s. This decline was due to nuclear energy's poor public image, the end of nuclear-plant construction programs, and the glut of uranium on the world market.

As noted in the PRSP, the structure of GDP in the past ten years has been dominated by the tertiary sector, which has a high prevalence of barter. This component has been established at an average of 45.2 percent of GDP (World Bank, 2002b). The number of informal actors in the tertiary sector has also increased: the share of the informal sector in the national economy was estimated at 70.8 percent in 1990 and at 74.2 percent in 2000. The size of the informal sector is the reason for enormous shortfalls in tax revenue, which leaves the national government without the resources that it badly needs to finance its operating and investment budgets. The average annual investment rate—11 percent between 1990 and 2000—falls significantly (25–30 percent) below the standards accepted for developing countries such as Niger. The share of the national budget allocated to public investment has fallen in the past few years due to the poor performance of the national economy and the scarcity of international financing resulting from the country's political instability. The national government's revenues shrunk severely in the early 1990s, but the corresponding financial hemorrhaging was staunch in 1994. The tax base remains very small, however, compared to the threshold of 17 percent of GDP recommended by the West African Economic and Monetary Union (WAEMU) (World Bank, 2003a).

The increase in investment needs resulting from the rapid population growth and the low level of internal resource mobilization explain the country's heavy dependency on foreign aid to finance its national investment program. Foreign support for the national investment program,

made up of grants and international loans, represented approximately 30 percent of total budget resources during the period 1990–2000 (Niger, 2002c, p. 52).

## **Recent Economic Performance and Structural Reform**

Free, multiparty elections in December 1999 marked the return of political stability in Niger after 12 years of significant unrest. In this context Niger has attempted to reestablish macroeconomic stability and has launched several structural reforms since 2000.

### *Macroeconomic Stabilization*

Execution of the IMF program funded by the Poverty Reduction and Growth Facility (PRGF), over the period 2000–2003, has been mostly positive: the fifth review was completed and found Niger's macroeconomic performance generally satisfactory. Economic growth was positive in 2001 and 2002 (7.1 percent and 3 percent respectively) after two years of recession. This growth can be attributed mainly to pluviometric conditions that were favorable for agricultural production and to improvement in the management of public finances. In addition, annual inflation was kept to 2.7 percent in 2002.

Regarding public finances, budget revenue increased from 8.6 percent of GDP in 2000 to 10.6 percent in 2002, while expenditures decreased from 12.5 percent of GDP in 1999 to 11 percent of GDP in 2002. These trends resulted in improved fiscal balances, with the basic fiscal balance reduced from –4.8 percent of GDP in 1999 to –1.8 percent in 2002.

Despite regional conditions affected by the crisis in Côte d'Ivoire, Niger's performance during the second half of 2003 was remarkable, as noted in the fifth review of the IMF's PRGF program. Economic growth is estimated at 4 percent; annual inflation is expected to be contained below 3 percent; and the current account deficit, not including grants for budgetary assistance, is at 8.5 percent. Most of the criteria for the IMF and World Bank assistance program have therefore been met. In fact, all the conditions relating to the basic fiscal deficit, the government's net position, reduction of domestic debt, maintenance of timely foreign debt payments, foreign debt, targets for the wage bill, and tax revenue have been met.

### *Structural Reforms*

Three major public finance reforms were launched: development of new budget terminology in accordance with WAEMU directives; adoption of a new government accounting system; and the computerization of the expenditure chain, with the development of a new computer program for accounting management. This automation will help integrate the budgeting process and make it possible to access information in real time. A new law published in June 2002 addresses public markets, and enforcement regulations are being drawn up.

The Privatization and Regulatory Reform project, signed September 30, 1998 with the World Bank (for US\$18 million), is in the process of implementation. The Niger Milk Bureau,<sup>12</sup> the Nigerien Cement Corporation,<sup>13</sup> the Nigerien Textile Corporation, and the Nigerien Telecommunications Corporation and its subsidiary Sahel Com have been privatized under this program. Two cellular telephone licenses using the GSM standard were granted to Telecel and Celtel Niger, and a 10-year lease was signed in January 2001 with the National Water Corporation<sup>14</sup> for the production, transport, and distribution of drinking water. The Public Works Equipment Rental Corporation<sup>15</sup> was also privatized in December 2002. However, privatization of the Nigerien Petroleum Products Corporation<sup>16</sup> and the Nigerien Electric Corporation<sup>17</sup> has been delayed.

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<sup>12</sup> Office du Lait du Niger

<sup>13</sup> Société nigérienne de cimenterie

<sup>14</sup> Société nationale des eaux

<sup>15</sup> Société de location du matériel des travaux publics

<sup>16</sup> Société nigérienne des produits pétroliers

<sup>17</sup> Société nigérienne d'électricité

Financial reforms include (i) bringing national laws in line with the directives of the Organization for the Harmonization of Business Law in Africa (OHADA<sup>18</sup>) within the framework of judicial reform; (ii) restructuring the national post office and savings bank by reorganizing the post office and creating a subsidiary for the provision of financial services; (iii) restructuring commercial banks with the participation of the national government (restructuring of the Commercial Bank of Niger<sup>19</sup>), the Credit Bank of Niger,<sup>20</sup> the Lending Fund for Local Governments,<sup>21</sup> and the Islamic Bank of Niger for Trade and Investment<sup>22</sup>; (iv) an actuarial audit of the National Social Security Bank<sup>23</sup>; and (v) reform of the insurance sector. Furthermore, a multi-donor microfinance project (with the International Fund for Agricultural Development and French Cooperation) is ongoing. The International Development Association (IDA) also provides technical assistance for microfinance in Niger.

### *Poverty Reduction Strategy*

Niger adopted the PRS in January 2002. As the strategy covers a 15-year period, it is too early to assess its success. The adoption of the PRS in Niger is the result of a participatory process that involved all social levels and national development actors, as well as the international development community, including the IMF and the World Bank. This document, which serves as a strategic anchor for all economic and social policies of the Niger government, was endorsed by the IMF and World Bank boards of directors.

The PRS focuses on four major strategic themes: (1) sustainable and sustained economic growth, based on the application of economic and financial policies aimed at macroeconomic stability; (2) development of productive sectors; (3) development of basic social services; and (4) promotion of good governance, strengthening of human and institutional capacities, and decentralization.

The development of productive sectors aims to ensure strong, sustained economic growth and the generation of income, with an emphasis on the rural sector (agriculture and animal husbandry). The goal of developing basic social services is to reduce poverty by improving income distribution in favor of the poor. The fourth strategic theme emphasizes improvement of human resources and political, administrative, economic, and local governance.

The assessment of the first year of PRS implementation in Niger—clearly limited—is positive. Macroeconomic stability was achieved despite a difficult regional economic environment marked by the Ivorian crisis. However, significant challenges remain.

Important structural reforms have been carried out in public finances, with the national government withdrawing from the productive arena and improving the regulatory framework for public markets and to encourage private initiative. Other reforms have also been accomplished, to a lesser degree, in the financial sector and public service.

As part of the policy to expand productive sectors, a rural development strategy was formulated in 2001. The objective of the strategy is to reduce the incidence of rural poverty from 66 percent to 52 percent by 2015. The strategy emphasizes agricultural development, water resources and the environment, as well as the development of animal resources and the improvement of the road network and transport. The construction of 46 mini-dams and 42 catchments areas are among the concrete accomplishments of the past year. In the transport sector, the road between Niamey and Dosso was rehabilitated, and work is ongoing to repair the road between Niamey and the border with Burkina Faso, as well as the Agadez–Zinder road. In addition, a national transport program was formulated and a road transport strategy defined. In

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<sup>18</sup> Organisation pour l'harmonisation du droit des affaires en Africa

<sup>19</sup> Banque commerciale du Niger

<sup>20</sup> Crédit du Niger

<sup>21</sup> Caisse de prêts aux collectivités territoriales

<sup>22</sup> Banque islamique du Niger pour le commerce et l'investissement

<sup>23</sup> Caisse nationale de sécurité sociale

October 2002 the productive sector development strategy resulted in the formulation of a national tourism policy and the promotion of new technologies, which relies on the private sector's attraction to telecommunications and mobile telephony.

Social sectors have recorded various accomplishments. In education, the Niger government emphasized a policy of easing supply constraints. Thus, 1,830 additional classrooms were built, and 2,773 "voluntary" teachers were recruited. Official figures state that the basic rate of primary school enrollment increased from 37.3 percent in 2001 to 41.7 percent in 2002 (surpassing the objective of 40 percent, although these figures probably underestimate the number of school-age children). At the same time, official figures claim an increase in primary school enrollment in rural areas, from 32 percent in 2001 to 38.1 percent in 2002. They also claim higher rates for girls' school enrollment, from 29.6 percent in 2001 to 33.3 percent in 2002. Furthermore, the government made efforts to improve literacy, opening 474 literacy centers. In the health sector, achievements are more limited. The government adopted the "Strategic Directions for Health Development, 2001–2011" document in May 2002 (Niger, 2002a). However, available health indicators show results that either fall short of objectives or those are worse than in 2001. For example, the measles immunization rate declined from 52.7 percent in 2001 to 48 percent in 2002, and the DTP3 immunization rate declined from 31 percent to 22 percent. Niger, however, is noteworthy for having the lowest HIV/AIDS rate in Sub-Saharan Africa, at 87 percent of the adult population (CERMES, 2002).

In terms of governance, concrete accomplishments include the implementation of the Judicial Reform Support Program, the strengthening of a pilot program for collecting illegal small-caliber guns, and the launch of a national conflict-prevention and conflict-management strategy. Decentralization achievements include the formulation and publishing of basic laws that Nigerien strengthen the legal and regulatory framework. The Development Analysis and Forecasting Unit was created in October 2001 to enhance human and institutional capacity, a project to support public enterprise reform and a program to reinvigorate government administration were started.

Severe constraints hamper the implementation of the PRS, however, and are likely to limit its success. These constraints include:

- The population growth rate which at 3.1 percent, one of the highest in the world, limits the accumulation of per capita wealth;
- The volatility of economic growth, which depends, through income from the agricultural sector, on sufficient rainfall. Indeed, the strong growth recorded in 1998 and 2001, 10 percent and 7.1 percent respectively, is due to good harvests achieved as a result of exceptionally abundant rainfall. In 2002, growth was limited to a more modest 3 percent, which is insufficient to reduce poverty significantly;
- Limited mechanisms and tools for evaluating and monitoring poverty. Poverty data are produced and disseminated irregularly. The last national budget-consumption survey dates back to 1992–93, although a report on poverty monitoring and evaluation was drafted in 2002; and
- Limited administrative, human, and institutional capacity.

Attaining PRS objectives will require meeting challenges and setting priorities in the following five areas: (1) adoption of a real population policy and reproductive health strategy; (2) carrying out a new budget-consumption survey to update poverty analysis; (3) finalization of the ongoing study on sources of growth and using the study to define an economic policy that will generate strong, sustained, poverty-reducing growth; (4) integration of projects financed by HIPC initiative funds with sector strategies; and (5) preparation of Nigerien authorities to adopt a programmatic approach to budgetary assistance.



## **4. Demographic Constraints on Poverty Alleviation**

Poverty reduction efforts in Niger were formalized in 2002 with the adoption of the PRS. This chapter briefly summarizes the objectives of the PRS and the Special Program of the President of the Republic, and then reviews the challenges to alleviating poverty associated with demographic constraints. These constraints are examined in three key areas: food security, education for all, and total health and vaccination coverage. The chapter touches on the social effects of demographic growth, with the increase of at-risk social groups, the deterioration of the conditions for access to modern employment, inadequacy of rural household income, and the relationship between droughts, migration, and insecurity. The chapter ends with consideration of the synergies between poverty alleviation efforts and population and reproductive health activities.

### **Poverty Reduction Strategy Paper**

At the end of the 1990s the Government of Niger committed to making sustainable human development and poverty reduction the two main themes of its economic and social development policy, and dedicated itself to improving the living conditions of its population and to fighting poverty. Based on the findings of the budget-consumption survey, whose urban phase took place in 1989/90 and rural phase in 1992/93, it is estimated that poverty affects nearly 63 percent of the population, a percentage that reduces the chances for successful sustainable economic development in Niger. In response to the HIPC Initiative, the government prepared a PRS for the country in 2002. A consultative process involving concerned population groups drove the preparation of this document, in parallel with specific analysis carried out under the aegis of a permanent PRS secretariat that is part of the prime minister's office. The priority objectives of the PRS are to: (1) promote sustainable and sustained economic growth; (2) develop the productive sectors; (3) improve poor people's access to basic social services; and (4) strengthen human and institutional capacities while promoting good governance and decentralization. The president's special program, which plans the construction of 1,000 classrooms, 1,000 health clinics, 100 watering places (or wells) and 100 mini-dams, is intended to supplement PRS efforts.

Rapid population growth will always be a major challenge for any poverty reduction program. Such population growth creates high social demands, especially in health and education. Financing requirements to address the population increase necessarily compete with the demand for facilities, infrastructure, support to productive sectors, etc., but also with the obligation to make up for existing deficiencies in education and health systems. In fact, those participating in the process of drafting the PRS identified population growth as the primary challenge to sustainable development. Logically, therefore, the PRS would have been expected to include strategies and programs to regulate population growth, particularly information, education, and communication (IEC), and behavior change communication (BCC) activities, as well as measures aimed at improving access to reproductive health and family planning services to motivate more couples to regulate their fertility. But this is not the case, at least at present. However, since the PRS is a participatory process, it is open to amendment and modification.

The objectives of the National Population Policy adopted by Niger in 1992 were to reduce population growth and bring it into line with available economic resources (Niger, 1992, 1994a, 1996b and 1999c). However, despite the commitment of the government and a few partners to implement it at that time, the results were hardly satisfactory. In part, this was because the content of the awareness-raising messages was inappropriate for the Nigerien context; education levels were low; health coverage insufficient (for reproductive health and family planning services specifically); and sensitizing a very poor and uneducated population difficult. The Nigerien political leadership's growing lack of interest in population questions

after 1994, in what was certainly a troubled national political environment, compounded these problems (Niger, 1996b, 2000c, 2002a, 2002b, 2002c and 2002h).

Although it did apply some lessons learned from implementation of the National Population Policy, the PRS, in its proposed strategies, does not emphasize the high-priority nature of the population problem, as it does education and health issues, despite the fact that population growth was the first challenge identified. The priority actions selected for population questions fall under HIV/AIDS prevention: (1) expansion of human resources by strengthening their technical capabilities to implement population activities; (2) introduction of a system of public awareness campaigns about the relationship between population and development; and (3) support to studies and research on population and health. However, poverty alleviation will inevitably require population reduction and therefore a decline in fertility (Merrick, 2002).

What is more, the demographic assumptions made in the PRS seem much too optimistic and do not in any way reflect the country's situation as indicated by recent data and analysis. In fact, the trends presented in the PRSP—a reduction from 7.5 children per woman in 2000 to 5.5 children in 2005 and to 4.1 children in 2010, and an increase in life expectancy at birth from 48 years in 2000 to 50 years in 2005, and to 60 years in 2015—are so optimistic that they have never been achieved, to our knowledge, in any other country. Not only do these assumptions contradict the most optimistic assumptions made for Niger and other African countries, especially by the Population Division of the United Nations, but they are also completely unrealistic and not credible.

### **Nutrition and Food Security**

Malnutrition levels are extremely high in Niger (World Bank, 1996; Macro International Inc., 1993, 1999a and 1999b; USAID, 1998). Niger's malnutrition figures, whether for stunting,<sup>24</sup> wasting,<sup>25</sup> or underweight,<sup>26</sup> are alarming (Table 4.1). Among six West African countries studied, Niger has the highest rates of chronic malnutrition, acute malnutrition, and underweight. During the 1990s, chronic malnutrition increased in almost all the six countries; however, acute malnutrition and underweight appeared to remain at the same levels, or even to have declined, in almost all countries but Niger. Acute malnutrition, which affects 21 percent of Nigerien children, is generally caused by recurring infectious diseases as well as by food insecurity. It often leads to chronic malnutrition, with debilitating life-long consequences. Taken together, these figures reveal the difficulties that the country faces in terms of nutrition—difficulties linked to continuing food insecurity (World Bank, 1996). This raises issues of agricultural production.

Land settlement in Niger depends on several factors, including the fertility of the soil, the amount of precipitation, and the availability of land to meet the need to expand cultivation and carry out commercial activities. This means that villages are first established near dune areas that are easier to cultivate, and sources of water to meet human, crop, and livestock needs. During the 20th century, the need to increase grain production to feed a rapidly growing population led to significant expansion of the land area under cultivation and to the establishment of many new villages. Research in the department of Maradi (Reynault, 1997) illustrates settlement expansion trends in the central and western parts of Niger, where nearly the entire population of the country is now concentrated. These studies show that 80 percent of the villages in this region were founded during the 20th century. This increased use of land is the direct consequence of the country's rapid population growth. It was accompanied by the exploitation of less fertile land as well as by the shortening (or even abandoning) of the practice of letting land lie fallow, a traditional mechanism for restoring soil fertility, which resulted in reduced fertility and environmental degradation (Reynault, 1997 and 1998). Demographic pressure and the proliferation of villages have also led to population saturation in many arable areas, which has been the source of land conflicts.

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<sup>24</sup> Stunting is caused by chronic malnutrition and is calculated by comparing height to age.

<sup>25</sup> Wasting is due to acute malnutrition, and is calculated by comparing height to weight.

<sup>26</sup> Underweight is calculated by comparing weight to age.

**Table 4-1. Malnutrition in Children under Five in Niger and Other Sub-Saharan Countries  
(% of Children Affected)**

Country	Survey Years	Chronic Malnutrition <sup>a</sup>		Acute Malnutrition <sup>b</sup>		Underweight <sup>c</sup>	
		First Survey	Second Survey	First Survey	Second Survey	First Survey	Second Survey
Benin	1996, 2001	25	31	14.0	7.5	29	23
Burkina Faso	1993, 1999	33	37	13.0	13.0	33	34
Côte d'Ivoire	1994, 1998	24	25	8.3	8.0	24	21
Ghana	1994, 1999	26	26	11.0	n. a.	27	25
Mali	1987, 2001	24	38	11.0	10.0	31	33
Niger	1992, 1998	32	41	16.0	21.0	36	50

<sup>a</sup> Height/age ratio of less than -2 standard deviations

<sup>b</sup> Weight/height ratio of less than -2 standard deviations

<sup>c</sup> Weight/age ratio of less than -2 standard deviations

n. a. —not available

Source: DHS.

Extensive rain-fed agriculture, which is still the dominant system of production, remains dependent on the amount and regularity of rainfall. It contributes more than 95 percent of the country's food production, but can be practiced only on the 12 percent of the territory that receives at least 300–400 mm of precipitation during the brief rainy season that is characteristic of the Sahelian climate (3 to 4 months). Even there, the first rains must start at the right time and then be sufficiently regular in time and space to ensure proper maturation of millet and sorghum and yield a harvest commensurate with farmers' efforts. During these three to four months of the rainy season Nigeriens produce the bulk of the foodstuffs that they live on for the rest of the year.

Precipitation varies, of course, from one region to another. The far southern part of the country receives the most rain, 700 mm a year on average (isohyet of 700 mm), but this makes up only 1 percent of the national territory. Furthermore, less than 300–400 mm of rainfall (that is, below the 300–400 mm isohyet) is not sufficient for rain-fed agriculture. In addition, extensive animal husbandry is still possible on a fraction of the territory—about 12 percent—but in the Saharan desert that covers three-fourths of the country, no agricultural or pastoral activity is possible except in oases.

Rain-fed agriculture and livestock grazing, which traditionally made the most of these very challenging pluviometric conditions, are now in a state of crisis because of continual population growth throughout the 20th century. This growth has led to population densities that are incompatible with extensive agriculture and livestock grazing. Some authors indicate that in Sahelian environments with traditional extensive agrarian systems dominated by rain-fed agriculture, agricultural lands deteriorate rapidly when population densities rise above 15 inhabitants per km<sup>2</sup> (World Bank, 1985). This means that once this threshold is crossed, the existing traditional agrarian systems must be replaced by intensive agriculture, without which the quality of the soil deteriorates, permanently jeopardizing agricultural activities. Despite current high population densities in central and western Niger, no widespread major process for transforming agrarian systems is being undertaken, although transformation is in the works on a few properties.

In the 1950s and 1960s, none of the seven departments in Niger (now called regions) had a density higher than this threshold of 15 inhabitants per km<sup>2</sup>. Today, however, if the preliminary 2001 General Census findings are accurate, the departments of Maradi and Dosso greatly exceed this threshold, with densities of 53 and 44 inhabitants per km<sup>2</sup>, respectively. The departments of Tillabéry and Tahoua have also crossed the threshold, with densities of 19 and 17 inhabitants per km<sup>2</sup> respectively, and Zinder is close to it with 13 inhabitants per km<sup>2</sup>. These five departments are home to 94 percent of the country's population.

Preliminary findings of the 2001 General Census show that of the 36 districts in the country (besides the Niamey metropolitan area), 27 attained densities of more than

15 inhabitants per km<sup>2</sup> in 2001. The others are in arid areas where the human load compatible with extensive agro-pastoral activity is below 15 inhabitants per km<sup>2</sup>: three districts in Agadez, two or three districts in Diffa, and five in the north, in the departments of Zinder (two districts), Tahoua (two districts), and Tillabéry (one district). Preliminary census findings also indicate that in 2001 two districts had densities of 100 inhabitants per km<sup>2</sup> or higher: Madarounfa (115 inhabitants per km<sup>2</sup>), located in Maradi; and Matameye (100 inhabitants per km<sup>2</sup>), located in Zinder.

10 districts fell into the next category, with densities of between 50 and 100 inhabitants per km<sup>2</sup>:

- Four in Maradi—Aguié, with 91 habitants per km<sup>2</sup>; Guidan-Roundji, with 69 habitants per km<sup>2</sup>; Tessaoua, with 61 inhabitants per km<sup>2</sup>, and Mayahi, with 56 inhabitants per km<sup>2</sup>;
- Three in Tahoua—Bouza, with 71 inhabitants per km<sup>2</sup>; Birni N’Koni, with 66 inhabitants per km<sup>2</sup>, and Madaoua, with 64 inhabitants per km<sup>2</sup>;
- One in Zinder—Magaria, with 58 inhabitants per km<sup>2</sup>; and
- Two in Dosso—Gaya, with 56 inhabitants per km<sup>2</sup>; and Boboye, with 55 inhabitants per km<sup>2</sup> (Niger, 2003b).

These figures clearly show the extent of growing population density in areas of rain-fed cultivation—central and western Niger. Again, the anthropic pressure that these densities place on fragile ecosystems poses problems—lack of sustainability of current agrarian systems and environmental degradation. Unfortunately, the government’s efforts to encourage farmers to change their traditional agrarian systems by adopting more effective technical systems did not meet with much success. In 1983, with the implementation of the first structural adjustment program the Nigerien government stopped promoting compost manufacture and subsidizing the acquisition of agricultural inputs. It also had to interrupt its activities promoting agricultural equipment.<sup>27</sup> With the cost of mineral fertilizer and the acquisition of tools for agricultural production exceeding the financial capacities of rural producers, the achievements obtained during the 1970s and early 1980s have largely been lost (Niger, 1994b, 1998, 1999a, and 2002e).

Irrigated farming is another means of increasing agricultural production and productivity through the control of water. Potentially irrigable land is estimated at 332,000 hectares. Unfortunately, today only 13,000 hectares are put to this use, despite the combined efforts of the national government and its development partners to implement various hydro-agricultural devices and build mini-dams and water retainers to help farmers’ cooperatives make the most of irrigable land that is suitable for intensive agriculture (World Bank, 2000a). As part of poverty alleviation efforts, some financing made available for debt reduction through the HIPC Initiative currently goes for the construction each year of 1,000 classrooms, 1,000 health clinics, 100 watering place (or wells), and 100 mini-dams (Special Program of the President, which began in 2001). However, the future of the mini-dams is unclear, due to the condition of existing infrastructure, difficulties in organizing farmers, and lack of transparency in the management of irrigated spaces. A declining number of new hydro-agricultural mechanisms are being built, and rehabilitation of existing infrastructure has suffered from a lack of financing for 20 years.

### **Education for All**

In Niger, the illiteracy rate (in French) is 87.5 percent for the population over age 10. Women are more likely to be illiterate than men. For example, in 1998, the basic rate of primary school enrollment for girls (7 to 12 years old) was 21 percent, compared to 31 percent for boys, and 26 percent for both sexes (DHS, 1998). Besides the differential access at enrollment, girls

<sup>27</sup> The national government was unable to continue financing farmers’ training or workshops producing farming equipment (undercarriage constructions, ploughs, stops, seeders, ox-and donkey-drawn carts and hoes, etc.). Agricultural equipment production fell from 25,000 units in 1981 to 1,103 in 1990. As for harnessing equipment, unit production declined from 24,725 in 1970 to only 1,129 in 1990 (Guengant and Banoin, 2002).

also experience higher dropout rates because of marriage and subsequent pregnancy. Although the law does not prohibit pregnant girls from pursuing schooling (in the second half of secondary school), the social environment is not always favorable to keeping pregnant girls in school. Furthermore, school-leaving mostly affects lower-income populations that do not have the means to enroll their children in private schools.

At the national level, during the past 10 years performance indicators such as the teacher-to-pupil ratio or the number of pupils per class have been recorded. This has not always been the case in urban areas and highly populated regions. In 1998, the Minister of National Education<sup>28</sup> recorded an average of 54 pupils per teacher and 60 pupils per class in public primary schools in Niamey, and 38 pupils per teacher and 40 pupils per class at the national level. In demographically concentrated areas (such as the city of Niamey), children do not have access to education for the entire school year because the system is forced to double-up the use of facilities. This system, called “double flux”, does not promote highly effective teaching, but it does give access to basic education to the greatest number of children. The 1998 Human Development Report (UNDP, 1998) highlighted the reduced internal effectiveness of the education system, which results in a very high rate of repeat pupils, low rates of success in exams, and a high rate dropout rate that puts 40 percent of children enrolled in school in the street. Thus, out of 100 pupils who start primary school, only 30 will obtain a school certificate (Niger, 2000a).

### *School-age Population Trends*

According to demographic projections based on the latest known fertility and mortality rates (Guengant and Banoïn, 2002), the school-age population will undergo extremely rapid growth in the coming years. Estimated at 359,000 in 2000, the number of children reaching school age (6–7 years old) will grow by an average of 18,000 additional children a year at current rates of fertility and mortality. The annual demand for new enrollments in the first year of primary school will therefore increase to 538,000 in 2010, 812,000 in 2020, and more than 3 million in 2050 (eight times more than today).

The total number of children aged 6 to 12 years who must attend primary school is expected to increase from 2.2 million in 2000 to 3.3 million in 2010 and 4.5–5 million in 2020, depending on the date when fertility decline begins and on its speed. Even if fertility decreased from 7.5 to 3 children per woman by 2050, the demand for schooling will not ease before 2020. However in 2050, assuming 3 children per woman, the number of children who need education could be five times lower than if fertility does not change. This means that a reduction in fertility to 3 children per woman would enable the number of children to be educated after 2020 to stabilize at about 4–5 million. Nonetheless, this is twice the current figure.

Under any circumstances, the number of children to be educated in primary school can be expected to double by 2020. To handle this increase, great efforts are needed to construct school infrastructure, purchase teaching material, and recruit teachers, otherwise general conditions in the education sector can be expected to deteriorate. Merely meeting the additional demand linked to annual average population growth (18,000 primary school-age children), and maintaining the ratios of 40 pupils per class and 38 pupils per teacher, will require finding 450 additional classrooms and 473 additional teachers per year beyond current levels. Yet in the past decade, the number of primary schools created each year has grown by only 250 to 300. And during the 1996–1998 period, the number of primary classrooms actually decreased—from 11,637 to 11,304. This deterioration was explained by a lack of upkeep and personnel in some schools (Niger, 2000a).

However, the addition of classrooms in existing schools simply enables coverage of the required six primary years. In reality, only 1,041 of the country’s 4,112 primary schools offer the entire primary school cycle. Some schools have only one classroom and one teacher, despite the fact that teaching students in all six primary school years requires a minimum of three

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<sup>28</sup> This term in fact applies to the Ministry of Basic Education and Literacy, and the Ministry of Secondary Schools, and Higher Learning, Research, and Technology.

classrooms and three teachers. During these six years of fundamental training, new pupils cannot be accepted because of a lack of personnel and infrastructure. Although the Nigerien education system must meet the demand for a complete primary cycle, it must also expand throughout the entire country to cover underserved localities.

### *Education Supply Trends*

The school census carried out in March 2000 counted 4,531 schools, 16,445 classrooms, and 19,385 teachers, for a total of 694,989 students enrolled in preschool, primary, secondary, technical, and professional education. Primary education alone accounts for 4,112 of these schools, 13,460 classrooms, and 14,249 teachers, for a total enrollment of 579,486; secondary enrollment numbers only 18,049 students, with 3,995 students enrolled in technical and professional schools, and 1,368 students enrolled in teacher and assistant-teacher training schools. Very few—10,360—children go to preschool. The dropout rate increases significantly with the education level.

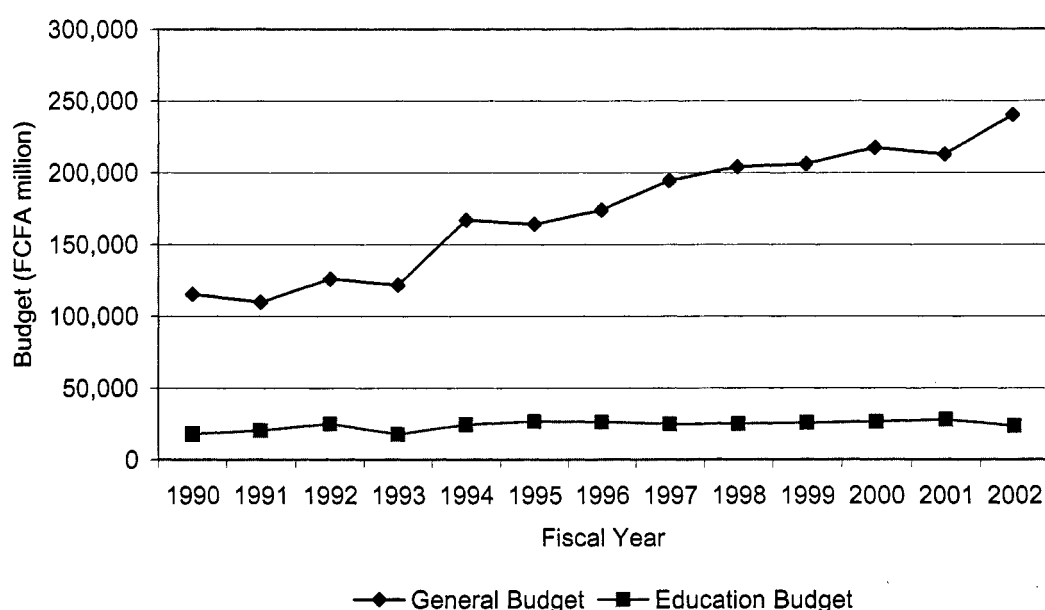
Contrary to the very rapid growth in demand for schooling, the share of the national budget allocated to the education sector declined during the past 10 years. Table 4.2 and Figure 4.1 show education budget trends between 1990 and 1998. Operating expenditures declined between 1990 and 1992, as did capital expenditures until 1993. Public investment in education did not return to 1990 levels—already very low (FCFA 1 billion, or about US\$2 million)—until 1995. Most of the budget allocated to education is for operating expenses—82 percent in 1998 and 89 percent in 1990. As a result, construction of new school structures has slowed and in most cases resources allocated to capital investments have gone to maintaining existing structures. The budget-allocation process, which is unfavorable to social sectors, has resulted in quantitatively and qualitatively inadequate school facilities; a chronic lack of textbooks, supplies, basic equipment, documentation, and other teaching tools; and recommended limitations on the recruitment of teachers. Despite a doubling of the number of primary schools during the period 1990–2000, supply remains far below demand.

**Table 4-2. National Government and Ministry of Education Budgets, 1990–2002**

<b>Fiscal Year</b>	<b>General Budget (FCFA million)</b>	<b>Education Budget (FCFA million)</b>	<b>Share of Education in General Budget (%)</b>
1990	115,176	17,916	15.6
1991	109,610	20,354	18.6
1992	125,900	25,075	19.9
1993	121,600	17,851	14.7
1994	166,800	24,376	14.6
1995	163,718	26,776	16.4
1996	173,942	26,387	15.2
1997	194,405	24,848	12.8
1998	204,031	25,037	12.3
1999	205,909	25,756	12.5
2000	217,282	26,435	12.2
2001	212,625	28,044	13.2
2002	240,178	23,582	9.8

*Source: Statistical Yearbook 2001-02 (Niger, 2002i).*

Figure 4-1. National Government and Ministry of Education Budgets, 1990–2002



Source: Statistical Yearbook 2001-02 (Niger, 2002i).

### Education for All?

Data collected during the second DHS (1998) show that only 15.3 percent of the female population had attended primary school or higher and therefore that 84.7 percent of women have never gone to school. These proportions were 11.4 and 88.6 percent respectively in 1992. Also according to the 1992 DHS, only one woman out of 10 living in rural areas had been to school, compared to three out of 10 in secondary cities, and five out of 10 in Niamey. These proportions were slightly higher in 1998. Table 4.3 shows the proportions of educated women in 1992 and 1998, according to where they lived at the time of the two surveys.

Table 4-3. Education Levels for Females, 1992 and 1998

Year	City	None	Primary	1st Cycle Secondary	2nd Cycle Secondary	Higher Education	Undeter- mined	Total
1992	Niamey	52.7	31.4	12.3	1.8	0.7	1.1	826
	Other cities	71.7	21.1	5.1	0.8	0.3	1.0	1,387
	Rural	93.6	5.2	0.2	0.0	0.0	1.0	10,677
	Niger	88.6	8.6	1.5	0.2	0.1	1.0	12,890
1998	Niamey	44.4	37.5	13.9	3.4	0.7	0.1	1,054
	Other cities	62.1	27.2	9.0	1.4	0.3	0.0	1,599
	Rural	91.7	7.6	0.6	0.0	0.0	0.1	10,513
	Niger	84.7	12.1	2.6	0.5	0.1	0.0	13,166

Source: DHS, 1992 and 1998.

Although official performance indicators from the 2000 school census are different from those in the 1992 and 1998 surveys, the general trend of a limited increase in the basic school enrollment rate remains the same for the period 1990–2000. Progress in school enrollment is modest and really only involves urban areas. In rural areas, the proportion of uneducated women

declined by only 2 points, compared to 9 points in secondary towns and 8 in Niamey. Statistics reveal an increase in basic school enrollment rates in the first decades after the country's independence (from 7.7 percent in 1963 to 27.6 percent in 1990). But during the 1990s, the basic school enrollment rate seems to have stagnated at about 30 percent. Then, according to the March 2000 school census, the rate increased from 29.5 percent in 1996 to 34.1 percent in 2000. At an annual average growth rate of 1 point, the basic school enrollment rate in 2015 will be approximately 50 percent, which is far short of the 84 percent school enrollment for boys and girls indicated in the PRS. Achieving this level would mean implementing significant measures to both address the increase in the number of children to be educated—a direct consequence of the fertility rate remaining high—and to increase the basic school enrollment rate, that is to say, improve school coverage. Considering its limited means, the question is whether the Nigerien government will be able to address this double challenge.

### **Total Health and Vaccination Coverage**

The absence or poor quality of statistics before independence means that analysis of health indicators in Niger is only possible for the past 40 years. In the medical arena, reliable national data were first collected the early 1990s, with the DHS and the MICSS.

These recent surveys, carried out at regular intervals, show that the country's health situation has not evolved as positively as expected. They still show very high levels of general mortality and even stagnation in the infant mortality rate, connected with an upturn in neonatal mortality during the first month of life, in the 1990s (Harouna, 2002).

Despite some progress, infectious and parasitic diseases remain the primary cause of death. The vaccination coverage rate increased from 17 percent in 1992 to 22 percent in 2000, and the number of never-vaccinated children under five declined 6 points (from 59 percent to 45 percent). Nevertheless, the use of health services remains very low in Niger (Harouna, 1998).

Like the education sector, the health sector is confronted with the double challenge of increasing coverage as population numbers continue to climb. Current very low rates of total medical and vaccination coverage mean that the quantitative challenge is enormous: As this paper has detailed, even assuming a decline in fertility the population is expected to double by 2020 and quadruple or quintuple by 2050. Certain inherent structural difficulties in the Nigerien health sector, such as limited access and weak demand for existing services, are themselves formidable, without the added problem of population growth. This report does not address these structural problems but illustrates the additional difficulties that Niger's very rapid population growth will pose for the health sector in the coming years.

### *Shortage of Medical Personnel*

One of the most striking problems is the shortage of medical personnel. Current ratios of medical personnel per inhabitant are already very low (Table 4.4), and are at risk of declining further unless training of medical personnel follows demographic growth trends—unless the number of trained medical and paramedical personnel does not at least quadruple or quintuple in the next 50 years (United Nations, 2002).

**Table 4-4. Numbers and Ratios of Public Health Professionals, 2000**

Category	Number	Ratio	WHO-recommended Ratio
Doctors	226	1 for 47,531 inhabitants	1 for 10,000
Pharmacists	13	1 for 769,230 inhabitants	1 for 20,000
Dentists	13	1 for 769,230 inhabitants	1 for 50,000
Certified nurses	1,128	1 for 9,000 inhabitants	1 for 5,000
Certified midwives	334	1 for 6,650 women of childbearing age	1 for 5,000

*Source: Niger, 2000b.*



The internal personnel redeployment plan drawn up by the Ministry of Health<sup>29</sup> in 1997 revealed a shortage of 533 health workers at the district level, 313 at departmental level hospital centers, and 39 in department level health directorates for that year alone (Niger, 1999b). The strategic development plan for human health resources for the decade 2000–2010 comes to the same conclusion. It recommends recruiting an average of 300 health professionals per year between 2000 and 2004 to make up this deficit. It also recommends a goal of 10,334 new health professionals by the end of the decade to comply with WHO recommendations (Table 4.5), replace employees who leave public service (through retirement, resignation, dismissal, death, etc.), expand health care coverage, introduce new health technologies, and match population growth (3.1 percent per year). In reality, these objectives simply fill existing gaps and increase the country's health care coverage by 2 percent per year. Yet the needs are much greater. For example: applying WHO standards to Niger's current situation would mean five times the current number of doctors, 40 times more pharmacists, 16 times more dentists, nearly twice as many nurses, and 40 percent more midwives. Taking expected demographic changes into account, these figures must be multiplied by two by 2020, and by four or five by 2050.

**Table 4-5. Projected Needs for Health Care Workers in Line with WHO Recommendations, 2000–2050**

Year	Total Population (thousand)	Women of Childbearing Age (thousand)	Doctors	Pharmacists	Dentists	Certified Nurses	Certified Midwives
2000	10,742	2,287	1,074	537	215	2,149	458
2005	12,873	2,713	1,287	644	258	2,575	543
2010	15,388	3,235	1,539	770	308	3,078	647
2015	18,317	3,890	1,832	916	367	3,664	778
2020	21,731	4,712	2,173	1,087	435	4,346	943
2025	25,722	5,678	2,572	1,286	515	5,145	1,136
2030	30,337	6,798	3,033	1,517	607	6,068	1,360
2035	35,521	8,102	3,552	1,776	711	7,104	1,621
2040	41,145	9,634	4,115	2,058	823	8,229	1,927
2045	47,031	11,394	4,703	2,352	941	9,406	2,279
2050	53,037	13,323	5,304	2,652	1,061	10,608	2,665

*Source: Calculations made on the basis of 2002 United Nations projections (medium variant).*

In the current state of affairs, the national human resource training system for the health sector is incapable of meeting such expanded needs. The public health personnel training system is already experiencing huge difficulties. Admission capacity has been completely exceeded, there is an inadequate number of instructors, national government budget funds are below the minimum, and training programs are outmoded in terms of meeting the needs of the Nigerien people and the national health policy (Niger, 2000b). Furthermore, the transformation of public training schools for health professionals into administrative public establishments, which was intended to address operating costs, is more likely to increase the deficit, because a large proportion of parents cannot pay the high costs of enrollment in specialized schools.

A recent evaluation of the Health Sciences Department at Abdou Moumouni University in Niamey also highlights serious shortcomings in infrastructure, financing, information and documentation, facilities, and management and human resources systems (Gwatkin et al., 2000). These conditions, along with difficulties in obtaining financing from foreign partners for training abroad, may make it impossible to meet the demand for 30 to 40 additional doctors a year for the next 10 years. Only a tiny elite has access to foreign scholarships; and graduates, who receive many better-paying employment offers, rarely return to the public service jobs for which they were trained. The inescapable bottleneck posed by the medical personnel situation is worsened by the country's rapid population growth.

<sup>29</sup> Its full name is the Ministry of Health and Epidemic Control.

### *Insufficient Financial Resources*

Another bottleneck is lack of financial resources to ensure proper functioning of the health care system. Declines in performance lead to generally unfavorable budgetary decisions regarding operating funds and investments. Given scarce national resources, an increasingly large share of the health budget is allocated to operating costs to the detriment of building maintenance and purchase of equipment. In 1989, 57 percent of the health budget was spent on personnel expenses alone (Dubresson, 1990; Niger, 1994a).

To mitigate these budgetary shortfalls, the national government delegated the management of health services to local governments, which must try to improve the quality of care for their citizens with their own resources. These resources come exclusively from direct taxes (road taxes, market fees for small businesses, and per capita taxes on rural populations), and indirect taxes (value-added tax) paid by their residents. In assuming their new responsibilities, local governments have tightened tax-collection procedures. The national government also authorized them to introduce a cost-recovery system for health services. Nigeriens now must pay traditional taxes as well as for provision of health services.

Funds received from cost recovery in health centers are managed by the communities, organized into management or health committees. These funds are basically for restocking drugs, management support, and the salaries of the health workers who manage drug sales in the centers.

However, shortcomings in the management of these funds and the absence of monitoring mechanisms have led to frequent shortages of stock, employment of unqualified personnel, corruption in health services, and drugs commonly being sold on the streets (Adovohekpe et al., 1997). Half of the funds collected are supposed to go into local government accounts for reinvestment in new infrastructure and maintaining medical equipment. The other half is supposed to serve as a bonus fund to motivate health personnel and improve their performance. However, once deposited in the public treasury, funds have rarely been used for their intended purpose. Confronted with budgetary shortfalls, the national government has often dipped into local government resources. As a result, it is currently rare for a health center (such as hospital, maternity clinic, or training school) to deposit its revenue into the national treasury. Thanks to the progressive change in their legal status (to public establishments of an administrative nature), they can now deposit collected funds in a commercial bank and pay their own expenses.

Human Development Reports (UNDP, 1997, 1998, 1999, 2000, and 2002) show that total allocations to the health sector declined between 1990 and 1993 before starting to climb briskly in 1994 (in 1999, the share of health expenditures in the national budget was estimated at 9.1 percent). This trend is also seen in operating expenses and capital spending. It can be explained by a fall in donor support beginning in 1990, which did not really resume until 1994 with the signature of a structural adjustment facility and the health sector program. Between 1990 and 1993, Niger faced difficulties in mobilizing internal resources as well as the Touareg rebellion, and refused to renew the structural adjustment program, which expired in 1991. The increased share of health spending in the national budget was essentially due to direct interventions by French Cooperation, Belgian Cooperation, UNFPA, WHO, the World Bank, the IMF, and the European Union (which financed Ministry of Health operations, excluding salaries).

What is more, hiring of health personnel practically stopped altogether because of limits on the wage bill and salaries that were too low to attract young professionals. A doctor stated "I can't stay earning a pittance of a salary—FCFA 90,000 a month—after 7 years of university studies. I manage to make ends meet by working in private clinics. As soon as I find something better, I'm leaving." This dissatisfaction was apparent as early as 1982 (Azam et al., 1993). Furthermore, both the creation of new health infrastructure and the maintenance of existing facilities declined to the extent that, according to one health administrator "The number of medical centers actually went down. The number of inhabitants that each establishment has to serve has increased." The story is the same for medical personnel, whose hiring stagnated due to financial constraints and population growth (Dubresson, 1990).

## Effects of Population Growth

This section illustrates the effects of population growth through five themes: more people in at-risk social groups, difficulties in finding modern jobs, inadequacy of rural household income, droughts, migrations and instability, and environmental degradation.

### *More People in At-risk Social Groups*

Demographic pressure results in limited job possibilities, and this situation, as hard as it is for men, is even harder for women. The 1998 DHS showed that one out of two women (47 percent) conducted no moneymaking activity at the time of the survey, and that for two-fifths of women this situation had lasted for more than 12 months. Only one out of six women (16.1 percent) had a stable job, while one out of five (22.7 percent) had seasonal work, and one out of seven (14.1 percent) had occasional remunerated work (Macro International Inc., 1999a).

The unemployment rate is highest for women in urban areas: half of all women (48.6 percent in secondary towns and 52.6 percent in the Niamey metropolitan area) were among the long-term unemployed when the survey was conducted, compared to 38.9 percent in rural areas. However, urban women had better chances of finding a permanent job—one woman out of three (28.1 percent) had a permanent job compared to only 13 percent in rural areas. Seasonal and part-time work predominates in rural areas, where one woman out of three had a seasonal job and one in six worked only part-time.

Men are less affected by long-term unemployment than women: nationally, only 7.5 percent of men had not carried out a remunerative activity during the 12 months preceding the survey. However, 7 out of 10 men (68.5 percent) worked in agriculture and 1 in 7 (13.6 percent) in the tertiary sector, while 5.4 percent did manual labor. Urban areas had the highest level of long-term unemployment: one quarter of men had been unemployed for more than a year when the survey was conducted. The long-term unemployment rate is even higher in Niamey, where 26.4 percent of the male population was not working, compared to 20.8 percent in secondary towns. For men living in the Niamey metropolitan area, the situation is even more troubling because agriculture employs only 8 percent of workers, compared to 10.4 percent in administrative jobs, and 18.6 percent in manual labor. A third of the male population has switched to trade, service provision, or domestic work. Long-term unemployment affects educated men the most, leaving 36.9 percent of those with secondary education or higher without work. Education no longer ensures access to a modern job because administration and corollary services can no longer employ more than two out of five men (38.9 percent) with secondary education or higher. This high unemployment rate is a very new phenomenon that can be explained by the country's economic and demographic trends.

### *Difficulties Finding Modern Jobs*

In the first years of independence, because of the low rate of education among nationals, modern employment was held mostly by expatriates from Western countries or neighboring countries such as Benin and Burkina Faso. Beginning in 1963, the arrival on the job market of young Nigeriens who had finished their studies encouraged the "Nigerization" of many administrative positions at the expense of expatriate professionals. This movement was encouraged by the resources obtained from groundnuts (the principal export product at the time) and by the dismissal and repatriation of expatriate professionals from Benin after the border crisis between Niger and Benin over Lété Island. Hiring of young Nigeriens continued throughout the 1970s, with the economy growing at an average annual rate of 10–20 percent, fed by livestock exports, production of groundnuts and cotton, and uranium exploitation. Many sectors—agriculture, extractive and manufacturing industries, water, electricity, building and public works, trade, transport, communications, banking, insurance, and social services—were modernized, for which a qualified labor force was required. Employment in the modern public and quasi-public sectors, which was 18,000 in 1975, increased to 36,258 in 1978. Such impressive progress (more than double in four years) resulted from the boom in uranium and affiliated sectors. Job supply greatly exceeded demand, to the point that some students interrupted their training to begin working. This was especially true in teaching and communications, sectors in which new infrastructure was built faster than personnel could be

trained. Authorities had to call on high school and college students, who took accelerated training, to fill some of the created positions (Dubresson, 1990).

Shrinking domestic resources (uranium, income-producing crops, and livestock), a decline in the volume of economic activities, the national government's disengagement, and downsizing of corporations and public firms beginning in the second half of the 1980s caused heavy job losses in the modern sector of the economy. Both the public and private sectors cut back on hiring. In 1990 for example, only 14 percent of job demand was met. Public service in Niger, which had absorbed most of the secondary and professional graduates, carried out a census of its numbers in 1986 before firing some of its employees. Layoffs and downsizing reached the private and quasi-public sectors in 1987, when several entities were restructured or closed. Public sector employment declined from 28,034 in 1989 to 16,895 in 1996, a decrease of about 40 percent (UNDP, 1998). Table 4-6 shows layoffs and downsizing trends in the public sector between 1989 and 1996, but does not include layoffs that occurred when private firms closed or moved.

**Table 4-6. Personnel Layoffs and Job Losses in the Public Sector, 1989–1996**

Year	Layoffs	Job Losses	Layoffs and Job Losses
1989	816	1,361	2,177
1990	628	1,014	1,642
1991	736	Not available	736
1992	339	401	740
1993	420	456	876
1994	167	157	324
1995	452	879	1,331
1996	268	337	605
Total	3,826	4,605	8,431

Source: UNDP, 1998.

Despite a slowdown in job layoffs during the 1990s, 8,431 people still lost their jobs between 1989 and 1996. To fully realize the social impact of these events, the number of jobs lost must be multiplied by 10, given the average household size and extended family members who depended on the laid-off workers' income (Assogba, 1998). These job losses affected a large population accustomed to urban living, for whom returning to rural activities (such as agriculture) could only create huge problems. These people joined the ranks of the urban poor with temporary, irregular, and low-paid work in outlying neighborhoods.

Rising poverty affected the people who had lost their jobs and could not find work and their families. It also affected the privileged few who worked in the public service whose salaries were not paid regularly. Faced with a persistent economic crisis and treasury shortfalls that prevented the payment of civil servants' monthly salaries on time (with these workers amassing 10 to 12 months of back pay), the authorities conducted salary cuts of almost 30 percent in 1997. Added to these difficulties were the increased cost of living after the devaluation of the CFA franc in 1994 and poor harvests due to climatic hardships, which led to higher prices for certain basic foodstuffs, putting them beyond the reach of the poor.

#### *Inadequate Income of Rural Households*

Rural households earn most of their income from agriculture and animal husbandry. In total, 85 percent of men and 48.7 percent of women work in this sector (Macro International Inc., 1999a; Harouna, 2002). Their incomes are heavily dependent on unpredictable climatic conditions, the availability and accessibility of arable land, and the means of production at their disposal. While two-thirds of the national territory is desert, and thus unsuitable for agriculture and raising animals, annual rainfall varies from 400 mm to hardly more than 600 mm in the arable zone. The irregularity of rainfall and the concentration of rain in a short period (three or four months) often prevents crops from being harvested on time, leading to frequent food

shortages that defeat farmers' efforts to feed their families. These circumstances make the price of foodstuffs prohibitive for the most disadvantaged.

The decline in rural incomes is also due to a lack of arable land. In rural areas, only two out of five men (40 percent) own their own land, while 38.5 percent work on family-owned land, and 6.5 percent lease the land that they work. The situation is even worse for women, for whom leasing is rare (1.9 percent). Only one woman out of five owns the land she works, and the rest work on family-owned properties (Macro International Inc., 1999a; Harouna, 2002). Several studies have shown that food shortages have much greater impact on the nutritional status of those people who do not own land because landless people must deduct part of their meager harvest to give to the landowner, thus reducing their resources.

### *Droughts, Migrations, and Insecurity*

In such circumstances, many working-age men are forced to leave their villages to live in the outlying neighborhoods of urban areas where they conduct petty trade. In 1998, the DHS found that the husbands of 33.9 percent of women had left "in exodus", as the expression goes, during the preceding 12 months. These temporary displacements are very much a function of age. Between the ages of 20 and 29, half of all married men leave their villages when the harvest is over to live in an urban area in search of additional resources to meet the needs of their households. These seasonal migrations turn into permanent moves to the new area, and the family usually follows suit. These migrants swell the numbers of the poor in urban areas, because this poorly qualified workforce, when it finds work, does various kinds of manual labor, performs personal services (as guards and boys), or engages in petty trade. In urban areas, one seasonal migrant out of six (16.6 percent) ends up unemployed, while two-thirds become agricultural workers. In most cases, these are unreliable jobs that hardly provide enough money to meet the needs of the family. What is more, conditions of housing and hygiene (clothes, personal care, etc.) and accessibility to potable water and sanitation systems are often deplorable, and these groups lack the means to feed themselves properly, provide education for their children, or use health services (Macro International Inc., 1993 et 1999a).

In addition to insufficient resources, cultural attitudes learned during childhood in rural areas make adaptation to urban life difficult. The 1992 DHS noted that the socialization environment of the mother is the greatest determining factor for infant mortality (Harouna, 1998). Children whose mothers spent most of their first twelve years living in a rural area run a high risk of mortality, even following a move to urban areas. This bias can be explained by the fact that mothers socialized in the country provide little prenatal and postnatal care for their children. At the time of the survey, only 1.4 percent of children whose mothers had been socialized in the country had received the full complement of prenatal care, while 66.6 percent had received none. In urban areas, only 10 percent of children whose mothers had been socialized in an urban area lacked prenatal care. The same is true of postnatal care: only one-third of children (29.4 percent) born to mothers socialized in the countryside had received all their vaccinations, and 55.1 percent had received no vaccines, unlike the children of mothers socialized in urban areas, two-thirds of whom had received all their vaccinations (Harouna, 1998).

### *Environmental Degradation*

In Niger, the relationship between people and the environment is probably more intense than in any other country (Niger, 1999a). The constituent elements of the environment—the natural resources available for future use or capable of being mobilized for future use—are very limited, but needs continue to grow rapidly because of accelerated population growth and the concentration of the population in the small zone in the central and southern parts of the country where rain-fed crops can be raised. Ninety percent of the entire population is concentrated on one-third of the national land area, while the country's northern and eastern areas (the regions, formerly departments, of Agadez and Diffa), which make up 65.1 percent of total land area, are inhabited by only 6 percent of the total population. (See Table 4-7)

**Table 4-7. Population and Land Area Percentages and Population Density by Region**

Regions <sup>a</sup>	1988			2001		
	Population (%)	Land Area (% of total)	Density inhab/km <sup>2</sup>	Population (%)	Land Area (% of total)	Density inhab/km <sup>2</sup>
Agadez	2.9	52.7	0.4	2.9	52.7	0.5
Diffa	2.6	12.4	1.3	3.0	12.4	2.1
Dosso	14.0	2.7	37.9	13.7	2.7	43.7
Maradi	19.2	3.3	41.7	20.4	3.3	52.7
Tahoua	18.0	8.9	22.3	17.7	8.9	16.8
Tillabéry	18.3	7.7	13.6	17.2	7.7	19.1
Zinder	19.5	12.3	11.1	18.8	12.3	13.0
Niamey	5.5	--	--	6.3	--	--
Niger	100.0	100.0	--	100.0	100.0	--
Total Number	7,251,626	1,267,000	7.1	10,790,352	1,267,000	8.5

<sup>a</sup> Formerly departments

Source: General Census.

Harsh climatic conditions, scarcity of water, and encroaching desertification encourage population concentration in the area called “the usable Niger” that is suitable for agriculture and animal husbandry, which still employ more than 80 percent of the total workforce. But outdated production methods and the rate of population increase mean that agro-pastoral production is inadequate to consistently meet the population’s basic needs. An assessment of grain trends (Table 4-8) shows a widening gap between national grain production and the needs of the population, which is growing at a rate of 3.1 percent per year.

National production varies from one year to the next depending on rainfall, but during the 1990s, national grain production was on average 15 percent lower than the need for grain, resulting in an approximate deficit of 400,000 tons per year (Guengant and Banoin, 2002). This deficit was met by grain purchases, food aid, and of course, consumption of fewer meals each day, especially during the bridge period and in areas with the greatest shortfalls. This has been noted every year by the early-warning agency that was instituted in the 1970s to predict and avoid the serious food shortages recorded during the great drought of 1973–74.

**Table 4-8. Grain Production and Needs, 1982–1996 (thousand tons)**

Year	Production	Available Production	Needs	Balance
1982	1,699.7	1,444.7	1,429.0	+15.7
1983	1,705.2	1,449.4	1,476.2	-26.8
1984	1,067.1	903.6	1,525.2	-621.6
1985	1,839.2	1,563.3	1,575.6	+12.3
1986	1,825.2	1,551.4	1,627.9	-76.5
1987	1,431.9	1,217.1	1,681.9	-464.8
1988	2,384.3	2,026.7	1,737.6	+289.1
1989	1,493.1	1,269.1	1,795.2	-526.1
1990	1,398.2	1,188.5	1,854.7	-666.2
1991	2,321.0	1,972.9	1,990.8	-17.9
1992	2,173.8	1,847.7	2,080.5	-232.7
1993	2,079.4	1,767.5	2,162.6	-395.1
1994	2,566.7	2,181.7	2,216.1	-34.4
1995	2,093.3	1,769.1	2,295.4	-526.3
1996	2,261.0	1,906.5	2,229.8	-323.3

Source: Ministry of Agriculture, Agricultural Statistics Agency

Increased food needs as a result of rapid population growth without changes in technical methods and improved output have led to the exploitation of new arable lands where human and animal overcrowding has worsened. According to projections made in 1994 by the Population Directorate of the Ministry of Social Development,<sup>30</sup> areas under cultivation grew by four between 1976 and 2010 (Table 4.9). This phenomenon primarily affects the central and western regions of the country, which are suitable for rain-fed cultivation but are also already the mostly densely populated to the point of saturation.

**Table 4-9. Demand for Arable Land, 1976–2010 (hectare)**

Department	1976	1989	2000 (projected)	2010 (projected)
Agadez	---	2,000	---	---
Diffa	123,000	71,000	170,000	323,000
Dosso	1,334,000	552,000	790,000	1,073,000
Maradi	1,113,000	992,000	1,763,000	3,113,000
Tahoua	587,000	544,000	836,000	1,180,000
Tillabéry	1,931,000	587,000	1,346,000	2,428,000
Zinder	1,266,000	927,000	1,930,000	3,656,000
Total	6,354,000	3,605,000	6,925,000	11,773,000

Source: Niger, 1994b.

Before new, uncultivated land (called “the bush”) can be put into production, it must be cleared. This deforestation, coupled with extensive agricultural practices and the abandonment of fallowing, impoverishes the soil and often leads to its deterioration, or even sterilization. This sterilization of numerous over-exploited areas exacerbates desertification and reduces wood production, especially the firewood used daily by the great majority of Nigerien households to prepare their meals. Decreased wood production in some areas, in turn leads to deforestation of new areas, which contributes still more to soil deterioration and environmental degradation. A study carried out in 1999 by the Ministry of Social Development showed that, except for Dosso, all the regions in the country fall short in wood production (Table 4.10). If no change is made in the energy source used for daily meal preparation, these deficits can only worsen as needs continue to grow as a direct consequence of rapid population growth.

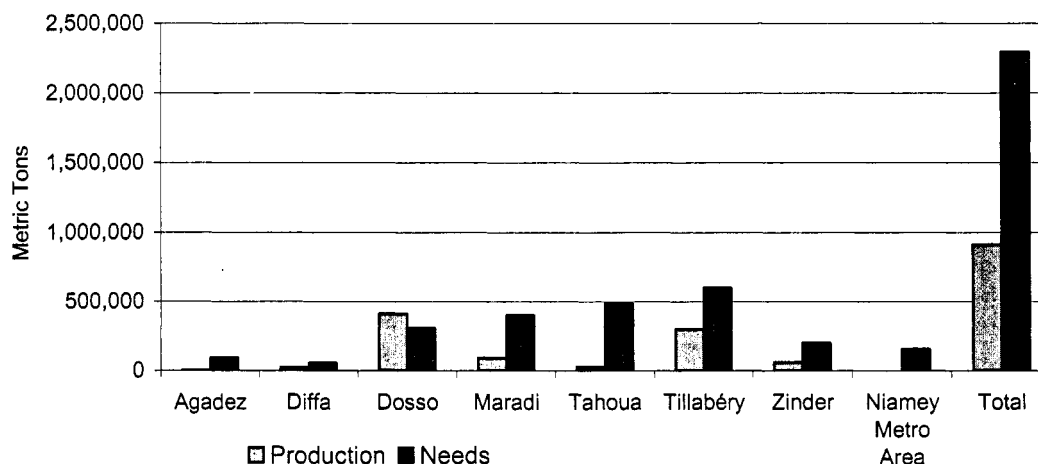
**Table 4-10. Wood Production and Firewood Consumption  
Needs by Department (metric tons)**

Department	Production	Needs	Balance
Agadez	1,800	91,980	-,90,180
Diffa	21,517	55,003	-,33,486
Dorso	409,770	306,600	103,170
Maradi	90,000	398,815	-308,815
Tahoua	27,672	485,000	-457,328
Tillabéry	300,000	600,000	-300,000
Zinder	60,000	200,000	-140,000
Niamey Metro Area	0	156,000	-156,000
Total	910,759	2,293,398	-1,382,639

Source: Niger, 1999a.

<sup>30</sup> Its full name is the Ministry of Social Development, Population, Women’s Rights, and Child Protection.

**Figure 4-2. Wood Production and Firewood Consumption Needs by Department**



Source: Niger, 1999a.

### Synergy between Poverty Reduction Efforts and Population Programs

It is in this context, where national grain production is insufficient to meet the population's food needs, that the country's inability to meet the growing need for children's education and the drop in use of health services in the 1990s must be seen. These two tendencies can be explained in part by the suspension of foreign funding following the country's political troubles and by the introduction of the cost-recovery system. Because the national government had such meager resources, it in effect transferred part of the burden for operating health services to households, whose resources were already stretched thin. As a consequence, health services deteriorated and their use declined.

The PRS was intended to reduce these aspects of poverty—food insecurity, weaknesses in education and limited access to health services (see Box 4.1). But with population growth worsening an already bad situation, the fight against poverty must also address the need to reduce population growth. The PRS should therefore also be a tool to help limit population growth, which should facilitate access to the necessary resources to enhance public service operation, and over time, improve the well-being of the Nigerien population.

The PRS emphasizes income-generating activities, especially for the most disadvantaged population groups—women of childbearing age and people under age 15. These groups, that together make up nearly 75 percent of the Nigerien population, are also the most likely to live in unsafe conditions, have only limited access to education, and be more exposed to illnesses because they lack access to health care (IMF/IDA, 2002). The development of income-generating activities and the inclusion of gender issues in the PRS should accelerate the process of women's emancipation to improve women's social status. The PRS should also make it easier for women and youth to gain access to factors of production and other resources by continuing to support capacity strengthening for women's groups, promoting rural savings and loan mechanisms, supporting rural producers' organizations, strengthening research capacity in the conservation of agricultural, forestry, and animal products, and improving training and management of rural producers' groups (World Bank, 2000a).



#### Box 4.1. Poverty Reduction Strategy Objectives

The actions proposed in the PRS in agriculture and food security target the following objectives over time: Control and knowledge of productive potential; conservation and development of genetic resources; creation and rehabilitation of poultry-farming centers; strengthening of research capacities and technology transfer; revitalization and decentralization of existing agricultural manufacturing units; establishment of factories to assemble power cultivators and mills; integrated crop protection; stocking of ponds and fisheries with fish; rehabilitation and creation of hydro-agricultural facilities; promotion of special systems for provisioning agricultural, forest, zoo-technical, and veterinary inputs; strengthening the trade capacities of rural production through the development of rural infrastructure (slaughterhouses, drying facilities, livestock markets); and income growth through the development of agricultural, forestry, and livestock processing. They also aim at improvement of mechanisms for preventing and mitigating food crises; development of the market information system; strengthening of mechanisms for managing food crises; implementation of grain banks; construction of regional infrastructure for storing and conserving seeds; construction of paths to open access to production zones; support for changes in food behavior by promoting substitute products and sub-products; improvement of food conservation and processing techniques; and promotion of forestry and animal products and sub-products (see also Annex 1).

PRS activities for improving the school enrollment rate, especially for girls, are also likely to promote a reduction in unwanted pregnancies, at least in the long-term. Studies in Niger and other countries show that a higher level of education, especially for women, is positively correlated with lower rates of fertility and early high-risk pregnancy, and greater use of modern contraception methods (Harouna, 1998).

Support to income-generating activities and improving access to education will also help women acquire the social status and resources necessary to resist traditional maternal care practices, which create a major risk for their health and the health of their children. Women could learn the appropriate response necessary for regulating their fertility, through their free choice of using modern methods of contraception, and arguments to influence their husbands' decisions on having children. DHS data show that most educated women openly discuss the total number of desired children with their husbands and decide when they will give birth. These are the behaviors that must be promoted in the future when new population programs are implemented. But these new behaviors can occur only in a social setting where household living conditions are satisfactory, especially in terms of food. This is rarely the case in Niger, where acute and chronic malnutrition for women and children is very high, and where food security is far from certain (Gwatkin et al., 2000; Oomman et al., 2003). The PRS calls for activities to improve factors and systems of production with a view of ensuring food security.

Reaching the various sociodemographic objectives of the PRS will take time (see the list of objectives in Annex 1). The objective for education in the PRSP—an increase from a 37.3 percent enrollment rate for both sexes and 29.6 percent for girls, to 84 percent school enrollment in 2015—is very optimistic, as we have pointed out. This again illustrates the need to launch IEC and BCC activities as quickly as possible to motivate more couples to regulate their fertility. Large investments will be needed if PRS objectives for the Nigerien rural environment are to be reached—investments that will be financed in part from national funds and in part from foreign funds and that will require strict management. That is why, to implement the PRS, the Nigerien government undertook actions aimed at ensuring good management, institutional stability, and macroeconomic growth in order to strengthen human capital, develop economic and social infrastructure, and liberalize markets (for goods, services, and factors of production).

If these activities are successful, real GDP growth will reach 4.3 percent in 2005. It will be driven by the agricultural sector, promotion of the private sector, and rehabilitation and construction of infrastructure. Investment levels are supposed to reach 15 percent in 2005, and export levels 17 percent. But with a continued population growth rate of 3.3 percent per year this scenario will lead to real GDP growth per capita of only 1 percent in 2005. This means that three-fourths of the economy's overall growth serves just to offset demographic growth. It is estimated, however, that this scenario could lead to a reduction in the incidence of poverty in the order of 4–5 points between 2002 and 2005. Although growth remains fragile, recent experience

does appear to indicate that the Nigerien government has found the way back to economic growth. The mobilization rate of domestic funds improved recently, and the public treasury funds a growing share of operating expenses.

However, these potential gains will remain inadequate over time unless effective action is taken to rapidly reduce fertility, and therefore population growth, and to create positive synergies between poverty reduction activities and measures to reduce population growth. Interventions in favor of reproductive health and reducing demographic growth are, however, partly dependent on a fragile macroeconomic balance and the stability of public institutions. These interventions must be supported by the strong and unequivocal public commitment of political decision makers.

## 5. Forward-Looking Assessment

This chapter begins by examining the National Population Policy of 1992, and highlights the weakness of its conceptual framework and the inadequacies of its implementation. Next, it analyzes lessons learned from the Priority Action and Investment Program (PAIP) as well as from specific population projects. Finally, it explores new tracks being pursued in reproductive health, especially the Kollo South–South Cooperation project.

### National Population Policy

Basic needs for food, education, and health are not being met, as we have seen, because of the impoverishment of the national government, the weakness and instability of political institutions, and the acceleration of population growth. Rapid population growth led to the promulgation, in 1992, of the National Population Policy, with the objective of reducing the demographic constraints that the country faced. However, execution of the National Population Policy in the past 10 years has been deficient and has not helped reduce population growth, ensure a more balanced spatial distribution of the population, or increase the access to education, medical care, and resources necessary to improve the population's well-being.

#### *Adoption of the National Population Policy*

In February 1992, Niger became one of the first French-speaking African countries to adopt a National Population Policy. Policy coordination and implementation were supposed to be conducted through an institutional framework specified in Decree No. 98-020/PRN/PM, of January 16, 1998—six years after the adoption of the National Population Policy! This decree created the National Population Commission and placed it under the authority of the Prime Minister. In principle, the National Population Commission was to be supported by a number of coordination, monitoring, and evaluation structures at the central, regional, and local levels, with the National Population Directorate at the core. This directorate, in turn, was to be supported in its mission by a variety of specific groups and associations: the National Population Policy technical support group; the national information, education, and communication committee; the national network of communication technicians for population and development issues; the network of Nigerien members of parliament for population and development issues; the group of Islamic associations for reproductive health and women's rights issues in Islam; the group of NGOs working in population issues; and certain multilateral and bilateral development partners.

The overall objectives of the National Population Policy were mainly targeted at improvements in nutrition and health; standards of living; the “profitability” of the education system; vulnerable population groups, particularly women and children; data collection; and the promotion of population research. The National Population Policy also aimed to reduce the rates of morbidity and mortality. These overall objectives were translated into specific objectives that would lead to concrete actions to improve living conditions. The recommended strategies focused on developing the health sector to reduce morbidity and mortality rates; improving living conditions in terms of hygiene, sanitation, and access to potable water and adequate housing; improving school enrollment and literacy rates; promoting women's economic status; creating jobs; and establishing national proficiency in population issues to better ensure the implementation, monitoring, and evaluation of programs. But these strategies did not lead to the hoped-for success. In fact, impact indicators for these various sectors regressed in comparison to the baseline during the past 10 years (Harouna, 2002). This can be attributed to the conceptual weaknesses of the National Population Policy as well as to inadequacies in its implementation.

### *Weakness of the Conceptual Framework of the National Population Policy*

Analysis of the National Population Policy document reveals clear shortcomings in terms of the orientation of general principles, a complete absence of quantifiable objectives, and a relative silence on desired results in terms of fertility (although the general objective of increasing the contraception prevalence rate is mentioned). Desired morbidity and mortality trends are more clearly spelled out.

The National Population Policy is based on five cardinal principles—promotion of human resources, primacy of the family unit, individual and collective freedom of choice in sexuality and childbearing, protection of mother and child, and respect for the cultural distinctiveness of the country's traditional societies. It takes into account the values espoused in the international treaties and conventions to which Niger is party, such as the African Charter on Human and Peoples' Rights, the Convention on the Rights of the Child, the Convention on the Elimination of All Forms of Discrimination against Women, etc.

However, a careful study of its underpinnings reveals that the National Population Policy is more of a pro-natalist policy, with the intention of regulating demographic growth and improving the quality and length of people's lives in an environment of extreme scarcity of national resources. The first principle that emphasizes the primacy of human resources as a factor in development could even be seen as reinforcing traditional belief, according to which the demographic factor, far from hindering well-being, is perceived as a wealth-creating force. The desire for many descendants has meaning in agro-pastoral societies where the cost of having a child is reduced to a strict minimum because of the young age that children begin to work and the low level of qualifications needed to perform productive activities. This is not the case in the modern economic world, where entering the workforce requires long training that is expensive for parents and society. In these circumstances, human resources are of positive value only after they have acquired specific qualifications that are useful to society as a whole. The determining factor is therefore not an increase in the quantity of human resources through high fertility, but the enhanced quality of human resources through access to education, health care, and decent living conditions. Progressive changes in the conditions of production means that it is no longer necessary to have many descendants; on the contrary, it is preferable to have a limited number of children who are properly educated, well trained, qualified, and capable of accomplishing necessary activities in a high-productivity economy.

Any population policy must, in principle, ensure that the demographic factor does not become a constraint to economic growth. To this end, clearly defined policy decisions on the rate of marriage, fertility, mortality, and migration are necessary. It is not a question of imposing reproductive behavior on people, but of encouraging them to make judicious demographic choices that are compatible with development needs. Unfortunately for Niger, the National Population Policy gives no quantitative guidance on demographic trends. It expresses no specific commitment to reducing fertility levels—the main factor in the population's rapid growth. Its two stated objectives for family planning and access to modern methods of contraception fall under the category of improving mother and child health. Finally, no specific objectives were quantified to facilitate assessing progress and rectifying poorly performing strategies. No short-, medium-, or long-term deadlines were set for the improvement of demographic indicators in relation to the country's economic situation. Although the demographic data available in 1992 did not enable detailed knowledge of demographic indicators, access rates in sectors such as education, health, and employment were relatively well known. The policy therefore could have set quantitative objectives for the first decade of National Population Policy implementation (1992–2002).

### *Inadequate Implementation of the National Population Policy*

These conceptual weaknesses in the National Population Policy were compounded by shortcomings in implementation, including difficulties in coordinating activities, disruptions in financing of programs during periods of political instability, and lack of ownership by program and project beneficiaries.

Administrative and technical structures were created to carry out the National Population Policy. The National Population Commission, part of the Prime Minister's office, was intended to provide policy coordination for activities, while the Development Demographics Studies Unit was responsible for technical work. To promote smooth operations, the Ministry of Social Development created the National Population Directorate to play an administrative and consultative role, regrouping the National Population Policy implementation units (e.g., Development Demographics Studies Unit, National Population Commission, IEC).

The first obstacle to success was the fact that the National Population Directorate had neither the power nor the autonomy needed to carry out its coordination, monitoring, and evaluation tasks effectively. It fell under the Ministry of Social Development administratively, but received most of its financing from foreign partners, especially UNFPA, through the Strategies for Considering Demographic Variables in Economic Development Policies and Programs project, that eventually replaced the intended but never created Development Demographics Studies Unit. In addition, since 2001, the National Population Directorate has provided only administrative oversight for this project, which was transferred to the Ministry of Economy and Finance. When development partners withdrew financial support, the National Population Directorate lost some of its responsibilities, and most of its staff joined other agencies. The inadequacy of human and financial resources to carry out coordination, monitoring, and evaluation of the National Population Policy has become apparent in recent years. Departing staff was not replaced, and remaining staff, lacking operating funds and means of transportation, lost their motivation. The coordination of population activities suffered as a result.

The first decade of implementation of the National Population Policy coincided with political and institutional instability in Niger, and consequently with repeated suspensions of international assistance for development. From February 1992, when the National Population Policy was issued, until its 10th anniversary, Niger experienced two military coups d'état and three political transitions, and each time the international community suspended financial contributions to ongoing programs. These suspensions occurred at times when domestic funding was too low to ensure that population activities were carried out effectively. Financial constraints were such that the national government often found itself unable to ensure regular service provision or even pay civil servants' salaries, much less continue to finance investment and awareness-raising activities aimed at changing demographic behavior.

The programs implemented during 1992–2002 therefore did not reach their targeted objectives. An assessment of their inadequacies is useful to avoid repeating the same mistakes in the future. Except for various sector development programs and projects, the real population interventions were carried out by the United Nations, multilateral and bilateral partners, and NGOs. However, gaps in conception, coordination, and execution of activities also contributed to the lack of effectiveness of specific population interventions.

### **Priority Investment and Action Plan for Population Issues**

The first PAIP called for subprograms whose objectives might have been achieved if their implementation had not been disrupted by financial constraints and political instability. Executed jointly by the Ministries of Social Development, Education, Interior and Decentralization, and Health, this PAIP covered the period 1996–2000 and included four subprograms—strengthening reproductive health services; improving school enrollment and promoting women's rights; IEC in population issues; and in-depth studies and research on population and development. The PAIP also specified monitoring and evaluation mechanisms for program activities and for measuring the program's impact on beneficiary groups.

Through its component to strengthen reproductive health services, the PAIP made progress by creating institutional structures capable of coordinating reproductive health and family planning activities with ongoing activities.<sup>31</sup> The PAIP was intended to help improve

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<sup>31</sup> These cover the implementation of the Safe Motherhood action plan; the reorganization and integration of reproductive health and family planning activities; detecting and providing care for at-risk pregnancies;

access to health services, strengthen human capacity and material resources, increase literacy and school enrollment rates, and fight against traditional practices that are harmful to the health of mothers and children (such as genital cutting).

Family planning activities were based on the principle of helping people to voluntarily space births to reduce the high maternal mortality rate (652 per 100,000), stemming in large part from numerous pregnancies and linked to the often-deplorable conditions in which women give birth, and to limit the consequences of a mother's death on the survival of children. The National Family Health Center, later named the National Reproductive Health Center, was created for this purpose, with the objective of strengthening family planning and reproductive and sexual health activities.

### **Lessons Learned from Specific Population Projects**

All the specific population and reproductive health projects carried out in Niger experienced their share of difficulties. For example, family planning projects often had only modest results, in part because of funding and staffing limitations. Although a few local experiments were successful, their success could not be reproduced on a larger scale.

One project in particular—the Population project of the World Bank (Credit 2360-NIR of US\$17.6 million), completed in 1997—sheds some light on several problems inherent in this kind of intervention. It was the subject of an in-depth assessment (World Bank, 1998), which brought out several important lessons. Although modest, this project did, however, achieve some gains (Annex 5).

From the start the project suffered from lack of funding, which translated into limited execution and non-achievement of its objectives. Its strategy was to strengthen capacities for providing maternal and infant health and family planning services and promoting family well-being and the status of women, and to strengthen population policy analytical, research, and coordination capabilities. The geographic area covered by the project was limited to three densely populated regions (Tahoua, Tillabéry, and Zinder). It was implemented from January 1, 1993, to December 31, 1997. It had a total cost of US\$24.1 million, and was financed by the World Bank, the Nigerien government, NGOs, the private sector, UNICEF, and United Nations volunteers. The Ministries of Health, Social Development, Education, and Interior and Decentralization provided administration and executed the various project components.

The choice of strategies and geographic area was inappropriate and counterproductive and had negative consequences. Furthermore, the legal and political structure did not allow the promotion or provision of reproductive health services, including family planning. For example, the project never succeeded in really promoting the Family Code. Drafted in 1989, this was not adopted by the second to the fifth governments of the Republic, despite the favorable conditions created by multiparty elections in 1990 and the National Sovereignty Conference in 1991. The strong mobilization of some religious groups, who saw the code as questioning teachings about managing civil and customary affairs, prevented its adoption. According to these groups, a woman's place in society does not need to be regulated because it has already been determined by Islamic traditions that guarantee women standard rights in education, health, physical integrity, and the free enjoyment of her possessions and the exercise of trade. According to these rules, the head of the family is the man, and it is on him, and him alone, that all the responsibilities of the family rests. Even if the woman has wealth, she is not obligated to contribute to the family's expenses. Her material or financial participation must be a voluntary act. For these religious groups, therefore, the only problem linked to the status of women is the extent to which Islamic tradition is strictly respected.

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institution of a health record for mother and child as well as gynecological and obstetric technical information cards; intensification of health education; introduction of a reproductive health component in education programs for training schools; equipping structures to take charge of reproductive health and family planning; implementation of the technical platform to care for gynecological and obstetrical emergencies at the medical center level; detection and care of sterility and gynecological ailments; and research on the traditional practices and sociocultural factors likely to affect reproductive health.

However, women's associations who originated the drafting of the Family Code consider that men, because they hold religious power and benefit from the ignorance of women, systematically interpret religious texts to their advantage, sometimes going beyond the texts. It is true that Islamic tradition allows polygamy, grants parental authority to the father, gives the husband the right to repudiate his wife, and recognizes an inheritance regime that gives the largest shares to men rather than women, since it is men who must provide for the needs of the family. These measures, considered discriminatory by some groups, are still widely in force in Niger (Niger, 2002g).

The Population project of the World Bank nevertheless achieved modest success. The project was one of the driving forces behind the implementation of the National Population Policy, which was intended to help reduce maternal and infant mortality, encourage behavior leading to a decline in the fertility level, and strengthen women's participation in the country's socioeconomic development. The national workshop on the final evaluation of the project, held in February 1998 in Niamey, assessed the project's results, problems encountered, and lessons to be learned from each of the three project components.

The activities planned for strengthening the capacities of maternal and infant health agencies were carried out. In the nine districts covered by the project, the construction or rehabilitation of health care infrastructure was completed (Second Health project, Credit 2915-NIR), and these facilities were provided with the necessary equipment. The planned redeployment of health workers was partially achieved. Village health teams were also formed to improve access to care, and health workers received training in supplying family planning services. Large stocks of contraceptives were purchased and made available to participating health districts.

However, these basic activities did not result in the hoped-for outcomes because beneficiaries were not involved in project implementation. The Population project did not build any integrated health centers although it did provide for expansion of district hospitals. Furthermore, the IEC campaigns did not elicit much involvement from the people, nor did fertility behavior change. Although knowledge about modern methods of birth spacing improved, women's use of contraceptives remained very low. The objective of a rapid reduction in fertility levels during the five years of the project was not achieved.

Micro-credits to promote the economic status of women enabled the creation of 147 groups, 70 of which received project financing, from which 3,600 families benefited. The women involved were trained in association management, animal fattening techniques, vegetable garden processing and conservation techniques, and functional literacy. To provide this training the project hired a rural outreach worker for each district. Difficulties encountered include the lack of beneficiary ownership of this type of intervention, and management and administrative structures that were too heavy and expensive to be sustained. The February 1998 workshop therefore recommended streamlining the institutional framework and reducing the general costs of the organizations directing the women's groups. In summary, better results could have been obtained by entrusting execution of the interventions to NGOs instead of to national government agencies characterized by slow and expensive procedures. It is also essential to carry out preparatory diagnostic studies on the socioeconomic context of the micro-credits; carefully define the selection criteria for projects to be financed; involve beneficiaries in selection of activities; decentralize the selection procedures for projects and grants of credit; organize beneficiaries and promote their ownership of and financial participation in projects; and finally, institute a system of monitoring and evaluation of activities.

The project's support for analysis, research, and coordination of the National Population Policy made it possible to improve vital record keeping, strengthen the demographic data knowledge base through various thematic and monographic studies, and increase the logistical and technical capacities of the permanent secretariat of the National Population Commission. Operational problems were mainly linked to the unsustainability of accomplishments, especially because of inadequate staffing and financial resources. Since the end of the project, no serious study has been initiated or carried out by the National Population Commission, and the logistics tools it received have not undergone necessary maintenance. This structure also lacked the

human resources needed to conduct in-depth studies, despite an increase in the number of Nigerien demographers.

### **A New Track: the Kollo Reproductive Health Project**

Among ongoing population and reproductive health activities, the Support for South–South Tunisian–French–Nigerien Cooperation in Reproductive Health project, carried out in the Kollo health district, seems to be the best thought out (Box 5.1). Financed by French Cooperation and executed by Tunisian experts in collaboration with Ministry of Health staff, this project is being implemented with beneficiaries' input. Support is provided by the French NGO Équilibres & Populations, created in 1993 to resume French cooperation in population and reproductive health issues.

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#### **Box 5.1. Kollo Reproductive Health Project**

The Kollo health district serves a total population of 496,409 inhabitants, including 109,210 women of childbearing age. The total fertility rate is estimated at 7.5 children per woman and the annual average population growth rate is 5.5 percent (almost twice the national average). There are 26,000 pregnancies every year in the district.

The Support for South–South Cooperation in Reproductive Health project aims to help reduce maternal and neonatal morbidity and mortality rates. To achieve this, it attempts to improve health coverage rates and the completion rates for prenatal and postnatal consultations as well as the use of modern contraception methods. The strategy consists, on one hand, of strengthening the capacity to provide integrated health services by updating facilities and staff skills as well as by developing mobile health clinics integrating vaccinations; and on the other hand, of bringing together health services and the Integrated Health Centers of people living in distant areas (of more than 15 km from an Integrated Health Center), thanks to the creation of a network of mobile teams made up of midwives and outreach workers proposing the MPA. The project also intends to raise opinion leaders' and beneficiary groups' awareness of reproductive health issues.

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The project began activities in March 2001 with a study on traditional behavior, attitudes, and practices in reproductive and sexual health in the Kollo health district. The study aimed to identify sociodemographic indicators and determine necessary actions. It collected data on reproductive health needs, took stock of basic equipment required, rehabilitated existing health centers, put together the MPA to provide to beneficiaries, and estimated the staffing and training needs for the project.

The lack of permanent health infrastructure in the region led to the creation of mobile health teams made up of a midwife, outreach worker, and driver, with equipment adapted to living conditions in rural areas, that go from village to village offering the MPA and raising people's awareness of attitudes, behavior, and practices that are beneficial to the well-being of families. Subsidized by foreign partners, the services offered (prenatal consultation, vaccinations, family planning, and sexual health) are inexpensive and high quality.

For the time being, taking into consideration the resistance to change found in the Nigerien sociocultural landscape, activities remain focused on the well-being of mother and child because it is difficult to openly promote family planning and fertility regulation. Activities on the ground started in September 2002, so it is still too early to talk about a measurable impact, although the process indicators are very satisfactory.<sup>32</sup> However, the quality of the services offered, the enthusiasm of the personnel, and the degree of involvement of the beneficiary groups lend hope that the objectives set by the project for the next few years can be reached and that the model used in Kollo can be extended to the rest of the country, provided sustainability of this type of intervention can be ensured.

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<sup>32</sup> The latest data, obtained before this report was printed, show improved outcome indicators, including for contraceptive prevalence.



## 6. Urgent Need for Action

Approximately 12 years ago, Niger began to implement a series of population and reproductive health activities that largely coincided with the International Conference on Population and Development in 1994. These activities included the development of public-appeal mechanisms (computer-assisted presentations, brochures, and banners), analytical work on mortality and fertility, among other topics (for example, the 1994 Moreland and Guengant report), and the implementation of reproductive health programs and activities focused on family planning (through, for example, the Nigerien Association for Family Well-Being [ANBEF],<sup>33</sup> and the Population project of the World Bank). Several sources of funding were available at that time, including USAID funds. Given all these activities, it was not unreasonable to expect that a real national debate on population and reproductive health issues would begin. This did not occur, however.

In fact, over time, these activities fell by the wayside because of the Nigerien government's lack of money, the withdrawal of several development partners (especially USAID, in 1996), the country's political problems, and a relative lack of interest in population and reproductive health issues on the part of the Nigeriens involved. The urgent question that arises now is how to revive population and reproductive health activities? Such a revival is indispensable if the country wants to lower its high poverty rates and implement the PRS. It will have to comprise the following elements: a vigorous public appeal campaign; rehabilitation of family planning; identification and revitalization of key Nigerien actors; collaboration of development partners; an adequate institutional anchor; improved national coverage and coordination; firmer commitment from the government; and the support of the World Bank. This chapter examines each of these elements as well as strategies to operationalize the proposed tracks, to successfully re-launch population and reproductive health activities in Niger. It also proposes an agenda for future population and reproductive health research.

### Urgent Need for Public Appeals

Public appeals in population and reproductive health, especially family planning, still appear weak and timid in Niger. The few previous attempts to raise awareness, notably of Islamic leaders, about family planning, did not achieve much. By "public appeal" is meant the promotion of ideas by people who are themselves convinced of the ideas with the goal of persuading others. A good public appeal campaign must combine media and political visibility with scientific and technical expertise and be directed at key groups whose support or behavioral change is desired. The appeal must also be well targeted, which means abandoning broad, often vague themes such as "population and development" or "reproductive health" that do not put any particular emphasis on family planning. The appeal can include, if necessary, familiarization campaigns to make demography better understood.

A good public appeal program should have several outcomes: better incorporation of demographic issues in poverty reduction strategies and associated programs, which, as has been seen, is not currently the case; better incorporation of population growth (and of opportunities for regulating it) in planning how to meet the nutrition, education, and health needs of the population; and a more realistic forecasting approach to population dynamics in the work of other specialists (such as macroeconomists, anthropologists; development agents).

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<sup>33</sup> Association nigérienne pour le bien-être familial

In Niger, the people in charge of making the public appeal are generally not truly convinced themselves of the messages they are responsible for spreading. This lack of belief in social change and their timid commitment cripple any effort to convince others. Furthermore, public appeal campaigns are piecemeal and carried out only on a small scale whenever a little financing becomes available. In fact what is needed is a large-scale, long-term public appeal campaign that systematically targets all key groups and individuals, first focusing on figures such as members of parliament, religious leaders, journalists, and traditional chiefs.

### **Rehabilitation of Family Planning**

Data collected during the 1992 and 1998 DHS made it possible to measure the low level of fertility regulation among Nigerien couples, evaluate their future contraceptive needs (for both birth spacing and regulating family size) and better understand the opinions of women and men about the ideal family size. The very modest impact that family planning and fertility regulation activities have had thus far has already been noted.

Use of family planning is still insignificant. Only 9.6 percent of women and 4.2 percent of men who are married wish to have no more children. These proportions vary according to the number of children couples already have, region, urban or rural residence, and education level. Regulating the number of offspring—limiting family size—does not appear to become important to couples until after the sixth surviving child. Below this threshold, women want to have more children, usually without worrying about the duration of the appropriate interval between pregnancies (two years) necessary for the mother to fully regain strength after childbirth, or of the health problems caused by sudden weaning when a new pregnancy occurs a few months after the birth of the previous child (Macro International Inc., 1993 et 1999a).

What is also troubling is that pro-natalist predispositions are strongest in younger generations of married women. The persistence of this behavior does not promise a short- or medium-term decrease in fertility indicators. Without effective awareness-raising campaigns, and given this behavior and the low education levels of women of childbearing age, no reduction in fertility indicators can be expected. This leads to questions about the expression of demand for reproductive health and family planning services (Box 2.1) and about the specifics of implementing national IEC and BCC campaigns.

In Niger, like in most countries in Sub-Saharan Africa, discussions about family planning focus exclusively on birth spacing, which is presented as conforming to African traditions, versus limiting the number of births, which is seen as fundamentally bad because foreign to tradition. The need to reduce family size, which is not negligible, is not often discussed for fear of offending some pro-natalist groups. But in fact, this is no longer the issue; the issue now is the freedom of choice in procreation exercised by women and men, as well as the availability and accessibility of family planning and reproductive health services (Guengant, 2002c; Guengant and May, 2001).

It is useful therefore to rethink the entire concept of family planning services and promote the availability of high-quality services. From this viewpoint, the full 1994 Program for Action on reproductive health for all countries is too broad for many Sub-Saharan African countries that face multiple problems. Indeed, in these countries, a full reproductive health program could be considered a luxury because the number of births, which are still very early, numerous, and poorly spaced, and therefore women's lack of control of their fertility, raise the real major public health issue. Thus, adopting a full reproductive health agenda effectively relegates family planning to the status of a background issue, even when family planning is a high priority in the agenda. The Cairo Agenda was instead used to insist on other problems—important, but not necessarily high priority for some countries, given their circumstances—to the detriment of family planning. Two examples illustrate this in the case of Niger.

First, many national and regional forums were held on sterility, which affects approximately 3 percent of the Nigerien population. Sterility may well be a personal misfortune for the couples affected, but it concerns only a small number of people. Conversely, family planning, so that they can freely decide on the number of children they want to raise, feed, and educate properly, concerns 97 percent of Nigerien couples. Another example is the promotion of

awareness-raising about sexuality among seniors (for example, the West African Network seminar on reproductive health and family planning that was held in Niamey in June 2002). The subject may very well be important for many men and women, but it affects an age group that no longer contributes, at least very much, to rapid population growth, which the National Population Policy is intended to address.

Alternative strategies, whether providing supplies to the community or social marketing techniques, must also be explored to make family planning services available.

Use of social marketing techniques has suffered many setbacks in Niger: billboards pulled down in 1992, strong opposition of certain Islamic organizations, disintegration of the retail sales network, and finally, departure from the country of the firm charged with providing technical assistance for social marketing activities. A new social marketing and HIV/AIDS prevention project, planned for 5 years, began in March 2003. It provides support to the intersectoral coordination of the fight against the HIV/AIDS pandemic and STIs. Financed by the German development bank KfW as part of the cooperation between Niger and Germany, this project plans to conduct IEC activities as well as to promote and stock contraceptives and implement HIV/AIDS and STI prevention measures. The strategy consists of developing awareness-raising and communication campaigns to encourage changes in behavior vis-à-vis the prevention of HIV/AIDS and to develop social marketing campaigns to ensure the availability and accessibility of high-quality condoms to all at an affordable price. Project activities, which are in line with the directions defined in the national strategic framework for fighting HIV/AIDS and STIs, seems to be better accepted today because of the recognized need to combat the HIV/AIDS pandemic (Niger, 2002f), among other reasons.

### **Identification and Revitalization of Key Nigerien Actors**

The main Nigerien players in population and reproductive health issues can be identified as officials of the national government agencies involved (Population Directorate, Central Census Bureau, and medical and paramedical staff of the Ministry of Health); specialized NGOs and associations such as ANBEF (see Box 6.1); family planning and reproductive health professionals from the private sector; specific departments of universities (geography, demography, sociology, agronomy, etc.); religious and opinion leaders; traditional and community chiefs; and local governments and local communities themselves. For local governments and communities, and for associations, support through a variable-amount grant program (small subsidies) could be considered, following the model of a successful experiment in Chad, the Population Activity Support Fund, financed through a World Bank project (World Bank, 2002a).

#### **Box 6-1. ANBEF**

Among specialized Nigerien NGOs, ANBEF is the most active on the ground today. Created in February 1992, it receives financial support from the International Planned Parenthood Federation (IPPF), UNFPA, the Canada-Sahel Solidarity Association, and Luxembourg Cooperation.

ANBEF works in reproductive health and promotion of the economic status of young people and women. It therefore created medical clinics offering family planning and maternal and infant health services, and opened education and counseling centers for young people whose main mission is to prevent STIs and AIDS, unwanted pregnancies, clandestine abortions, and early sexuality; to detect and treat STIs; provide confidential consultations for unwanted pregnancies; and to ensure low-cost availability of modern contraceptive methods. ANBEF works therefore for better birth spacing and preventing STIs and infection by the virus that causes AIDS. It also supports women and young people through income-generating activities. Currently, it operates in four of the eight regions of the country (Dosso, Maradi, Niamey, and Tahoua) and hopes to expand to the other regions.

Nevertheless ANBEF currently faces great financial difficulties while the demand for its services continues to grow. The principal financial partner, IPPF, lowered its level of participation and the other partners no longer consistently support ANBEF activities, despite encouraging results thus far: In 2001, 5,285 women consulted ANBEF clinics.

Certainly, new leaders from among those Nigeriens active in population issues and in Nigerien society (and possibly from among others) must be identified, and current key actors must be reinvigorated. At the same time, they must have adequate support, receive reasonable pay (a fundamental problem), and have modern tools to work with (computers, Internet, means of transportation). This will help them move from a culture of project-management to a culture of social change activism, assuming that they themselves are completely convinced of the validity of the arguments they will be asked to endorse. Organizing periodic study trips to countries that are similar in terms of socioeconomic, religious, and cultural conditions appears to be an effective means of training professionals in population and reproductive health issues. Such a change in attitude will clearly take a certain amount of time and, moreover, cannot be brought about without a stronger commitment from development partners. The partners that are best equipped to bring about this change and play the role of mentor to their Nigerien colleagues must be identified. Then Niger will have some chance at getting a new start in population and reproductive health issues.

### **Development Partners**

Key Nigerien actors have worked with development partners in population and reproductive health, notably UNFPA, several bilateral agencies, and international NGOs (including IPPF) for a long time.

#### ***UNFPA***

UNFPA began working in Niger in 1983. The objective of its first five-year program (1983–87) was to support training of national professionals to better integrate demographic variables into the drafting of development plans, and sensitize political decision makers on these issues. The first phase of the Development Demographics Studies Unit project made demographic training possible for several national professionals in foreign universities and institutes, such as the Catholic University of Louvain (Belgium), the Demographic Training and Research Institute (Cameroon), and the Demographic Institute of the University of Paris I (France). This first phase also helped sensitize political decision makers to the need to formulate a National Population Policy to take demographic variables into account in development plans and programs.

The second phase of UNFPA interventions (1987–91) assisted in the drafting of the National Population Policy (1992) and the creation of conditions for its implementation. The framework document for the National Population Policy was drafted, the institutional framework and implementation plan were prepared, and development partners who could contribute financing were identified. The third phase (1992–97), which was meant to consolidate achievements and help government agencies and other participants execute the National Population Policy, took place in a difficult political situation. The objective of the fourth phase was not only to consolidate achievements, but also to make any necessary corrections to inadequacies noted in the execution of the National Population Policy (Box 6.2). Institutional support was provided and even extended to NGOs and associations involved in the population sector. This interim program covered the period 1998–99 and was extended to 2000 and 2001. It strengthened the institutional framework and sensitized certain opinion leaders in Islamic society (who, unlike leaders in a number of other Muslim countries, were generally uncooperative on fertility regulation and family planning issues) to gain their support for the National Policy Population. This phase also provided considerable assistance in conducting the third General Census (2001).

### Box 6.2. Information, Education, and Communication Activities (1998–2001)

Many IEC activities have been carried out with UNFPA support, but despite their number, they are still difficult to assess. Nearly 400 opinion leaders were trained in population, reproductive health and gender issues to take up where government agencies left off in disseminating messages and sensitizing the population. More than 40 journalists from public and private media were trained in techniques for handling information on population, reproductive health and gender issues to spread the messages and influence public opinion. More than 100 religious leaders were trained and involved in public awareness-raising campaigns conducted to encourage public acceptance of the National Population Policy. Three days of parliament were organized to discuss population, reproductive health and gender issues to enable the legislative branch to seriously consider the population variable when drafting laws. The same was done for 200 technicians who formulate economic and social development programs. Several studies were carried out to ensure thorough knowledge of the relationships between population and development issues. During the interim UNFPA program, the agency's financial support went largely to government agencies, NGOs and associations involved in the sector, and professional training in demography.

The fifth UNFPA program (2002–06) is ongoing. Besides continuing to provide financial support to activities of government agencies, it has targeted specific geographic areas to maximize the impact of population, reproductive health and gender activities.

Determining the impact of all these activities is still difficult, given the conceptual weakness of the National Population Policy, the troubled political environment of the period, and the lack of commitment to population and reproductive health issues by the Nigerien leadership.

#### *Other Multilateral and Bilateral Partners*

Among multilateral and bilateral actors, UNICEF and WHO are the most active. UNICEF focuses mostly on the well-being of women and children by supporting activities in birth spacing, maternal and infant health, and promotion of women's rights and respect of children's rights, while WHO works to improve the health conditions of the entire population.

The European Union as well as the cooperation agencies of European countries (Germany, Belgium, Denmark, France, Luxembourg, United Kingdom, etc.) and Canada are present in Niger. The United States supports several activities through its embassy in Niamey. All these partners finance and directly execute development projects, which take demographic variables (reproductive health, family planning, sexual health) into consideration to a greater or lesser degree. The European Union, in conjunction with UNFPA, also gave significant support to analysis activities of the 2001 General Census.

Thanks to the concerted efforts of several partners (World Bank, Belgium, UNFPA, German Technical Agency for Development, and Luxembourg), more contraceptive products are now available in Niger. These partners also helped to implement National Population Policy strategies.

#### *NGOs*

The other partners active in population issues are mostly foreign NGOs, several of which appeared beginning in the 1990s. Since USAID's withdrawal in 1996, U.S. bilateral cooperation has been carried out through NGOs such as CARE International.

NGOs implement multisectoral development projects throughout the country. These projects, focused mostly on reducing poverty in rural areas, sometimes indirectly touch on population growth, for example by helping government agencies provide modern contraception methods, by strengthening national competencies in reproductive health, and by improving some health infrastructure. They also sometimes contribute to studies and research on formulating, monitoring, and evaluating population interventions, such as the last DHS in 1998.

However, NGOs encounter serious human and financial resource problems that compromise the execution of planned activities. Financial support from development partners

dried up at the same time that the NGOs acquired experience and the public's growing acceptance of the services that they offer. Public appeals campaigns are therefore needed to persuade political decision makers and development partners to increase their financial support to the most active NGOs in population and reproductive health.

### **Importance of the Institutional Anchor**

At the institutional level, the central body for coordination, monitoring, and evaluation of population and reproductive health activities should answer to a higher institutional level than a ministerial department, to give it added weight. This body could coordinate the implementation of all activities related to population and reproductive health issues—production of statistics and information, public awareness, research, or even family planning programs. A single administrative structure—but one that remains open to the university (which has an important role of providing intellectual stimulation),<sup>34</sup> the mass media, and the private sector—would certainly perform better than the small units, generally lacking necessary minimum human and financial resources, that currently divide up the issue.

This administrative structure should certainly receive more attention in terms of financial resource allocation. The past 10 years have shown that a lack of human and financial resources affected the viability of population and reproductive health programs and the degree of motivation of the professionals responsible for them.

### **Need for National Coordination and Coverage**

Population and family planning activities in Niger currently appear to be scattered and disconnected. Although many parties are involved, their activities are not highly visible and vary greatly in scale. Activities are conducted as financing—most of it foreign—is received, and none are planned for the long-term. As no program covers the whole country, it is not surprising that outcomes are modest and fragmented.

It is important to break this start-and-stop, piecemeal approach and instead take coordinated and concerted action at the national level. The best strategy would undoubtedly be to set limited objectives, but on a national scale. Trying to cover the whole range of activities throughout the country would necessarily lead to incomplete results.

There is no shortage of money for debt reduction, notably from the HIPC initiative. What is in short supply, however, is the political will to invest on a large scale and for the long term in population and reproductive health activities, including family planning.

Furthermore, although coordination units created by development partners generally avoid double-financing the same activity, they rarely manage to synchronize their actions in the sector. These units therefore must be strengthened by integrating all those involved in population issues, but also by ensuring that intervention areas, targeted populations, and activities to be carried out are jointly determined, defined, and harmonized. This would make it possible to avoid concentrating activities in certain areas of the country to the exclusion of others, and especially, to maximize the impact of common efforts.

### *Future Research Agenda*

Despite the relative abundance of demographic data on Niger, there are shortcomings in two critical areas: first, the absence of several baseline studies (recent national demographic projections or detailed analysis of proximate determinants of fertility—see Annex 3) and of a rigorous modeling of the evolution of the HIV/AIDS pandemic according to different epidemiological factors. Consultations held during the preparation of this study have alerted national technicians to these needs and to the necessity of preparing new population projections to update the PRS. The other analytical tools can be prepared with the help of the World Bank.

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<sup>34</sup> For example, the university might organize scientific days on the theme of population in Niger, approaching the topic from different angles.

The second gap is the complete lack of qualitative studies on the determinants of fertility, family makeup, and the effects of the HIV/AIDS pandemic. Although promising studies have been conducted (Niger, 2003a), what is needed is a research agenda covering areas that have not been addressed and periodic updates of data. Again, the World Bank could support this important task under one of its projects or programs in Niger.

### *Role of the Government*

The Nigerien government is eager to commit to a long-term fight to bring down its high levels of poverty. To do so, in January 2002 it drew up a PRS framework document. Clearly the demographic constraint—too-rapid population growth—compromises the basic objectives of this PRS in the three key areas studied in this report: food security, education, and health. It is consequently crucial that the demographic parameters of the PRS be revised periodically to make them more accurate and consistent with the most recent data and analyses. The need for an in-depth revision of the demographic parameters of the first PRSP from 2002, discussed in this report, was extensively debated and recognized during the technicians' meeting held in Niamey in May 2003.

Furthermore, the onset of a decline in fertility, followed by continued decline, cannot take place quickly without the strong commitment and substantial involvement of the Nigerien leadership. Niger's leaders must commit themselves politically to this issue, if only for strictly health reasons, such as to reduce current levels of maternal and infant mortality, that are among the highest in the world. Besides making this commitment, the government has to equip itself with a more effective institutional structure charged with population and reproductive health questions. Finally, sufficient financing—national, multilateral, or bilateral—must be mobilized to launch consistent long-term programs covering the entire country. In order to make a fresh start on population and reproductive health, a national forum to address all these aspects of the population question must be organized urgently.

### **World Bank Support**

The World Bank supported the Niger government in the formulation of its PRS. It also alerted the country's authorities, in the Country Assistance Strategy, of the very serious implications too-rapid demographic growth would have on the achievement of its poverty-fighting objectives. This analytical study is meant to strengthen the argument stating the unavoidable importance of population and reproductive health variables.

The World Bank intends to continue to support the government in its poverty-alleviation efforts, notably by assisting it to periodically revise the PRSP, especially the sociodemographic and economic parameters and objectives. Furthermore, the World Bank wishes to focus more on the population variable in its new operations, including the new Health project planned for fiscal 2005. Finally, it will attempt to continue to draw the attention of Niger's other partners to the population issue, which is the key to the country's future.

## 7. Conclusions

Population issues are unquestionably one of the keys to the socioeconomic development of Niger, and to the future of the Nigerien people. While the country, whose poverty rate ranks among the highest in the world, attempts to improve the well-being of its people, it also must slow its population growth. If Niger is to quickly achieve the three fundamental objectives of food security, education for all, and total health and vaccination coverage, its current too-high demographic growth cannot continue. Indeed, too-rapid population growth not only makes meeting the needs of the current population extremely difficult, it also jeopardizes the fulfillment of the needs of future generations—who in 50 years may well be five times more numerous than today. The country's future socioeconomic development therefore depends in large part on reducing population growth. And whether the efforts to do so are effective depends heavily on the importance that the Nigerien authorities decide to give to population and reproductive health issues.

The government can decide to tackle this challenge head on, as other countries—including Muslim countries such as Bangladesh, Egypt, Indonesia, Iran, Morocco, and Tunisia, as well as countries in Sub-Saharan Africa such as Ghana and Kenya—have succeeded in doing. In this case, fertility will begin to decline, and the last phase of the demographic transition—the passage from traditional fertility levels to regulated fertility levels—will have begun. Dependency ratios will begin to improve, and social demand, especially for schools, health centers, and housing, will be more easily met, with the long-term possibility of improved quality of service.

Or, the government can continue to consider current population growth and reproductive health issues as minor problems. Then there is a risk that the progress in education and health will be lost because population growth will outpace the efforts undertaken. Social demand, especially for schools, health centers, and employment, will no longer be satisfied, and both the rehabilitation of current services, which are often poor, and improvement in their quality over the long term, will become impossible.

The main objective of this study was to shed some light on the debate about this fundamental decision, by providing relevant information based on the most recent data and analysis. All the elements of the study highlight the importance and the urgency of determined and effective action to reduce the current levels of population growth and meet people's reproductive health needs.

Still, the choices to be made on these issues are thorny and touch on diverse aspects—cultural, societal, and religious—of Nigerien life. In the final analysis, they are eminently political. Only Niger, its leaders and people, can sort out these basic—and vital—issues and reach decisions. But the consequences of their choices will have an economic and social impact for which national leaders clearly will have to take responsibility, vis-à-vis both the Nigerien population and its development partners.



## Annex 1. Millennium Development Goals for Niger

Objectives		Baseline		Quantitative Targets		
		Year	Value	2005	2010	2015
<b>Economic Prosperity</b>	<i>Reduce extreme poverty</i>					
	Head count poverty level	1994	63%	59%	55%	50%
	Extreme poverty level	1994	34%	30%	26%	21%
	Depth of poverty	1994	0.217	0.203	0.189	0.172
	Severity of poverty	1994	0.101	0.095	0.088	0.018
<b>Social Development</b>	<i>Universal primary education</i>					
	Crude primary school enrollment rate	2000	37.3	48	65	84
	Crude enrollment rate for girls	2000	29.6	42	66	84
	Proportion of children completing the primary cycle	2000	24.5	44	65	85
	Teacher/pupil ratio in primary	2000	43	45	49	50
	Gender ratio	2000	39.5	45	50	50
	Adult literacy rate	2000	19.9	28	38	44
	Education spending as percent of GDP	2000	3.4	4	5	6
	<i>Improvement in overall all health</i>					
	Life expectancy at birth	2000	48	50	55	60
	Total fertility rate	2000	7.5	5.5	4.1	4
	Infant mortality rate	2000	126	94.5	70.8	53.1
	Under-five mortality rate	2000	280	205	153	114
	Maternal mortality rate	2000	700	500	400	300
	HIV/AIDS prevalence rate	2000	1.4	1.5	1.12	0.8
	Health coverage rate	2000	48%	50%	55%	60%
	Immunization coverage rate	2000	18.4%	36.8%	55.2%	82.8%
	Under-five malnutrition rate	2000	39.6%	30%	22%	17%

Source: Annex 4 of the PRSP (extract); Niger, 2002c.

## Annex 2. Data Sources

This study relied mostly on the following data and documents: General Census findings from 1977, 1988, and 2001; data from the DHS of 1992 and 1998; data from the MICSS of 1996 and 2000; population projections, specifically, World Bank, U.S. Census Bureau, and United Nations (version 2002) projections; the National Population Policy, 1992; the first Priority Action and Investment Program for Population Issues (PAIP, 1996); Poverty Reduction Strategy Paper (PRSP, 2002); Special Program of the president of the Republic; National Strategic Framework for Fighting STIs and HIV/AIDS (2002-06); international reports (of UNFPA, UNDP, UNICEF, etc.) and national reports (from 1997 to 2000) on human development; the Population and Development series (Niger, 1994a); the study on food security in Niger (Guengant and Banoin, 2002); the modeling document on mortality and fertility trends (Moreland and Guengant, 1994); the brochure and poster "Population and Development in Niger" from 1994; the document "Nutrition of Young Children and their Mothers in Niger," 1998 (Macro International Inc., 1999b); school statistics yearbook 1999/2000 (Niger, 2000a); the Country Assistance Strategy (World Bank, 2003a); and World Bank project documents and analytical studies (1996, 1998, evaluation report on the new HIV/AIDS project, etc.).

The authors also held interviews with the main current and potential players in Niger working in population and reproductive health: technical agencies of the various ministries; representatives of the main development partners (NGOs, organizations for development cooperation or multilateral and bilateral donors); religious groups; traditional chiefs; women's organizations; universities; social common-interest groups; and opinion leaders. They thus were able to make a list of key operators and collect detailed information about their activities.

### Sources of Demographic Data

In Niger, assessing the demographic situation often was hampered by a lack of reliable data. The record-keeping systems for demographic data instituted during the colonial period worked poorly because of a lack of infrastructure and human resources. Furthermore, regularity of censuses and retrospective surveys often suffered due to a lack of financial resources, which were generally provided by foreign donors (Niger, 2002d). This annex reviews one by one the vital records registry, censuses, retrospective surveys, and current statistics.

#### *Vital Records Registry*

In Niger, like in most French-speaking African countries, the institution of a vital records registry goes back to 1939. After the country's independence several decrees, orders, and enforcement directives were passed to structure, decentralize, and coordinate the registry of vital statistics. An attempt by the Statistics and National Accounts Directorate to analyze the births, marriages, and deaths occurring from January to December 1995 showed that the coverage rate for record-keeping still remained too low to enable demographic trends to be studied at the national level. Even in the Niamey metropolitan area, the political capital of the country, the coverage rate is low: at least half of all deaths of children under five years of age were not reported between January 1992 and December 1998 (Harouna, 2002). The same is true for marriages, which are reported only by private and public professionals who receive benefits according to marital status. Presenting a marriage certificate to employers confers certain tax and social benefits that appear to play a large role in the reporting of births, which occurs more frequently than for marriage.

Administrative, legal, and customary procedures allow supporting judgments to be granted to users in place of certificates (for births, marriages, and deaths) on an exceptional basis. Those who delay reporting can consequently obtain certificates when they are desired. However, most of the rural population makes use of these arrangements only when it must deal

with the requirements of modern administration (school enrollment, inheritance, obtaining identity documents for emigration, etc.). Unfortunately, these arrangements result in the recording of sometimes-approximate information, especially about dates, which makes demographic studies based on vital records data imprecise. Great effort should therefore be made to increase the capacities of recording, processing, and analyzing vital records.

### *Censuses*

Niger has had three kinds of census. During the colonial period and even shortly after independence, political decision makers relied primarily on administrative censuses as a statistical tool for determining the number and the structure of the population (the first administrative census was organized in 1905). These administrative censuses, which were conducted at random intervals and published irregularly, made estimates of the composition of households and their supposed “wealth.” However, the very objective of these censuses—to oblige people to pay a per-head tax for themselves and their possessions (generally animals)—encouraged heads of families to under-report their numbers and their property. These censuses also attempted to determine the working-age population for forced labor and obligatory school and military recruitment. In such conditions, people were hardly eager to report the real status and structure of their households.

The second kind of large-scale demographic data collection took place during the surveys carried out in urban areas in 1959 and in rural areas in 1960. Conducted simultaneously in several African countries, these surveys, despite their limitations, reported the characteristics of populations when the countries achieved independence. They unfortunately had no follow-up.

It was not until 1977 that the first General Census was conducted. According to general opinion, this process did not fulfill its promises because of a lack of national expertise in collecting data and because of inadequate territorial coverage due to scarcity of resources. The second General Census in 1988 was conducted under more-favorable conditions. The satisfactory quality of the data made it possible to conduct an in-depth analysis of the status and structure of the population at the national, regional, and even local levels. A national registry of local governments was compiled. This second census also established a statistical sampling base for future surveys. A third census was carried out in 2001. The processing and analysis of these data are in progress, although preliminary data are already available.

### *Retrospective Surveys*

The shortage of demographic data at the national level caused some international organizations to carry out detailed data collection operations. Several surveys were conducted to determine indicators of the population’s status, movement and household living conditions: the survey on morbidity and mortality in 1985, the survey of determinants of child mortality in 1986, the DHS of 1992 and 1998, the MICSS of 1996 and 2000, and the survey on maternal morbidity and mortality of 1996. The organization of these nationwide foreign-financed operations usually bypassed the National Statistics System, which should have been, in principle, the central coordinating body for statistical data.

### **Current Statistics**

The National Statistics System is in charge of ongoing data collection. It is made up of the Statistics and National Accounts Directorate (under the Ministry of Economics and Finance) and decentralized agencies under technical ministries. The Statistics and National Accounts Directorate was assigned several objectives, which are shared by the centralized agencies of the technical ministries in charge of collecting sector statistics, including to:

- Design, conduct, process, and analyze statistical surveys;
- Establish full economic counts of the country;
- Coordinate statistics work;
- Compile, publish, and disseminate current statistics; and

- Assist in the implementation and development of socioeconomic data collection, processing, publication, and dissemination at the regional and subregional levels.

A national statistics committee was instituted to ensure the harmonization of statistical observation methods as well as the centralization and compilation of data at the national level.

Several data collection operations on household living conditions were carried out under these institutional arrangements: the National Budget-Consumption Survey, whose urban phase took place in 1989/90 and whose rural phase took place in 1992/93; the business-cycle survey of agriculture and animal husbandry of 1993, the permanent economic and social surveys of 1994 and 1995, and the survey on the informal sector of 1995. These interventions helped sketch Niger's poverty profile and evaluate the importance of the informal sector in the national economy.

These operations were carried out under the African Program to Establish a Household Survey Mechanism (known as PADEM). The completion of this program coincided with the growing scarcity of national financial resources and the reduction in international financing for government agencies, which prevented continued statistical data collection. The national workshop on poverty statistics held December 4–7 2001, also highlighted the coordination difficulties of the National Statistics Committee and the ineffectiveness of the National Statistics System due to a lack of resources and institutional problems.

The poor performance of the National Statistics System, quantitative and qualitative gaps in existing data, and international organizations' lack of satisfactory collaboration with government structures in collecting, compiling, and analyzing data have prompted the inclusion of reform of the statistical system in PRS implementation.

### Annex 3. Proximate Determinants of Fertility

Fertility levels are the result of many determinants. Generally, a distinction is made between socioeconomic determinants and proximate determinants. Socioeconomic determinants, also called intermediary determinants, basically include infant mortality levels, education levels, income, and the role and status of women in society. They influence fertility but do not control it directly.

Bongaarts (1982) and Bongaarts and Potter (1983) were the first to analyze and record the effect of proximate determinants, which are the behavioral and biological determinants that control fertility directly. Bongaarts established a relationship between the total fertility rate (TFR) and the rates reflecting the effect of proximate determinants that inhibit or reduce natural fertility, which is generally much higher than actual fertility. The model has the following basic equation:

$$\text{TFR} = C_m * C_i * C_a * C_s * C_c * F_n.$$

In this formula,  $C_m$  is the marriage indicator,  $C_i$  the postpartum infecundability rate,  $C_a$  the abortion rate (generally deliberate),  $C_s$  the sterility rate, and  $C_c$  the contraception rate (both modern and traditional).  $F_n$  expresses natural fecundity. The *total fertility rate* is the fertility observed within the population (average number of children per woman). This rate is calculated as a function of the inhibiting effect of proximate determinants on fertility. Each indicator  $C$  varies from between 1 (maximum value) and 0 (minimum value). When the indicator is 1, the inhibiting effect of this proximate determinant is zero; however, if the indicator is 0, the inhibiting effect is total. For example, the indicator  $C_c$  for contraception is 1 if no couple uses contraception, and 0 if all couples use it. If even one  $C$  indicator is zero, the total fertility rate will also be zero. If all the  $C$  indicators are equal to unity, the total fertility rate will equal  $F_n$ .

Thus, the total fertility rate can be expected to go down when the marriage level goes down, and levels of breastfeeding, abortion, postpartum infertility, and contraceptive use increase. This formula also reveals that some programs, such as IEC or contraception programs can have an important effect on the total fertility rate. In developing countries like Niger, where marriage is early and almost universal, the use of contraception and recourse to abortion are low, and the greatest fertility-inhibiting factor is postpartum infecundability, linked in large part to long nursing periods and postpartum abstinence.

An in-depth analysis of the proximate determinants of fertility in Niger was made in 1994 on the basis of data from the first DHS in 1992 (Moreland and Guengant, 1994). The total fertility rate observed in 1992 (7.4 children per woman) was associated with a very high marriage rate ( $C_m = 0.915$ ), a very low contraception rate ( $C_c = 0.970$ ), and a very high postpartum infecundability rate (calculated using average duration of breastfeeding) ( $C_i = 0.593$ ). This analysis confirms that in Niger, the only sizable inhibiting factor is postpartum infecundability, considering the prevalence of marriage (85 percent of women are in married relationships union) and the scarcity of contraceptive practice (only 4.4 percent of women used contraception in 1992, of which 2.3 percent used modern methods). The DHS carried out in 1992 and 1998 and the other surveys from 2000 (MICSS II) show that fertility levels remained stable during the past 15 years: the total fertility rate was 7.4 in 1992 and 7.5 in 1998. The 2000 MICSS does not give a fertility level. The same trend can be observed for contraceptive prevalence, which remained very modest during this period. In 1998, only 7.6 percent of women of childbearing age used contraception, and only 4.4 percent used modern methods. The fact that fertility levels have not varied and that contraceptive use has changed little suggests that Bongaarts' indexes also did not change significantly between 1992 and 1998.

Indeed, the 1998 DHS shows that 89 percent of women aged 45–49 were married, and that only 0.2 percent had never been married at that age. For all women of childbearing age (15–49), 84.2 percent were married, and only 11.2 percent were single. For all women of childbearing age, the median age for first sexual relations is about 15. Only 10.2 percent of women were not sexually active at the time of the survey in 1998: the marriage rate ( $C_m$ ) can therefore be estimated at 0.915. The median length of postpartum infecundability was 16.2 months, compared to an average length of 16.6 months in 1998: the  $C_i$  rate can therefore be estimated at 0.593. The abortion rate ( $C_a$ ) is estimated at 1.0 considering the fact that abortion remains strictly forbidden in Niger. Of course, clandestine abortions are carried out, in urban areas especially, but these are probably statistically insignificant and quantitatively undetermined because of the legal consequences that practitioners could suffer. For all women of childbearing age, only one out of five had not yet had a child. Two-thirds of these women were 15 to 19 years old and had just begun their sexual life. To better understand sterility, it is therefore necessary to consider women who had reached menopause without having had a child. This category (45–49 years of age) represents 5.6 percent of women, and only 4.5 percent if women who were married at the time of the DHS of 1998 are taken into account: the sterility rate ( $C_s$ ) can therefore be estimated at 0.994 (as in 1992). Still in 1998, contraceptive prevalence was only 7.6 percent; 4.4 percent of women used modern methods of family planning. Ninety percent of women of childbearing age used no method of contraception in 1998. Contraceptive use concerns mainly single women, which make up 50.8 percent of users. These indicators show that at the national level contraceptive prevalence is very low, thus giving a contraception rate ( $C_c$ ) of 0.970. Moreland and Guengant (1994) estimated natural fertility ( $F_n$ ) at the national level at 14.1 children per woman at the end of reproductive life. At the current rate of progression of contraceptive use, approximately 0.5 points per year in the best of cases, fertility regulation by all women of childbearing age, which is already a reality in many developing countries (and that corresponds to contraceptive use by 70 to 80 percent of married women), could take more than 100 years in Niger.

These findings essentially reflect the low use of contraception in rural areas, which according to preliminary census data, in 2001 still were home to 84 percent of the total population. Significantly different results were found in urban areas, however. In Niamey, more than one married woman out of four used some kind of contraception method in 1998, mostly modern methods. In the country's other cities in 1998, about one married woman out of five used a contraceptive method, again mostly modern methods.

Analysis of the proximate determinants by area of residence based on the 1992 survey findings indicated that in Niamey, the inhibiting effect of postpartum infecundability was considerably lower than in rural areas and that it was equivalent to the effect of marriage, less frequent in the capital than the rest of the country. Furthermore, in 1992, the inhibiting effect of contraception in Niamey (with a contraceptive prevalence rate of 21.8 percent) was not negligible. The increase in contraceptive use between 1992 and 1998 (and probably between 1998 and 2000) leads to the conclusion that today lower frequency of marriage in Niamey, non-negligible contraceptive use, and still-high postpartum infecundability have approximately equivalent inhibiting effects on fertility: This would explain the large difference in the total fertility rate between Niamey and rural areas. In other towns, according to analysis of 1992 data, postpartum infecundability had the greatest inhibiting effect, but the inhibiting effects of marriage and contraception were a little greater than in rural areas. The increase in contraceptive use observed in the other towns between 1992 and 1998 indicates that the effect of contraceptive use on fertility is rising.

Taken together, these data suggest that trends in contraceptive use (traditional and modern methods combined) during the past 10 years in Niamey and other towns is somewhat encouraging, even if fertility levels in 1998 were still higher than 5 children per woman. In rural areas, however, low levels of contraceptive use, combined with universal marriage, lead to very high fertility levels, in the order of 8 children per woman, despite long periods of postpartum infecundability.

## Annex 4. What Will Niger's Population Be in 2050?

Three institutions regularly make population projections for every country in the world, including Niger: the United Nations (Population Division), which publishes three population-trend scenarios every two years for each country, the U.S. Census Bureau, and the World Bank, which updates its projections (one scenario) annually. Five recent population projections for 2050 are currently available for Niger—the three 2002 U.N. variant projections (high, medium, and low) and the most recent projections of the U.S. Census Bureau and the World Bank.

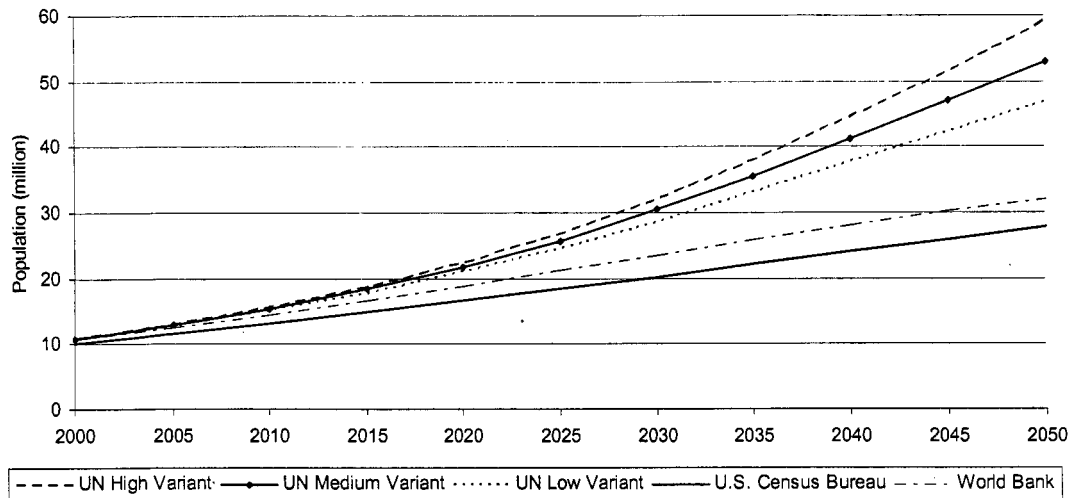
Although they start with similar estimates of Niger's population in 2000 (between 10.2 million and 10.8 million inhabitants), these projections arrive at very different figures for 2050 (and even for 2020) (see Table A4.1 and Figure A4.1). The U.S. Census Bureau's population forecast for 2050 of 27.75 million inhabitants is approximately half the U.N. forecast for its medium variant (53 million inhabitants). World Bank projections (32 million inhabitants in 2050) are slightly higher than those of the U.S. Census Bureau, but much lower than the findings of the three United Nations projections, which are 59 million for the high variant, 53 million for the medium variant, and 47 million for the low variant.

**Table A4.1. Nigerien Population Projections, Various Sources, 2000–2050**

Year	United Nations Variant			U.S. Census	
	High	Medium	Low	Bureau	World Bank
2000	10,742	10,742	10,742	10,174	10,832
2005	12,873	12,873	12,787	11,666	12,578
2010	15,512	15,388	15,133	13,220	14,470
2015	18,684	18,317	17,825	14,844	16,559
2020	22,387	21,731	20,941	16,575	18,818
2025	26,748	25,722	24,527	18,386	21,170
2030	31,877	30,337	28,576	20,242	23,519
2035	37,797	35,521	32,996	22,116	25,783
2040	44,417	41,145	37,644	23,996	28,010
2045	51,559	47,031	42,343	25,878	30,126
2050	59,088	53,037	46,937	27,750	32,076

Sources: United Nations, 2002; U.S. Census Bureau data; and World Bank data.

**Figure A4.1. Population Projections for Niger, Various Sources, 2000–2050**



Sources: United Nations, 2002; U.S. Census Bureau data; and World Bank data.

For mortality, the lowest life expectancy at birth for the 2000–2005 period (given here for both sexes) is the 42.22 years used by the U.S. Census Bureau, compared to 44.24 years for the World Bank and 46.2 years for the three projection variants of the United Nations (which all use the same mortality variable). For the 2045–2050 period, World Bank projections are the least favorable, with a life expectancy at birth estimated at 56.6 years, followed by the U.S. Census Bureau projection (59.55 years) and the U.N. projection (65.4 years) (see Table A4.2 and Figure A4.2). Furthermore, the United Nations assumes a linear evolution of life expectancy at birth in the next 50 years, while the U.S. Census Bureau projects a leveling off of life expectancy at birth in the next 15 years (no doubt tied to the expected expansion of the HIV/AIDS epidemic), then growth in life expectancy, which thus exceeds the life expectancy projected by the World Bank for 2045–2050 by three years. U.N. projections use a lower mortality rate, which explains in part why population figures from the United Nations for 2050 are higher than those from the U.S. Census Bureau and the World Bank.

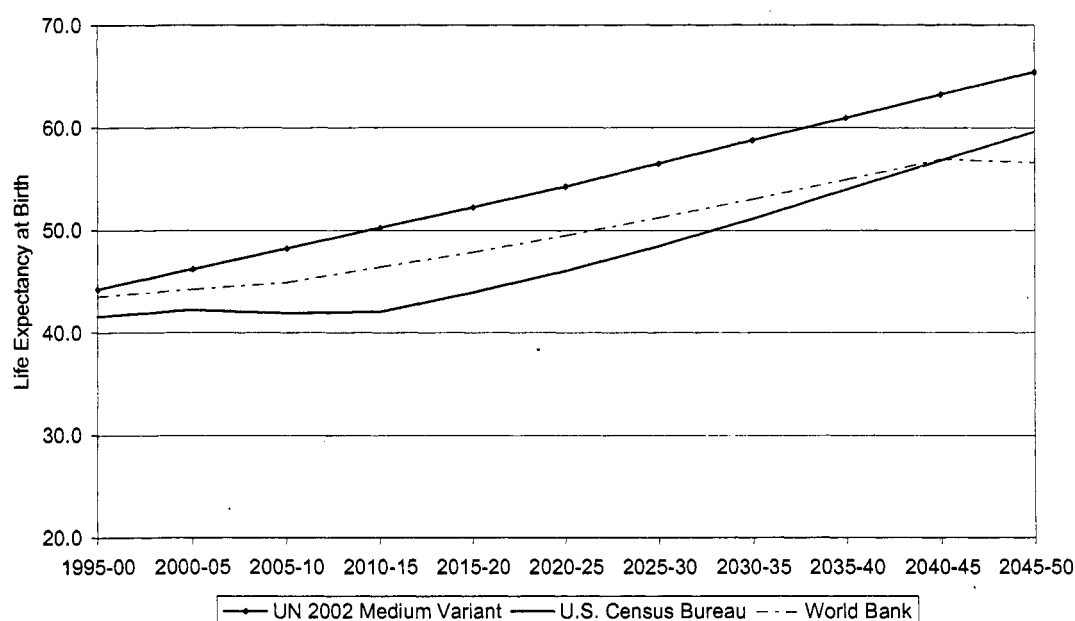
**Table A4.2. Mortality Scenarios for Niger, Various Sources, 1995–2050**

	U.N. Medium Variant	U.S. Census Bureau	World Bank
1995–00	44.2	41.52	43.50
2000–05	46.2	42.22	44.24
2005–10	48.2	41.88	44.90
2010–15	50.2	42.06	46.41
2015–20	52.2	43.89	47.84
2020–25	54.2	46.01	49.47
2025–30	56.4	48.42	51.19
2030–35	58.7	51.06	52.99
2035–40	60.9	53.87	54.89
2040–45	63.2	56.74	56.89
2045–50	65.4	59.55	56.58

Sources: United Nations, 2002; U.S. Census Bureau data; and World Bank data.



**Figure A4.2. Mortality Scenarios for Niger, Various Sources, 1995-2050**



Sources: United Nations, 2002; U.S. Census Bureau data; and World Bank data

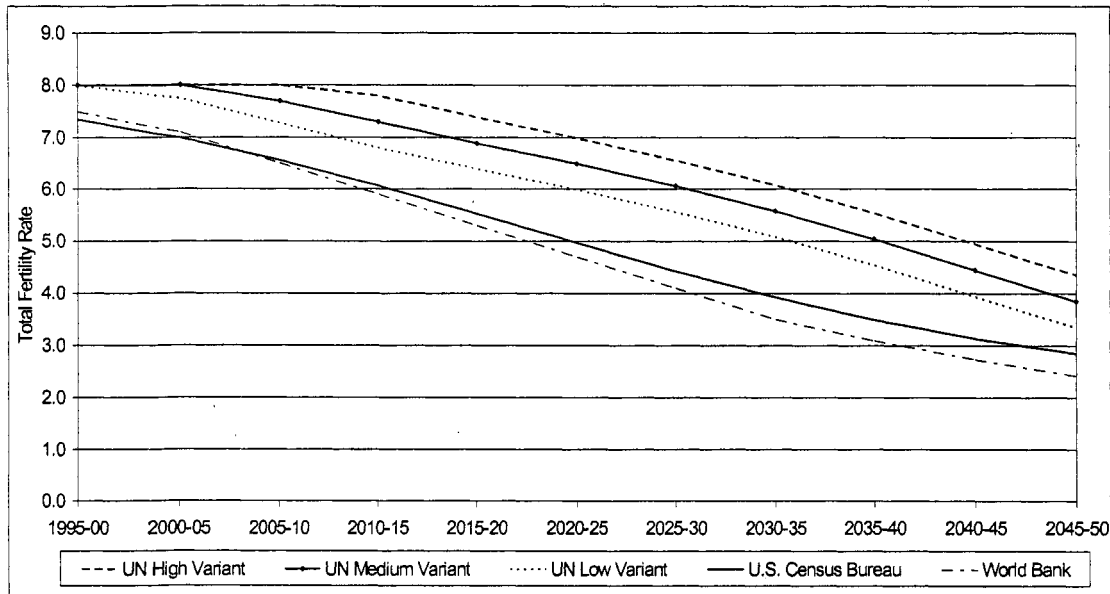
But it is the differences in the assumptions about fertility that explain most of the difference in projections for 2050. There are three differences: the beginning date for the decline in fertility; the fertility rate assumed for the 2000–05 period; and the speed of fertility decline (Table A4.3 and Figure A4.3). In the U.N. variants, the decline in fertility begins only after 2000—2000–05 for the low, 2005–10 for the medium, and 2010–15 for the high variant. The last known fertility rate is the one from the 1998 DHS: 7.5 children for the 1993–98 period. Comparing the findings of the 1992 and 1998 DHS, the United Nations estimated that fertility was probably 8 children per woman during 1995–2000. The World Bank assumed the 1993–98 level for this period and also that fertility would begin to decline during 2000–05 period, as in the U.N. low variant. The U.S. Census Bureau, which uses a fertility level of 7.35 children for the 1995–2000 period (which is lower than the last known level), seems to have assumed a decline in fertility beginning in the late 1990s.

**Table A4.3. Various Fertility Scenarios for Niger, 1995–2050**

	UN Variants			U.S. Census Bureau	World Bank
	High	Medium	Low		
1995–00	8.00	8.00	8.00	7.35	7.50
2000–05	8.00	8.00	7.75	7.00	7.10
2005–10	8.00	7.70	7.28	6.56	6.50
2010–15	7.80	7.30	6.80	6.07	5.90
2015–20	7.39	6.89	6.39	5.53	5.30
2020–25	6.99	6.49	5.99	4.97	4.70
2025–30	6.56	6.06	5.56	4.42	4.10
2030–35	6.08	5.58	5.08	3.93	3.50
2035–40	5.54	5.04	4.54	3.49	3.09
2040–45	4.94	4.44	3.94	3.14	2.73
2045–50	4.35	3.85	3.35	2.85	2.42

Sources: United Nations, 2002; U.S. Census Bureau data; and World Bank data.

Figure A4.3. Various Fertility Scenarios for Niger, 1995–2050



Sources: United Nations, 2002; U.S. Census Bureau data, and World Bank data

How can such differences in projections, which are rare, be explained? The reason must be sought in the assumptions made for both mortality and fertility by each institution.

Regarding the rate of fertility decline, the United Nations assumes for those countries that have just experienced a decline in fertility, or that are about to do so, a normative reduction in the total fertility rate of approximately 0.5 children every five years (or one child per decade in the medium variant), which conforms to observations made in the developing world in the past 30 years. Thus, it reaches a total fertility rate of 3.85 children per woman by 2045–2050 (medium variant). Also in a normative manner, the high and low variants are supposed to “shift” in relation to the medium variant by 0.5 child—up for the high variant, and down for the low variant—which leads to total fertility rates of 4.35 and 3.35 children per woman respectively for the two variants during 2045–2050. U.S. Census Bureau projections assume a fertility decline at about the same pace (0.5 children per five-year period) but at a slightly faster rate. Thus; because the decline started earlier, the rate slows at the end of 2045–2050, when the total fertility rate is supposed to equal 2.85 children per woman. World Bank projections assume an even faster decrease in the total fertility rate (0.6 children per decade until 2030) then a slowing of the decline (to arrive at less than 2.5 children per woman for the 2045–2050 period).

These elements raise various problems that warrant closer examination. The first concerns the difficulty of establishing levels and trends for fertility and mortality in countries where the only available data are from surveys that are more or less numerous, recent, and reliable. The second problem is linked to the difficulties of taking the particular situations of each country (date of the beginning of the decline in fertility, for example, or propagation of the HIV/AIDS epidemic) into account in projections made at the worldwide level. The third problem is the relevance of past trends in predicting future trends (i.e., will future fertility declines and extended contraceptive use in Sub-Saharan Africa be more or less the same as, or faster or slower than, those recorded mainly in Asia and Latin America in the 1970s and 1980s?).

In terms of data available on Niger, findings of the two DHS of 1992 and 1998 highlight high fertility and low contraceptive use. Furthermore, the MICSS 2000 suggests stagnation in the rate of modern contraceptive use between 1998 and 2000, a troubled period in Niger. It is therefore unlikely that fertility has really begun to decline in Niger in the past few years. Furthermore, the current weakness of awareness-raising activities (public as well as private) on population and reproductive health issues lead to the conclusion that fertility might well remain at its current, high level for a while, unless strong public or private initiatives are implemented

rapidly. Regarding HIV/AIDS, the national survey on seropositive status carried out in 2002 indicates a rate of 0.87 percent in the country's adult population, which is the lowest recorded rate in Sub-Saharan Africa. In terms of these data, therefore, the medium variant of the United Nations appears from an empirical viewpoint to correspond most accurately to current circumstances in Niger.

Regarding the pace of the future decline in fertility, some have put forward the hypothesis—after the first declines recorded in Sub-Saharan Africa in the 1990s—that African countries, the last to achieve fertility transition, could catch up by making faster transitions. Survey data from the late 1990s and early 2000s seem to negate this hypothesis. In fact, the currently proposed hypothesis of a decline in fertility of 0.5 children per five-year period (or of one per decade) also appears optimistic. For this to occur, contraceptive use would have to spread rapidly (associated with a more or less greater recourse to abortion). From this point of view, therefore, the three hypotheses put forward for the population of Niger appear to err on the side of optimism rather than pessimism.

Beyond these speculations, the stakes involved in these projections must be underlined. When data are rare and their limits not always well understood, estimates and forecasts are often regarded as certainties. Thus, stating that Niger's population could multiply two-and-a-half times in the next 50 years (as the U.S. Census Bureau predicts) or five times (according to the medium variant projection of the United Nations) is not a neutral statement and does not have the same effect. So it is urgently necessary to establish new population projections at the national level. It is also necessary for the economic and social stakes—and the political choices associated with these projections—to be explicitly spelled out.

## **Annex 5. Lessons Learned from the Population Project**

The Population project financed by the World Bank began operations December 1, 1992, with a budget of US\$17.6 million (1992 equivalent), of which US\$7.2 million was not used, and closed December 31, 1997. Several lessons can be learned from the design, planning, and execution of the project.

### **Design and Planning**

#### *Objectives and Indicators*

Objectives and indicators must be clearly defined from the start. They must be based, to the extent possible, on a thorough knowledge of the situation—hence the importance of the reliability of baseline data. The objectives must be modest enough to be achieved during the life of the project.

#### *Monitoring and Supervision*

Complex projects executed by several ministries require monitoring and supervision systems that are capable of handling and resolving constraints to ensure effective execution within the specified time frame. Such systems should also conduct ongoing assessments of strategies, modify or revise objectives, and reorient priorities to adapt to a changing environment.

#### *Actors*

The key actors, including beneficiaries, service providers, local authorities, NGOs, and the main development partners active in the sector, should be identified from the beginning of the project and involved in every stage—design, choice of targets and indicators, execution, management, and evaluation.

#### *Cost*

A lower-cost approach, emphasizing ownership and minimizing the burden of operating costs on project/program investments, should be followed during project design and the calculation of costs.

#### *Evaluation*

A wider and more rigorous evaluation of institutional capacities would have made it possible to modify the project concept and introduce interventions to lighten the burden and to strengthen the capacities of these institutions.

#### *Sustainability*

The sustainability of investments, from design to implementation, should have been the main guideline for the project. This would have helped avoid last-minute crises at project closing.

### **Execution**

#### *Management and Capacities*

Inadequate management and institutional capacity on the part of the Ministry of Social Development was shown to be a greater obstacle to good performance in the sector than resource availability. To improve the effectiveness of government initiatives to resolve population issues, more effort must be made to strengthen capacities for activity coordination, resource management, and decentralized strategic sector management execution.

### *Delegation*

Excessively centralized project execution prevented the project from benefiting fully from the expertise and perspectives of local authorities, executing parties, and other actors. Any support to social development initiatives must inform and involve local actors. Project design—and primary responsibility for its execution—must be delegated to the local level. Thus, interventions will better correspond to local priorities and needs. This will also enable greater ownership of project objectives and activities, thus significantly improving potential sustainability.

### *Planning and Evaluation*

Greater compliance with the annual planning and evaluation process as called for in the project design would have facilitated greater effectiveness and flexibility in execution, which would have allowed for consideration and management of opportunities and emerging constraints during project execution.

### *Problem Resolution*

Opportunities for identifying and rapidly resolving problems during project execution were missed. The midterm review could have been put to more effective use in this regard, and frequent implementation reports (quarterly or twice-annually) could have contributed to more effective problem resolution.

### *Project Duration*

The original closing date for the project (June 30, 1997), negotiated and accepted in Washington and clearly specified in the development credit agreement cosigned by the government and IDA, should not have come as a surprise to the project executing agency and beneficiaries. On the contrary, it should have been anticipated from the beginning and incorporated into planning so that project activities could be planned and executed accordingly, and so that questions of sustainability and self-sufficiency could be resolved well before the planned closing date (and, of course, the extended closing date). The World Bank and the Nigerien government should have focused more on these questions throughout the project, and especially during the midterm review.

### *Technical Assistance and Monitoring*

Investments for improving the quality of services were not completely used or funded because of a lack of technical support and monitoring, which could have been provided by a well-conceived and well-implemented supervision program.

### *Training*

The absence of monitoring and evaluation of training financed by the project left the Ministries of Health and of Social Development unable to make optimal use of knowledge acquired or to evaluate the usefulness of such training to guide future investment in human resources. A specific focus on supervision and evaluation of training would have helped improve the quality of services.

### *Coordination*

Project coordination mechanisms, which enable better identification and delegation of roles and responsibilities among the various officials and executing agencies, must be improved.

### *Institutional Framework*

The institutional framework for project execution should have been reviewed and revised during implementation to correct the tendency of the project coordination unit to assume more power, grant itself more autonomy, execute instead of coordinate, and consume more resources in some categories than initially planned in both real terms and proportionate project costs.

### *Prevention, Information, and Quality of Service*

A greater focus was needed on the preventive aspects of reproductive health and quality-of-service issues. The adoption of a development plan for the sector in 1994, which clearly defined the entire range of reproductive health services proposed in the MPA, should have served as a springboard for the project: to verify that the MPA was complete and corresponded to the needs and requirements of clients, and to consolidate and strengthen efforts to respond fully to these questions. This would have been an opportunity to review the quality of care in family planning and reproductive health by emphasizing prevention and information, improvement of the quality of primary health care, adequate focus on STI and AIDS issues, the reproductive health of adolescents, sterility, and infertility.

### *Distribution of Roles*

The project did not succeed in significantly strengthening the capacities of the Ministry of Social Development. Support to any future activities to be executed by this ministry should be granted on the basis of a revised mandate as well as a strategy and program drafted by the ministry that would make use of its comparative advantage over other ministries in population and women's rights issues, thus eliminating duplication or competition.

The roles and responsibilities of the various government organizations in coordinating and executing population activities are not clearly defined. The project demonstrated the resulting ineffectiveness. The recent decree putting the National Population Commission under the Prime Minister's office is a positive step towards greater recognition of population issues. It also consolidates the National Population Commission's mandate to coordinate the activities of various ministries. However, greater efforts still must be made to clarify roles and responsibilities so that a population program in Niger that will make the most of the comparative advantages of the various institutions present in the country can be defined and executed.

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