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# **REPUBLIC OF NIGER**

# PRIORITIES FOR ENDING POVERTY AND BOOSTING SHARED PROSPERITY

# SYSTEMATIC COUNTRY DIAGNOSTIC

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#### **REPUBLIC OF NIGER - GOVERNMENT FISCAL YEAR** January 1–December 31

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Currency Unit = CFA Franc (CFAF) US\$1.00 = CFAF 556

#### **ABBREVIATIONS AND ACRONYMS**

3N	Nigériens Nourrissent les Nigériens, Nigeriens feed Nigeriens
ARMP	Agence de Régulation des Marchés Publics, Public Procurement Agency
ARSM	L'Agence de Régulation du Secteur de la Microfinance, The Microfinance
	Sector Regulatory Agency
BAGRI	Banque Agricole du Niger, Agricultural Bank of Niger
BCEAO	La Banque Centrale des Etats de l'Afrique de l'Ouest, Central Bank of the
	States of West Africa
BCG	Bacillus Calmette-Guérin
BRACED	Building Resilience and Adaptation to Climate Extremes and Disasters
CAFER	Caisse Autonome de Financement de l'Entretien Routier, Road Maintenance
	Fund of Niger
CAIMA	La Centrale d'Approvisionnement en Intrants et Matériels Agricoles, Central
	Supply of Inputs and Agricultural Materials
CDV	Contract Development and Verification
CFAF	Franc de Communauté Financière Africaine, Franc of the African Financial
	Community
CGE	Computable General Equilibrium
CNECDD	Comité National Consultatif pour l'Environnement et le Développement
	Durable, National Advisory Committee on Environment and Sustainable
	Development
CNPC	China National Petroleum Corporation
COFO	Commission foncière, Land Commission
CPIA	Country Policy and Institutional Assessment
DGTPC	Direction générale du trésor et de la comptabilité publique, General
	Directorate of the Treasury and Public Accounting
DHS	Demographic and Health Survey
DPT	Diphtheria, Pertussis, and Tetanus
ECOWAS	Economic Community of West African States
EDSN-MICS	Enquête. Démographique et de Santé et à Indicateurs. Multiples du Niger,
	Niger's Demographic and Health Survey with Multiple Indicators
EITI	Extractive Industries Transparency Initiative
EIU	Economist Intelligence Unit
ENBC	Enquête Nationale sur le Budget et la Consommation des Ménages, National
	Household Budget and Consumption Survey

ENISED	Etude Nationale d'Evaluation d'Indicateurs Socio-Economiques et
	Démographiques, National Survey of Socioeconomic and Demographic
	Indicators
FIMA	Festival international de la mode africaine, African Fashion International
	Festival
FINDEX	Financial Inclusion Index
GDP	Gross Domestic Product
HH	Household
HIPC	Heavily Indebted Poor Countries
IBRD	International Bank for Reconstruction and Development
ICARDA	International Center for Agricultural Research in the Dry Areas
ICT	Information and Communication Technology
IDA	International Development Association
ID4D	Identification for Development Initiative
IFC	International Finance Corporation
IIED	International Institute for Environment and Development
IMF	International Monetary Fund
INS	Institut National de la Statistique National Statistical Institute
IRIN	Integrated Regional Information Networks
ISFM	Integrated Soil Fertility Management
ITU	International Telecommunication Union
LASDEL	Laboratoire D'études Et Recherches Sur Les Dynamiques Sociales Et Le
	Développement Local. Laboratory of Studies and Research on Social
	Dynamics and Local Development
LINKAGE	World Bank's Global Dynamic CGE Model
LSMS-ISA	Living Standards Measurement Study - Integrated Surveys on Agriculture
LUCC	Land-Use and Land-Cover Change
MCC	Millennium Challenge Corporation
MDRI	Multilateral Debt Relief Initiative
MICS	Multiple Indicator Cluster Survey
MINUSMA	United Nations Multidimensional Integrated Stabilization Mission in Mali
МОН	Ministry of Health
NIGELEC	Société Nigerienne d'Electricité, Electricity Company of Niger
NGO	Nongovernmental Organization
OLS	Ordinary Least Quares
ONAHA	Office National des Aménagements Hydro agricoles, National Hydro
	Agricultural Development Office
OPVN	Office des produits vivriers, Office of Food Products
PASEC	Programme d'Analyse des Systèmes Educatifs de la CONFEMEN, Program
	Analysis of the CONFEMEN Education Systems
PDES	Plan de Développement Economique and Social, Economic and Social
	Development Plan
PEFA	Public Expenditure and Financial Accountability
PER	Public Expenditure Review
PBF	Performance Based Financing
PFM	Public Financial Management

PIMA	Public Investment Management Assessment
PPP	Purchasing Power Parity
PNDS	Parti Nigerien pour la Democratie et le Socialisme, Nigerien Party for
	Democracy and Socialism
QUIBB	Questionnaire Unifié des Indicateurs de Base de Bien-être, Unified
	Questionnaire of Basic Indicators of Well-being
RESEN	Rapport d'Etat du Système Educatif Nigérien, State Report of the Nigerian
	Educational System
SAM	Social Accounting Matrix
SCD	Systematic Country Diagnostic
SDDEL	<i>Stratégie de Développement Durable de l'Elevage</i> , Sustainable Livestock
	Development Strategy
SDI	Service Delivery Indicator
SPCR	Strategic Program for Climate Resilience Niger
SSA	Sub-Saharan Africa
TFP	Total Factor Productivity
TOR	Terms of Reference
TVA	La taxe sur la valeur ajoutée, Value Added Tax
UNDP	United Nations Development Programme
USAID	U. S. Agency for International Development
UNEP	United Nations Environment Programme
UNFPA	United Nations Population Fund
UNESCO	United Nations Educational Scientific and Cultural Organization
UNISDR	United Nations Office for Disaster Risk Reduction
UNHCR	United Nations High Commissioner for Refugees
WAEMU	West African Economic and Monetary Union
WDI	World Development Indicators
WFP	World Food Programme
WHO	World Health Organization
WRI	World Resource Institute

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## FOREWORD

This document presents the Systematic Country Diagnostic (SCD) for Niger. It identifies, in an empirically supported manner, the core constraints to rapidly reducing poverty and improving shared prosperity by 2030.

The team has tried to be selective in the identification of binding constraints. Public resources (financial means but also capacity) are not available in unlimited quantities and need to be used selectively. Selectivity means the identification of principal opportunities for poverty reduction in the next 15 years, as well as the identification of binding constraints to seizing such opportunities. In the search for selectivity, there is always the risk of not identifying the correct set of constraints. However, the risk of not being selective would probably have more serious implications as it could lead the Government and its development partners to disperse their resources and attention too thinly over too many priorities.

**Selectivity implies making trade-offs between immediate and longer-term objectives.** In this SCD, priority is given to poverty reduction opportunities which could deliver results before 2030. Given the challenges Niger faces, it would be optimistic to assume that poverty will be eliminated by 2030. Reducing poverty to 3 percent will probably require a longer time perspective with concomitant consequences for the selection of priorities, which need to include creating a solid basis for future poverty reduction. As a consequence, investments in very young children, which take more than 15 years to yield a return in terms of raised incomes were still considered; the same holds for investments in urban development, mining, transport corridors, and large-scale power generation, activities with limited direct impact on the poor but critical to gross domestic product (GDP) growth and economic transformation.

This SCD presents binding constraints that can feasibly be addressed. Niger has a complex political economy characterized by low capacity, ineffective institutions, limited resources, and a political settlement that relies, for its survival, heavily on the distribution of privileges and cooptation of opposition members. While this has created stability and security (though the latter is increasingly under threat)—critical prerequisites for development—it has not provided a very conducive environment for poverty reduction. The SCD takes this political reality into account and argues, among others, for the creation of centers of excellence in the central administration and a citizen-centered approach to development activities empowering citizens with information, education, purchasing power (transfers, vouchers), and choice in service providers.

The SCD has given preference to actions that can set in motion positive feedback loops or that can address multiple poverty traps at the same time. Investments in irrigation increase the time in which land and labor can be used productively and reduces dependence on the vagaries of the weather, thus addressing poverty rates associated with a lack of assets, weather risks, and declining soil fertility. A decline in fertility would catalyze a change in age structure resulting in lower dependency ratios, which enables higher investments in health and human capital, leading to higher economic growth and poverty reduction and more resources for future investments in poverty reduction.

The SCD was prepared by a team led by Johannes Hoogeveen (Lead Economist), Aly Sanoh (Economist) of the Poverty and Equity Global Practice, and Luc Razafimandimby (Senior

Economist, Macro and Fiscal Management) in close collaboration with the Program Leaders for Niger, Jose Lopez-Calix, Pierre Kamano, Christophe Lemiere, and Michel Rogy as well as with Siaka Bakayoko (Country Manager), Paul Noumba Um and Soukeyna Kane (Country Directors), and Paola Ridolfi (Country Program Coordinator). Other members of the team included Dahlia Lotayef and Bougadare Kone (Environment); Inoussa Ouedraogo; Aimilios Chatzinikolaou, Kirstin Roster, Sizwe Mdluli, and Olivier Nour (IFC); Conor Healy (MIGA); Michel Mallberg (Governance); Dinar Dhamma Prihardini and Abdoulahi Garba (Macro and Fiscal); Jean-Christophe Maur, Mahaman Sani, and Magueye Dia (Trade and Competitiveness); Brigitte Bocoum and Mamadou Barry (Mining); Fatou Fadika and Marilyne Goncalves (Financial Markets); Jean Baptiste Migraine and Sylvie Debomy (Urban); Daniel Kirkwood (Gender); Emilie Jourdan (Fragility); Kirsten Majgaard and Adama Ouedraogo (Education); Djibrilla Karamoko and Rifat Hasan (Health); Carlo del Ninno and Mahamane Amadou (Social Protection); Manuel Luengo, Charles Joseph Cormier, David Vilar, and Sameer Shukla (Energy); Amadou Ba, Vikas Choudhary, Joanne Gaskell, Yeyande Sangho, Christian Berger and Friederike Mikulcak (Agriculture); Andreas Schliessler and Aguiratou Savadogo-Tinto (Transport); Pierrick Fraval and Aude-Sophie Rodella (Water); Thea Hilhorst and Caroline Plançon (Land); Cheikh Sagna (Social Development); Gina Kosmidou (Consultant) and Fatimata Sy, Salimata Dera, Senait Yifru, Hamsatou Barke, Siele Ketema, and Martin Buchara (Program Assistants). The final document was peer reviewed by Gael Raballand (Senior Public Sector Specialist) and Pierella Paci (Lead Economist) and benefited from guidance from Pablo Fajnzylber and Andrew Dabalen (Managers Africa Poverty and Equity Global Practice), Lars Moller (Manager Macro and Fiscal Management) and the Systematic Country Diagnostic (SCD) advisory group.

The preparation of the SCD benefited from excellent collaboration with the Government of Niger. Consultations were held in May and September 2016.

# **EXECUTIVE SUMMARY**

1. This document presents the Systematic Country Diagnostic (SCD) for Niger. It identifies the constraints and opportunities for achieving the twin goals of ending poverty and improving shared prosperity by 2030 in a sustainable manner while acknowledging (a) the need for selectivity and (b) the need to identify constraints that can feasibly be addressed. The objectives of the World Bank are closely associated with those of the Government of Niger, which aims in its Renaissance Program, to achieve rapid poverty reduction by 2035.

2. Located in the Sahel, landlocked Niger (the closest port, Cotonou, is over 1,000 km away) finds itself at the heart of a turbulent region marked by political and religious violence in northern Nigeria, separatist and armed movements in northern Mali, and intercommunal violence and state collapse in southern Libya. It has affected Niger in important ways, including a state of emergency in the southeastern region of Diffa and an estimated 198,000 refugees and 137,000 internally displaced persons. With a population of 19.9 million in 2015 (World Development Indicators) and a land area of 1.27 million km<sup>2</sup>, Niger is sparsely populated on average. However, most people live in the south of the country (about 12 percent of the land area) where most arable land is located. Niger's significant mineral wealth deposits of uranium, gold, coal, and petroleum generate up to a quarter of all Government revenue and 10 percent of GDP.

3. With a per capita gross domestic product (GDP) of US\$895 in 2015 (constant 2011 U.S. dollar), Niger is among the poorest nations in the world. The vast majority of Niger's 8.2 million poor (2014 estimate) live in rural areas where food insecurity is high. Human development indicators are low. The average level of education is 1.4 years; only 52 percent of children have received a complete set of vaccinations and 44 percent of children under five years are stunted.

4. The economy is undiversified with few indications of structural transformation. Agriculture is the dominant sector in the economy (40 percent of GDP) and sectors such as manufacturing (6 percent of GDP), construction and public works (3 percent of GDP), and production of electricity gas and water (1 percent of GDP) are relatively small and underdeveloped. More than 60 percent of GDP is generated in the informal sector. The share of the secondary sector in GDP did increase over the past 15 years, however, not because of growth in industrial production but due to the expansion of the extractives industry. The tertiary sector generates around 40 percent of GDP. The relatively high contribution of the tertiary sector is not so much the result of the development of a more modern section of the economy as the reflection of the importance of import and export trade and the cost of transportation. Commerce and transport and the public sector represent the most important activities in the tertiary sector with shares of 12 percent of GDP respectively.

5. The majority of the population generates its income from (rain-fed) agriculture and livestock rearing. The Sahara Desert aside, people live in four agro-ecological zones. The first zone is the pastoral zone with rainfall of 100–300 mm per year and a sub-desert climate. It is home, primarily, to transhumant cattle herders. The second is an agro-pastoral zone which receives 300–500 mm of rain per year and is suitable for extensive farming (of millet mostly). Most households in this zone do not produce enough food to feed themselves and engage in goat rearing, casual labor, small trade, and seasonal migration to make ends meet. The third zone (the south-Maradi,

south Zinder and Dosso regions) is characterized by 500-600 mm of rainfall per year and by semiintensive, rain-fed agricultural practices and livestock rearing. Finally, irrigated cash crops are grown in selected areas along the Niger River. Together, the agriculture and livestock sectors engage more than 80 percent of the workforce and account for 40 percent of GDP. Niger's subsistence agriculture is based on cereal crops (millet and sorghum) as well as cow peas, crops that also constitute the staple diet.

6. **Despite opting for drought-resistant crops and transhumant herding practices, Niger's rural population is vulnerable to climatic hazards.** Inadequate yields, poor diversification of incomes, climate change, and increasing pressure on land due to population growth are the reasons why economic and food insecurity persist and why levels of malnutrition are high. Niger is a net importer of food (food is the second most important import good after capital goods). Nigeriens regularly undertake seasonal migration to reduce the pressure for food at home (one less mouth to feed) and to earn some income during the off-season.

7. **Rapid population growth presents a major challenge.** Population growth has reached 3.9 percent per year on account of a high desire for children (7.3 children per women in 2015) and a rapid decline in child mortality. High fertility is associated with large families, high dependency ratios, and low levels of education, factors that are all positively associated with poverty. High dependency ratios reduce the ability to save and invest in human and physical capital, thus perpetuating poverty as families opt to rely more on labor and invest less in the education and health of their children. High fertility has negative consequences for women's health and their nutritional status, as well as that of their offspring. It increases pressures on limited resources (water, fertile land, and forests) and because the population is relatively young, the state is burdened with much higher demands for investments in education and health services than would be the case in a situation of lower population growth.

8. **High levels of fertility in Niger is unique in that the desire for an additional child barely declines with the number of children.** High wanted fertility may appear exceptional but established correlates of fertility decline have been found to be valid for Niger as well. Women in the highest wealth quintile, for instance, tend to have fewer children. Niger's exceptionally high fertility can be explained by low levels of income, little education, and limited access to information and health services. There are also cultural aspects that explain a preference for children. Some of these may be associated with religious interpretations, income risks in the face of poverty, and gender discrimination. Without improvements in these general conditions (risk, human capital, access to health services) and without an active (media) engagement to discuss and challenge established norms, population growth is likely to remain high. The consequences of this may be dire because—depending on the scenario—the population of Niger is projected to increase to about 30–35 million by 2030 and between 67 and 78 million by 2050 (see Figure E.2).

9. **A short rainy season and exposure to uninsured risk presents an enormous burden to the economy.** Niger's economy depends largely on rain-fed agriculture, natural resource exports, and aid. It creates high levels of underemployment, particularly outside the rainy season, and makes the economy vulnerable to weather and price shocks and changes in donor sentiment. It leads to cycles of booms and busts and—in an environment where monetary policy is determined at the regional level (Niger is part of the CFA zone)—limited options for fiscal stabilization other

than by revising the public investment budget. At the household level it leads to risk aversion, slow adoption of new (farming) techniques, huge investments in low-return savings (livestock),<sup>1</sup> and, at times harmful, informal insurance mechanisms such as pressing girls into early marriage (the median age of first marriage for girls is 15 years!).

10. Poverty did decline over the past decade, but benefits from growth were largely captured by better-off households. Poverty declined in all regions. The reduction was more substantive in the capital city and in other urban areas where it declined from 29.6 in 2005 to 8.7 in 2014. In rural areas poverty declined from 58.3 percent to 51.4 percent. Inequality increased during the same period as consumption growth was much higher among better-off households than it was among the poorest. The reduction in poverty was driven by GDP growth that was made possible by favorable exogenous circumstances. Comparatively favorable rainfall in 2014 relative to 2005 explains much of the poverty reduction in rural areas as does the fact that between 2005 and 2014, weather variability was limited and major weather shocks absent. Poverty reduction in urban areas came on the back of the natural resources boom. Uranium prices were favorable and the production of oil came onstream. This boosted the Government's budget and its ability to make public investments (15 percent of GDP in 2016)—including major infrastructural investments in the capital city, which in turn helped reduce poverty.

11. **Multiple poverty traps make poverty reduction a challenge.** The most destitute farmers possess too few assets (land and animal traction) or are too much in debt to earn incomes that bring them above the survival threshold where they can save and invest themselves out of poverty. Instead they are often obliged to work on other people's land to repay outstanding debts and unable to bring sufficient land under cultivation to feed themselves through own-account farming. It explains the noteworthy observation that only the less poor farmers are able to feed themselves from own production, while the poorest are net buyers of food and dependent on income from casual labor and gifts to make ends meet. There are numerous other traps related to ill-health, low soil fertility, conflict, or cultural and gender practises. These impoverishing factors lead to low incomes which in turn prevent these factors from being addressed, thus leading to self-perpetuating cycles of poverty. Evidence of the prevalence of poverty traps can be inferred from references to increasing landlessness, the formation of a class of medium-scale farmers who purchase land from distressed peasants and the prevalence of acute malnutrition (a sign of food shortages) among the poorest—even during non-drought years.

12. While multiple poverty traps have to be addressed simultaneously to lift households out of poverty, certain measures address more than one trap. Irrigation offers much promise. By lengthening the growing season, increasing yields per acre and by reducing exposure to weather risk, irrigation addresses multiple poverty traps associated with low labor productivity, poor nutrition, inadequate assets, and weather risk. By increasing incomes through irrigation—in combination with activities that induce behavioural change (adult literacy training, access to information, village health workers, extension)—one can also expect to have positive spillover

<sup>&</sup>lt;sup>1</sup> The value locked up in livestock savings is enormous. The INS (2015: Tableau de Bord) estimates that in 2013 there were 14.3 million goats, 10.7 million sheep, and 10.1 million cattle. Conservatively valued at US\$70, US\$70, and US\$250, respectively, the value these animals represent is the equivalent of 60 percent of GDP.

effects on fertility, hygiene, nutrition, and resilience to climate change through the adoption of adapted farming techniques.

13. **Options for industrialization are limited by the size of the domestic economy, an adverse business environment, and low levels of embedded technological knowledge.** Agriculture is expected to remain the dominant sector in the economy even though the share of the secondary sector in GDP is on the rise. The scope for rapid industrialization through importsubstitution is limited by the small size of the domestic market, which reduces the scope for specialization. The scope for industrialization through an export-led growth strategy is reduced by high transaction costs as a result of an adverse business environment and the lack of productive knowledge that is embedded in the economy. The latter can be inferred from the products which are presently exported: unsophisticated products (minerals mostly) that are unconnected to other products in the global product space.<sup>2</sup> This leaves open the option of industrialization through the transformation of agricultural produce; yet, to do this successfully, the cost of doing business will need to decline.

14. **High costs of doing business obstruct Niger's development prospects.** Being landlocked and far from the nearest seaport, combined with low levels of human capital, present formidable obstacles to developing a vibrant private sector. These disadvantages are made worse by elevated costs of doing business. Transport costs are unnecessarily high because roads are not maintained, roadblocks are common, and competition in the trucking sector is limited. Electricity is costly and unreliable. Cross-border trade is expensive and inefficient due to the difficulty of obtaining import and export licenses. Meanwhile, high import tariffs and levels of taxation drive many toward informal trade. Telecom services are costly and grossly inadequate, as are banking services. The regulatory burden is high, the tax system is complex, and the judicial system is biased. Except for a few firms that exploit natural resources in enclave activities and some large firms run by well-connected entrepreneurs, it makes for an unattractive investment climate for domestic as well as foreign entrepreneurs and a very large informal sector.

15. **Managing regional relations is an integral part of economic policy making in Niger.** Being landlocked and located in a turbulent region makes good relations with its neighbors critical for Niger's development prospects. There are many elements to this: Niger's exports are largely dependent on the efficiency of the transport system in neighboring countries with access to the sea, while much of Niger's informal trade in fuel and foodstuffs depends on the economic policies of its neighbors, Algeria and Nigeria in particular. Most of Niger's electricity comes from Nigeria while most of Niger's livestock are exported to Nigeria. This trade, as well as much of Niger's re-exports to Nigeria and remittances from Nigeria have been seriously affected by the devaluation of the naira and by the ban on import of certain products (rice, meat), demonstrating on the one hand the symbiosis between the two economies and on the other the difficulty of being part of a currency zone (the West African Economic and Monetary Union [WAEMU]) of which the main

<sup>&</sup>lt;sup>2</sup> See Hausmann and Klinger (2006). Structural Transformation and Patterns of Comparative Advantage in the Product Space downloadable from http://ksgnotes1.harvard.edu/Research/wpaper.nsf/rwp/RWP06-041 and Hidalgo et al. (2007) The Product Space Conditions the Development of Nations. *Science* 317, 482 (2007); DOI: 10.1126/science.1144581.

trading partner is not a member. Being downstream of the Niger River implies dependence on Mali and Guinea for the quantity of water that arrives and its quality.

16. **Rural-urban migration is potentially an important driver of growth and poverty reduction.** Labor shifting from the relatively unproductive agricultural sector, with high levels of seasonal underemployment, to urban areas where one can be productive year-round is a potential source of growth. Moreover, increased urbanization is known to accelerate growth because of the scope for specialization and have positive spillover effects for rural growth by increasing demand for agricultural produce and by providing cash and knowledge for productive investments in rural areas. To date, this has not happened. Niger remains barely urbanized and as late as 2014 more than 90 percent of the rural population lived in the same village where they were born. Reductions in poverty have been driven by internal dynamics in urban or rural areas. Between 2005 and 2011, and of the total 5.5 percentage point decline in poverty, only 0.14 percentage point was due to rural-urban migration.

17. Niger's development challenge can be illustrated by comparing the characteristics of jobs of the self-employed in agriculture (81 percent of all jobs) with those in paid jobs in the formal sector (4 percent of all jobs). Jobs in agriculture tend to be 'bad' jobs: returns are low, rarely are they permanent, underemployment is high as is the fraction of people with a secondary job. The reverse holds for the wage employed. Though they are few in number, their jobs are of much better quality, being mostly permanent, with limited underemployment and often being formal. People engaged in wage employment are also much more likely to receive health benefits. Therefore, to reduce poverty it would be desirable if many more people became engaged in wage employment. At the same time, it is unlikely that a sector that presently employs some 4 percent of the population will be able to absorb the 81 percent that are currently primarily engaged in agriculture.

18. Productivity needs to increase and the process of growth needs to become more inclusive. A growth accounting exercise demonstrates that increases in labor account for most of the growth in Niger, followed by increases in the capital stock. This is in line with the country's high population growth and, more recently, increases in public and private investments. There is, however, little embedded technical change in these investments and total factor productivity (TFP) is still catching up from a large decline in 1980. Other components, particularly changes in human capital, play a much smaller role in explaining growth. The latter is unsurprising given the low quality of education. To increase productivity, and hence household incomes, investments in human capital will be needed to improve the quality of this key factor of production. The business environment will need to improve to increase the rate of return to investments. This alone will not be sufficient. The growth process also needs to become more pro-poor. Between 2005 and 2014 per capita consumption growth rate was 0.4 percent for those in the bottom 40 percent; much less than the growth rate attained by those in the top sixty percent (2.7 percent). Investments in infrastructure and the natural resources sector (the drivers of the investment boom) alone are insufficient to generate an inclusive growth process.

19. The most promising approach to inclusive growth is by increasing productivity in the short run and engaging in a process of classical structural transformation. One clear message from the consultations held in September 2016 was that improvements in the business environment

for formal and informal enterprises and the way in which the public sector is managed could immediately unlock much economic potential by stimulating private sector activity or by increasing the efficiency of public investments and service provision. In the longer run, a process of classical structural transformation could accelerate poverty reduction. This process starts by increasing the productivity of agriculture (food stapes in particular) and livestock rearing. Increases in agricultural production help suppress (fluctuations in) food prices, which is good for the poorest who tend to be net buyers of food. Once the share of food consumers relative to food producers grows (because of rural-urban migration), markets become more important, the nonfarm and agribusiness sectors grow, and the food value chain and rural-urban linkages are strengthened. As rural incomes grow, second-order effects are likely to emerge: the stock of human and physical capital increases as households invest part of their increased incomes in their offspring. This leads to further productivity gains and to out-migration of (now better-) educated people. It also unlocks demographic transition, in part because higher incomes and higher levels of education induce women to marry later, while increased irrigation and mechanization reduce exposure to weather shocks and reliance on family labor.

20. Niger has a complex political settlement with multiple actors balancing each other's interests (and power) in a dynamic but relative stable equilibrium. The ruling coalition changes regularly, co-opting new power brokers and sidelining others leading to high levels of turnover in the administration. Since gaining independence in 1960, Niger has had no less than seven republican regimes and four military coups. Among the core power players are the military; a group of lifetime politicians; powerful traders; and selected traditional leaders, sheikhs, and religious leaders. This 'political class' is sustained by a very poor, uneducated, and uninformed population who seek protection against poverty and shocks. As a consequence of the dynamic nature of the political settlement, politics is at times turbulent but rarely violent.

21. The political settlement casts a shadow over Niger's development prospects. Not only are incentives in the public sector not aligned with poverty reduction, the scope for change is limited. Rent seeking, clientelism, and impunity are endemic as the competitive political settlement and personalized bargaining among elites uses payoffs as means for co-optation. It ensures a certain stability but also leads to a non-inclusive development model that is non-idealogical and geared towards generating benefits to insiders. It explains a preference for capital-intensive investments by the public sector such as in main roads, dams, large irrigation schemes and oilrefineries as opposed to investments in agricultural extension, small scale irrigation or rural electricifation. It explains the large informal sector as the economy is dominated by a small number of public and private monopolies who prefer to restrict competition in their respective domains. It gives rise to an adverse business environment with high transaction costs which can be avoided by remaining informal, or by becoming large and well-connected. It also leads to an inefficient administration with many ministries and with burdensome procurement procedures. And it leads to economic exclusion and inefficient and very low quality service delivery in health and education.

22. The analytical framework used to identify binding constraints starts from the notion that to reduce poverty, household consumption has to increase. This can be achieved, for the given income, by ensuring that consumption goods—food especially—becomes cheaper as happens when food production increases. Alternatively, the household budget constraint can be

lifted by increasing the incomes of self-employed households, enhancing opportunities for wage employment, or redistributing income from the nonpoor to the poor. Key environmental factors affecting whether households can indeed obtain the fruits from their labor and investments are exposure to risk (much of it weather risk); population (dependency ratios, gender practices); and the overall governance environment which is understood to include the institutional environment but also macro-economic governance, public finanancial and debt management and the business environment. The various elements of the analytical framework are presented in Figure 6.2.

23. **Opportunities to increase incomes of the self-employed lie largely in increasing the productivity of agriculture.** Once incomes in agriculture increase, opportunities for off-farm activities can be expected to increase as well. The scope to increase agriculture productivity is enormous. Limited access to irrigation leads to underemployment, low land productivity, and exposure to weather risk. Farmers continue to rely heavily on the use of simple tools (hoes, cutlasses, and spades) and techniques (manual weeding, hoeing, and harvesting), resulting in a huge yield gap. Even if only half of the potential yield for rain-fed farming were to be attained, millet yields would quadruple and sorghum yields almost 10-fold. Among the many reasons for low yields, the immediate causes are soil degradation and the limited reliance on improved (let alone hybrid) seed and other inputs (fertilizer, pesticide). Limited access to extension advice and market interferences which reduce competition are also important obstacles to increasing farm productivity.

24. **Policies that lead to increased production of food crops consumed by the poor (millet, sorghum, and cowpeas) are particularly attractive for poverty reduction.** Increasing the productivity of these crops offers three ways to poverty reduction: through increased production (increased incomes); lower food prices (important for the rural poor who purchase food but also for the urban poor); and increased demand for wage labor by commercial farmers.

25. There exists great potential for irrigation using groundwater. A back-of-the-envelope calculation using information on the presence of aquifers suggests that at least 250,000 ha is irrigable.<sup>3</sup> As yields may increase to 6,000 kg if rice were cultivated, and two harvests a year could be obtained, 250,000 ha could sustain a population of 48 million (exclusively rice eating) people.<sup>4</sup> Irrigation thus has the potential to increase incomes in the short run, reduce vulnerability to weather shocks, and avoiding a potential imminent Malthusian crisis as a result of high population growth and dwindling access to fertile land. Successful irrigation does not necessitate investments in largescale infrastructure. A plot of 2,500 m<sup>2</sup> can be irrigated by a solar pump presently marketed in Kenya for approximately US\$500. It is sufficient to feed a family of 48 people for an entire year. Clearly there would be general equilibrium effects to consider if such a large scale program were to be executed. Prices could drop considerably for instance which despite increased production could have a negative impact on farmer income. A drop in income could be avoided if an irrigation policy is accompanied by a market access (export) strategy and/or the development of value chains for other produce. In that scenario, the (now lower) decine in prices and increased demand for wage labor would be very beneficial for poor people who are net food buyers and those who

<sup>&</sup>lt;sup>3</sup> That is, the water table is at less than 8 m below the surface, a depth that allows the use of surface pumps, the land above the aquifer is suitable to agriculture, a manually constructed borehole is feasible, and people live in the area.
<sup>4</sup> Based on 374 calories per 100 gram of dry rice and total caloric needs of 2,100 calories per day per adult. Solar pump specifications and cost (Practica: http://practica.org/projects/introduction-solar-irrigation-pumps/).

depend on casual labor to make ends meet, while still raising income for net food sellers. Indeed, irrigation plus market access is the package of reforms found to yield the best poverty reducing results according to the CGE developed for this SCD.

26. **Opportunities for wage employment (the second pathway) are limited.** Few people are employed in the formal sector, and with limited prospects for rapid industrialization, this will remain the case in the foreseeable future. Casual labor opportunities on farm or in off-farm enterprises, by contrast, are much more likely to emerge, particularly when agricultural productivity increases.

27. **Permanent migration is surprisingly unimportant.** Despite the role that seasonal migration plays in ensuring sustainable livelihoods and despite the importance of transhumant livestock rearing, few Nigeriens migrate permanently. The majority of Nigeriens continue to live in the place where they were born, and Niamey is a surprisingly small city with only 1.1 million inhabitants in 2014 (compare, for instance, to 2.3 million for Bamako in Mali, a country with fewer inhabitants than Niger: 15.8 million).<sup>5</sup> Also in other countries of the region, there are fewer Nigeriens than expected considering the population of the country. This limited migration is surprising and the reasons behind it, and whether there is a latent demand for migration that remains unmet, deserve to be investigated.

28. **Social transfers are a third means to increasing household incomes.** Social safety nets can be used as short-term instruments to help the poor cope with economic shocks. They can also operate as medium/long-term poverty alleviation programs, supporting minimum consumption levels and promoting the accumulation of human and physical capital. When transfers are provided over multiple periods to poor households, for instance, they are used to pay off debts, accumulate productive assets, or buy inputs (fertilizer). <sup>6</sup> This enhances productive capacity and resilience such that eventually these households no longer require support. Most social safety nets in Niger focus on coping; only some are of the resilience-building type and none offer any guaranteed protections in the sense that people affected by a shock can certainly rely on them (such as a standby cash for work program). Structured well, social safety nets offer the opportunity to increase growth in a pro-poor manner while also reducing poverty directly. Simulations carried out of this SCD suggest that a combination of growth (2.4 percent per capita) over the next 15 years with perfectly targeted, transaction-cost-free transfers to the equivalent of 2 percent of GDP is sufficient to achieve the objective of poverty elimination by 2030.<sup>7</sup>

29. To put Niger on a sustainable path of poverty reduction, a change in trajectory is needed urgently. Though poverty reduced over the past decade, much of it can be attributed to favorable external conditions which no longer exist. Natural resource prices have slumped, climate change aggravates weather variability, and increased insecurity implies substantially larger

<sup>&</sup>lt;sup>5</sup> World Development Indicators. Niamey does not lie in Niger's most fertile zone. However, unlike Mali, Niger has a substantial number (13) of medium-size cities with more than 100,000 inhabitants (versus only 6 in Mali).

<sup>&</sup>lt;sup>6</sup> See, for instance, for evidence from Niger: Stoeffler, Quentin, and Bradford Mills. 2014. *Households' Investments in Durable and Productive Assets in Niger: Quasi-experimental Evidences from a Cash Transfer Project*. World Bank Policy Research Working Paper no. 7839.

<sup>&</sup>lt;sup>7</sup> For comparison, in 2009, total tax exemptions were the equivalent of 1.9 percent of GDP (REDES 2011: *rapport sur les depenses fiscales au Niger*).

spending on security and humanitarian assistance—the latter to deal with the large number of refugees and displaced people with whom Niger is confronted. The economy of Nigeria is experiencing a major recession and the naira has halved in value. It has led to reduced demand for exports from Niger (goods as well as services - labor migrants) and increased imports from Nigeria as a result. The combination of lower natural resource prices, increased competition from Nigeria, and increased outlays for the security sector has created liquidity problems for the authorities. Meanwhile, the pressure of higher population is making itself increasingly felt and a major climatic shock is always a risk. As initial conditions remain poor<sup>8</sup> and levels of poverty extremely high, and as the country looks increasingly fragile, business as usual will not suffice to sustainably reduce poverty.

30. A citizen-centered approach is presented as the way to change the development trajectory. Past approaches have not been able to deliver effectively: service provision is unequal (focused on Niamey) and of low quality and low efficiency; large scale public investments are inefficient; the business environment remains constrained and total factor productivity improves only at a slow pace. An approach that targets citizens more directly and that pays more attention to financing results as opposed to inputs offers promise. It strengthens local initiatives and decision making, increases local incomes and autonomy, enhances access to information, and embraces service delivery by whoever is capable of doing so. Such an approach would enhance ownership, a precondition for sustainability, and move the focus of decision makers and development agencies away from a centralized, state-led development model. As purchasing power is increasingly moved toward local areas, it would provide incentives to private sector operators to invest in rural areas. New technologies, cheap computing, mobile telephony, and solar energy, in particular, offer great opportunities to accommodate a shift to citizen-centered approaches.

31. **Three areas of binding constraints have been identified.** These areas are informed by descriptions of Niger's economy, its long-term growth trajectory through economic transformation, and the pathways to poverty reduction identified by the analytical framework. In addition to these three areas, security has been identified as a precondition for development. Even though it precedes any of these three areas of binding constraints, it is captured under the governance constraint:

- Low rural productivity
- Inadequate human capital
- Poor governance

32. In the presence of multiple poverty traps, addressing one trap at a time is unlikely to be effective. The implication is that preference should be given to integrated approaches that address more than one problem at the same time.

33. Low productivity of key food crops and livestock is the first binding constraint to poverty reduction. Modernization of the rural sector is held back by exposure to uninsured risk and limited adoption of modern technologies. Where possible because of the availability of water, (small-scale, solar) sustainable irrigation is critical. It reduces dependence on the weather, land

<sup>&</sup>lt;sup>8</sup> Low levels of human capital; an adverse business environment and a pattern of growth that favors the non-poor.

pressure, and underemployment as multiple harvests are possible during the year. Implementing an irrigation program will require close collaboration between those working on water management, energy, agriculture, and finance (leasing) but also social protection as transfers can be used as collateral and as means to entice households to diversify. Where sustainable irrigation is not possible, access to improved seeds and other inputs in combination with agricultural extension (to introduce climate-smart technologies, improve water management, and address soil degradation) should be pursued along with activities that raise the productivity of livestock, particularly birds and small ruminants, the animals most frequently owned by poor households.

34. **Market access needs to be addressed too.** Increasing farm productivity needs to go hand in hand with improved market access,<sup>9</sup> requiring attention to transport corridors, selected supply chains, and promoting the transformation of agricultural produce. Improved farmer organizations in cooperatives can also enhance market access. Crop markets are dominated by a small number of powerful, politically connected traders who control all local purchases through their access to capital and control over middlemen. Farmers who have joined in cooperatives can bypass these middlemen and access markets directly. Investments in road infrastructure are less urgent. Niger's road network is not very dense but only in few areas would additional paved roads be economically justified (that is, where there is traffic of more than 100 trucks a day). Given the generally dry terrain, access problems are limited to the wet season. Improving access does not require pavements but spot improvements in critical areas. Responsibility for such improvements can well be given to local-level road maintenance groups that are paid and supervised by higher-level authorities.

35. Low levels of human capital is the second binding constraint. The ability to work productively is the core asset of poor individuals. As labor is the main asset of the poor, alleviating this binding constraint is complementary to increasing rural productivity through supply- and demand-side measures. Increased productivity leads to higher incomes, which leads to better nutrition, which in turn improves the ability to work or to pay for health treatments. Literacy provides farmers more access to new information and aids the adoption of new technologies, for instance. Better-educated people are also much more likely to successfully migrate from rural to urban areas or to other countries.

36. **To address low levels of human capital, a first priority is service quality.** Presently, the quality of health and education services is so low that spending on the social sectors yields very low returns. This needs to be addressed. Minimum levels of literacy and numeracy—for young children and for adults—need to be ensured along with skills and competencies in areas critical to development (health, education, extension). It requires investments in primary education, adult literacy, and training at higher levels of educated at higher levels requires a reconsideration of the way the school system operates. An inclusive approach in the early years (when the unit cost of schooling is low) may have to be combined with an exclusive one for higher education levels when

<sup>&</sup>lt;sup>9</sup> A Computable General Equilibrium (CGE) model developed for this SCD demonstrated that the largest impact on poverty reduction comes from a combination of actions that raise farm productivity in conjunction with improved trade facilitation.

unit costs are high. It requires stringent selection based on quality and, concomitantly, high dropout rates.

37. A focus on skills and competencies should be accompanied by a focus on behavioral change. Radio messages and shows and social and health workers can offer valuable information on a wide range of issues from family planning to hygiene and healthy nutrition. Voter education, adult literacy training, and greater transparency about budgets and spending decisions increase the accountability of leaders. Relieving constraints to information requires investments not only in information and communication technology (ICT) and mass media development but also in more traditional channels of providing information including through extension officers.

38. **Poor governance is the third binding constraint.** Poor governance leads to low levels of efficiency and productivity in the public and private sector. There are four aspects to this. First a secure environment needs to be guaranteed. Unfortunately, security can no longer be taken for granted. Easing the burden that conflict and forced displacement impose in some of the most deprived areas of the country is important for poverty reduction and for preventing future conflict. It also implies paying attention to mechanisms of conflict resolution; strengthening internal security mechanisms (police, gendarmerie); and addressing illicit financial flows.

39. Next measures need to be taken to reach citizens directly and to empower them. It entails moving away from a public sector-led provision of services to an approach that focuses on the empowerment of citizens and service provision by whoever is best suited to doing so (private sector, nongovernmental organizations [NGOs], civil society organizations [CSOs], public sector). It will be facilitated by relying more on small-scale (as opposed to large-scale) interventions that can more easily target poor households. Technological advances in ICT and biometric identification and engineering (solar power, computing) make small-scale interventions and asset provision (such as pumps) implemented at scale realistic. Other aspects to operationalize a citizencentered approach include improved access to information (as well as literacy), a better alignment of the incentives of service providers with results (performance-based financing), promoting private sector service provision where feasible, and greater emphasis on external/civilian oversight on public institutions and services, notably at the local level.

40. To successfully engage citizens directly, the capacity of the central administration needs to be improved as well. Addressing governance constraints in a competitive political settlement with low bureaucratic capacity is a major challenge. A long-term strategy to build capacity is required. Improving capacity across the board may not be feasible given the many vested interests and inability to implement a long-term strategy, but an opportunistic approach is achievable. After all, the state is a complex organization machine, whose actions are shaped by its actors, officials and bureaucrats; their histories and personalities; and the incentives they face. Within the state, 'islands of effectiveness' already exist. Others could possibly be created in areas such as education, health, agricultural extension, PFM or statistics—the latter especially when statistics are used to assess the performance of service providers.

41. **Third, economic opportunities need to be realized.** In addition to the agro-industrial sector, which was identified under the first area of constraints, this holds good for the telecom sector—which plays a critical role in developing citizen-centered approaches and for the mining

sector which, provided it is transparently managed, has much potential for growth, developing forward and backward linkages, and contributing to public revenue. Cities, primary as well as secondary cities, should be seen as centers of economic growth and transformation. To make them productive, sufficient attention needs to be paid to city planning and management; infrastructure provision (roads, energy, water and sanitation, telecom); and assurance of a conducive business environment for formal as well as informal sector activities.

42. Finally, improved public financial management (PFM) is critical, on both the revenue side and spending. Too much money is 'lost' through tax exemptions or through tax evasion (informal trade), through nontransparent procurement procedures, and because of poorly selected and executed investment projects. It is a problem that has long been flagged, which needs to be addressed as a matter of urgency. The vulnerability of the economy to the oil-price shock and the associated devaluation of the naira highlight the need to come up with policies to better deal with economic shocks—particularly as the country has no means to deal with economic shocks through its monetary instruments which are all managed at the regional level. It can be done by creating financial buffers in times of plenty or by developing insurance instruments that cushion shocks when they materialize.



Figure E.1: Poverty and the potential to increase agricultural productivity through irrigation

Agriculture, in turn, is largely driven by water availability. Tapped sustainably, the presence of groundwater at low depth in areas where many poor live creates scope for poverty reduction through irrigation.



Source: World Bank 2016 staff and M. MacDonald, H.C. Bonsor, B.E. O Dachartaigh and R.G Taylor (2012) Quantitative Maps of Groundwater Resources in Africa, Environmental Research Letter.



#### Figure E.2: Demographic challenges

Source: World Bank. 2016. Demographic Challenges and Opportunities in the Sahel and Central Africa.

8

20-24

10-14

0-4

8

4

0

**Population 66.7 millions** 

4

xxi

20-24

10-14

0-4

8

4

0

**Population 78.0 millions** 

4

8

## 1. Introduction

1. **Located in the Sahel, Niger is in many ways defined by its natural environment.** With a land area of 1,267,000 km<sup>2</sup>, Niger is the sixth biggest country in Africa and the biggest in West Africa. The country is landlocked and the closest port, Cotonou, is over 1,000 km away. Niger has 5,700 km of land borders, a high proportion of which run through sparsely inhabited regions that are difficult to govern. Niger is located at the heart of a turbulent region marked by political and religious violence in northern Nigeria, separatist and armed movements in northern Mali, and intercommunal violence and state collapse in southern Libya. In the Diffa region and certain zones in the regions Tillabery and Tahoua a state of emergency has been declared and there are an estimated 198,000 refugees and 137,000 internally displaced persons in Niger.<sup>10</sup> Niger participates in a number of regional institutions, including the West African Economic and Monetary Union (WAEMU), a customs and currency union, of which all eight member states use the CFA franc (CFAF). Niger is also a member of the Economic Community of West African States (ECOWAS), a broader organization that promotes regional peace, stability, and justice.

2. **Niger's population of 19.9 million (in 2015) is unevenly spread throughout the country.** An estimated three-quarters of the population live in the south, where practically all the country's arable land (12 percent of the surface area) is located. Conversely, some parts of the north are almost uninhabited. The population is mainly rural—only 18 percent of the population live in urban areas, Niamey in particular. A demographic transition—the shift from high to low mortality and fertility levels—has begun through an impressive decline in child mortality. However, fertility remains high and has actually increased in the last five years to 7.3 children per woman. The population is estimated to increase to 30–35 million by 2030 and between 67 and 78 million by 2050. Persistently high fertility and declining child mortality have resulted in a very young age structure, with 49 percent of the population below 15 years of age and a child dependency ratio of 105, meaning that there are 1.05 children for each person of working age. The presence of such a large share of youth has implications at both the household and national levels in terms of health, nutrition, food security, human development, demand for jobs, and economic growth and stability.

3. With a per capita GDP of US\$895 in 2015 (constant 2011 U.S. dollar), Niger is among the poorest nations in the world. The vast majority of Niger's 8.2 million poor (2014 estimate) live in rural areas where food insecurity is high. Human development indicators are concomitantly low. The average level of education is 1.4 years; only 52 percent of children have received a complete set of vaccinations and 44 percent of children under five are stunted.

4. **People's livelihoods are dependent on (rain-fed) agriculture and (extensive) livestock rearing.** The agriculture and livestock sectors together engage more than 80 percent of the workforce and account for 40 percent of GDP. Agricultural productivity is low, particularly of women farmers,<sup>11</sup> and farming is characterized by smallholders tilling the land with limited

<sup>&</sup>lt;sup>10</sup> World Bank, and UNHCR (United Nations High Commissioner for Refugees). 2016. "Forced Displacement by the Boko Haram Conflict in the Lake Chad Region." Data provided by UNHCR Niger in May 2015.

<sup>&</sup>lt;sup>11</sup> Backiny-Yetna and McGee (2015) find that in Niger, plots managed by women produce 19 percent less per hectare than plots managed by men. The primary factors that contribute to the gender productivity gap in Niger are (a) farm labor, with women facing significant challenges in accessing, using, and supervising male farm labor; (b) the quantity and quality of fertilizer use, with men using more inorganic fertilizer per hectare than women; and (c) land ownership and characteristics, with men owning more land and enjoying higher returns to ownership than

mechanization, using little chemical inputs, and relying much on labor inputs while practicing limited soil conservation strategies and in the general absence of enabling infrastructure for agricultural development. Farmers rely heavily on the use of simple tools (hoes, cutlasses, and spades) and techniques (manual weeding, hoeing, and harvesting). Soils are generally not very deep, with low water retention capacity, low organic matter content, and easily eroded by wind or rain. These characteristics get reflected in the most pressing problems identified by the population in the 2015 Afrobarometer survey: food shortage, water supply, health, and poverty all feature prominently (Figure 1.1).

5. **Livelihood systems differ between ethnic groups living in Niger.** While some ethnicities such as the Hausa traditionally live in fixed locations, other groups such as the Peulh and Tuareg have a tradition of 'stateless societies'.<sup>12</sup> Hausa, who make up more than half of the country's population are traditional subsistence farmers, living from staple grains. Another agricultural group is the Djerma-Songhai. The (semi) nomadic Peulh base their livelihoods on animal husbandry and largely depend on the natural productivity of grasslands. From the beginning of the dry season, when pastoralists move down southwards to water their livestock from surface ponds, vegetation on agricultural fields is used as temporary pasture. Hausa and Peulh traditionally share a mutually beneficial relationship, as farmers exchange grain or crop residues for manure produced by herders' livestock.<sup>13</sup>



#### Figure 1.1: Challenges faced by Niger

Source: Afrobarometer 2015; World Bank, World Development Indicators (WDI) 2015.

6. Niger's subsistence agriculture is based on cereal crops (millet and sorghum) as well as cow peas. Together, these crops take up most of the cultivated area and constitute the staple

women. Prospere Backiny-Yetna and Kevin McGee (2015). Gender Differentials and Agricultural Productivity in Niger. World Bank Policy Research Working Paper No. 7199.

<sup>&</sup>lt;sup>12</sup> Thomson, J. T. "State Theory and Practice in Francophone Africa: French Roots and Perspectives." Paper prepared for presentation at a colloquium held at the "Workshop in Political Theory and Policy Analysis", February 26, 1996

<sup>&</sup>lt;sup>13</sup> For example, Thébaud, B., and S. Batterbury. 2001. "Sahel Pastoralists: Opportunism, Struggle, Conflict and Negotiation. A Case Study from Eastern Niger." *Global Environmental Change* 11: 69–78.

diet of the majority of the population. Despite opting for drought-resistant crops, there exists a great vulnerability to climatic hazards. Inadequate yields, poor diversification of incomes, climate change, and increasing pressure on land due to population growth are the reasons why economic and food insecurity persist and why levels of malnutrition are high. Niger is a net importer of food (food is the 2nd most important import good after capital goods). Many Nigeriens undertake seasonal migration to Nigeria and other countries in the region to make ends meet. Seasonal migration ensures that there is a mouth less to feed and allows migrants to earn an income during the off-season.

7. **Extractive industries form an important part of the economy.** Uranium has been mined since the 1960s by companies dominated by French capital. Uranium production is expanding and once the Imouraren mine in the Agadez region becomes operational (originally expected in 2016, but now postponed following the fall in uranium prices), Niger is projected to become the world's second largest supplier of the metal.<sup>14</sup> Gold production has also increased in recent years. Traditionally, the mineral has been mined artisanally and Niger's first commercial gold mine only began operating in 2004. A Chinese company, the China National Petroleum Corporation (CNPC), extracted the first barrels of oil in 2012. Income from mining accounts for a significant proportion of state revenue, 22–25 percent, in the recent past and minerals remain a coveted strategic resource. Niger has been compliant with the requirements of the Extractive Industries Transparency Initiative (EITI) since 2011.

8. **Niger has a complex political settlement with multiple actors balancing each other out in a dynamic but relatively stable equilibrium.** Among the core players are the military, a group of lifetime politicians, and powerful traders as well as selected traditional leaders, sheikhs, and religious leaders. This 'political class' has created a political settlement which presides over an uneducated, uninformed population with limited voice due to the need to associate oneself to powerful principals to protect against shocks. As a consequence of the competitive nature of the political settlement, politics has been volatile but rarely violent. Since independence in 1960, Niger has had no less than seven republican regimes and four military coups. The latest dates from 2010 when military officers overthrew President Mamadou Tandja, who had been in office since 1999. They quickly returned power to civilians, and in 2011, President Mahamadou Issoufou inaugurated the Seventh Republic and embarked on an ambitious 'Renaissance' program. He was reelected in 2016.

9. **Niger's political settlement and history of frequent political uprisings casts a shadow over its development prospects.** While the country recently completed parliamentary and presidential elections it remains fragile as internal and external security stresses threaten a delicate political balance.<sup>15</sup> Corruption, clientelism, and impunity are endemic; civil society is weak and co-opted; and the rate of change slow. Niger's competitive political settlement and personalized bargaining among elites favors short-term fixes over solutions that take a long term to materialize. Popular frustration and low capacity of the state to provide tangible services feed the expansion of

<sup>&</sup>lt;sup>14</sup> Others are also investing in uranium. GoviEx, a Canadian firm, got an exploitation licence in January 2016 to exploit the Madaouela Mine not far from the Arlit Mine. It entails a US\$676 million investment.

<sup>&</sup>lt;sup>15</sup> Several risk factors, including a major drought or a tightening of the elite coalition, could trigger instability and violence. Niger thus remains a country whose future is more worrying than its current state of fragility.

an Islamic civil society that is particularly vocal in its criticism. It can represent a radical, potentially violent protest movement or a peaceful attempt to 're-moralize' public life.



Niger is landlocked, transport costs are high, and access to markets is limited to regional markets, particularly in Nigeria.



Despite a vast land area and high transaction costs, mobile telephony is underdeveloped.



Rapid population growth puts a strain on (natural and public) resources.





A decline in uranium prices puts pressure on state finances.



*Source:* Rainfall: http://www.cameroon.climatemps.com/; Education Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA) 2011; exports: Doing Business 2016; population: WDI 2016; uranium price: IMF 2016.

#### Figure 1.2: Structural challenges to economic development

10. Low levels of education, a small domestic economy, limited productive knowledge, being landlocked, and high transaction costs limit the scope for rapid economic transformation through leapfrogging or import substitution. It leaves open the 'classical' path to economic transformation. In this process, agricultural and livestock sector output grow by expanding the area under cultivation and through productivity gains powered by the adoption of new technologies. As the share of food consumers relative to food producers grows through urbanization, markets become more important, the nonfarm and agribusiness sectors grow, and the food value chain and rural-urban linkages are strengthened. As incomes grow, second-order effects are likely to emerge: the stock of human and physical capital increases as households invest part of their increased incomes, leading to further productivity gains, to migration of (now better-) educated people to urban areas (which supports the realization of positive agglomeration effects) and to demographic transition (in part because women marry later and because fertility rates tend to drop with increases in income). To rapidly reduce poverty in the short run, Niger will need to harness this process.





Source: World Bank 2015 and Economist Intelligence Unit (EIU) 2009.

11. **Much of Niger's economic future will depend on economic developments in Nigeria.** Rapid growth in Nigeria implies opportunities for export and labor migration. Nigeria's economy is facing strong headwinds, with significant and negative repercussions for Niger's economy.

12. This SCD aims to identify the constraints and opportunities for achieving the twin goals of ending poverty and boosting shared prosperity by 2030 in a sustainable manner while acknowledging (a) the need for selectivity in pro-poor interventions, among the many competing 'binding' reasons for poverty in Niger and (b) the need to identify constraints that can feasibly be addressed. The twin objectives are considered to overlap because the incidence of poverty, using the national poverty line, is 45 percent. The document thus focuses on reducing headcount poverty. The objectives of the World Bank are closely associated with those of the

Government of Niger, which aims in its Renaissance Program to achieve rapid poverty reduction by 2035.

#### Box 1.1: Informal trade in scarcely populated areas presents a governance risk

Informal trade is a core activity for a landlocked country such as Niger whose economy is closely integrated into West and Northern Africa. In the southwest part of the country, Djerma and Songhai traders maintain close relations with Burkina Faso, Ghana, Côte d'Ivoire, and Mali. In the south and east of the country, the key commercial Haoussa centers, Maradi and Zinder, have close trade and family ties to northern Nigeria. The Kanura population of Diffa is deeply connected to the Lac Tchad trade with Chad, Nigeria, and Cameroon. In the northwest (Agadez and Arlit), Arab networks control the trade with Algeria and—to a lesser extent—Libya, while in the northeast, Tubu dominate the exchanges with Libya.

Informal trade across the desert has a long history in Niger and is rooted in the ancestral caravan trade. This trade took a different turn when in the 1970s, Algeria and Libya began subsidizing fuel and basic foodstuffs. It created new commercial opportunities in which traders from the south of these countries exchanged food and fuel for livestock with the nomadic population from northern Niger and Mali. They exported increasing quantities of animals to Algeria and Libya, with the vast majority evading official trade circuits.

As the long-distance trade networks developed and became more profitable and organized some networks engaged in cigarette smuggling from West African ports, with Niger as a key hub. Others got involved in drug trafficking (hashish, cocaine, medicines, and so on), weapons smuggling, and human smuggling. What started off as an informal trade thus grew into organized crime supported by, at times, heavily armed militias.

The emergence of this organized crime has had political consequences. Struggles over the control of the illicit products, especially drug convoys, contribute to tensions along ethnic and tribal lines and even with the Nigerien security forces. The empowerment of local communities as a result of the illicit economy has provided an impetus for the reassertion of ethnic identities. To appease ethnic groups from the north, Tuareg and Tubu are prominent in the national political and security system, while those who are not fully integrated benefit from a certain liberty to smuggle and traffic.

13. Accelerating poverty reduction in Niger presents a huge challenge. Niger reduced poverty by 9 percentage points over the past 15 years and made progress on a number of social indicators such as access to education and reducing child mortality. It did so under relatively favourable circumstances, with respect to the weather, commodity prices, and security. Nonetheless, per capita GDP in 2014 was at the same level as it was in 1990 (see Figure 1.1). Recently, the external environment has changed. The commodity price boom is over, insecurity and extremism are unfortunate realities, and climate change is becoming more manifest. Meanwhile, Niger's structural constraints remain unchanged (landlocked, low levels of human capital) while high population growth puts ever more pressure on limited natural resources, land, forest resources, and water. It underscores that to reduce poverty in the future a major shift in trajectory will be needed: to overcome Niger's structural constraints and to counterbalance the challenging external environment.

14. The remainder of the document is organized as follows. Chapters 2 to 5 provide background material on Niger, starting with poverty, risks, and vulnerability in Chapter 2 and human capital in Chapter 3. After these micro-oriented chapters, the document discusses the economy and opportunities for growth in Chapter 4 and governance in Chapter 5. Armed with this information, Chapter 6 sets out to identify binding constraints. The analytical framework is introduced along with the main pathways to reduce poverty. Informed by these pathways, three areas of core binding constraints are finally presented and discussed.



Figure 1.3: Niger's Human Opportunity Indicators relative to comparator countries

88 90

52

98

NIPE

Source: World Bank, Inequality and Human Opportunity Index (values circa 2008). Note: DPT = Diphtheria, Pertussis, and Tetanus; BCG = Bacillus Calmette-Guérin.

# 2. Poverty, Risks and Vulnerability

### 2.1 Poverty and Poverty Trends

15. The incidence of poverty remains very high, despite a 9 percent decline since 2005.<sup>16</sup> Poverty incidence declined from 53.7 percent in 2005 to 44.5 percent in 2014. Poverty declined in rural and urban areas, but the reduction was much more substantive in the capital city and in other urban areas, declining from 29.6 in 2005 to 8.7 in 2014. Note that while the reported decline in poverty is encouraging, it is likely to overstate actual progress made as the 2005 survey came following a drought year, whereas the 2014 survey was implemented during a relatively normal year. It underscores the difficulty of assessing poverty trends in Niger, as the consequences of different levels of rainfall can easily overwhelm the impact of structural change, at least in the short run. It makes it very hard to discern signal (structural changes) from noise (annual rainfall variation).

16. In rural areas, poverty is widespread and the number of poor increases by the thousands every year. In 2014, 51.4 percent of the rural population was estimated to be poor, against 58.6 percent in 2005. Despite this drop, the absolute number of rural poor increased by 1.8 million people as a result of rapid population growth. The rural poor also became poorer relative to their urban counterparts. In 2005, rural poor per capita consumption represented 60 percent of that of the urban poor. By 2014, it declined to 43 percent.



Figure 2.1: Poverty incidence and number of poor

Source: Authors' calculations using Unified Questionnaire of Basic Indicators of Well-being (*Questionnaire Unifié des Indicateurs de Base de Bien-être*, QUIBB) 2005; National Household Budget and Consumption Survey (*Enquête Nationale sur le Budget et la Consommation des Ménages*, ENBC) 2008; LSMS-ISA 2011 and 2014.

17. **Consumption growth benefited almost everybody, but better-off households benefited most.** Growth in real per capita consumption benefited everyone except those in the poorest decile. As can be seen from the growth incidence curves (Figure 2.2), the distribution of growth worsened between 2011 and 2014 relative to 2005–2011. Between 2005 and 2011, average per capita

<sup>&</sup>lt;sup>16</sup> Poverty numbers presented in this document differ from official poverty numbers for Niger as the available consumption data from the various surveys were transformed to assure comparability across time. The decline used in this SCD is less than the decline suggested by Niger's official poverty numbers which put poverty at 62 percent in 2005, 60 percent in 2011, and 48 percent in 2011 (INS 2015: Tableau de Bord Social).

consumption growth was positive for every percentile of the distribution even though it was higher for the richest segment of the population. Between 2011 and 2014, the poorest 30 percent of the population experienced a decline in real per capita consumption of up to 10 percent, whereas the better-off experienced even higher rates of consumption growth. As a consequence of the pro-rich pattern of consumption growth, inequality increased.





18. **Poverty reduction is relatively responsive to consumption growth.** The growth elasticity of poverty, which measures the percentage change in the poverty headcount for each percentage point change in consumption, shows that in Niger an annual growth in consumption of 1 percent leads in general to an annual decrease in poverty of 1 percent. This elasticity is higher than the average 0.7 consumption growth elasticity for Sub-Saharan Africa.





Source: Authors' calculations using QU IBB 2005, ENBC 2008, and LSMS -ISA 2011 and 2014.

Source: Authors' calculations using QUIBB 2005, ENBC 2008, and LSMS-ISA 2011 and 2014.

19. **Reduction in poverty is driven by internal dynamics in urban or rural areas and not by rural to urban migration.** The spatial distribution of the population in Niger has changed little over the past two decades. In 2014, more than 90 percent of the rural population lived in the same villages as where they were born. Between 2005 and 2011, of the total 5.5 percentage point decline in poverty, only 0.14 percentage points was due to rural-urban migration).

20. **High population growth exacerbates poverty in Niger.** Unlike in most countries, population growth is on the rise. It increased from 3.1 percent between 1988 and 2001 to 3.9 percent between 2001 and 2012. The high population growth rate is due to persistently high fertility rates and a rapid decline in child mortality (Figure E.2). The annual population growth rate of 3.9 percent is four times the annual pace of poverty reduction between 2005 and 2014 (1 percent). As a result, the absolute number of people living in poverty continues to rise.

21. **High fertility rates are poverty increasing for a number of reasons.** They are associated with large families and high dependency ratios factors that are positively associated with poverty. High dependency ratios reduce the ability to save and invest in human and physical capital, thus perpetuating poverty as families opt to rely more on labor and invest less in the education and health of their children. High fertility also has negative consequences for women's health and nutritional status—and consequently for their capacity to work. Poor women's health, in turn, has a negative effect on the health of their offspring.





22. **Poverty incidence varies considerably from one year to the next.** Figure 2.4 illustrates how poverty can vary over a short period. Changes in poverty are largely a reflection of differences in the weather. Between 2011 and 2014, for instance, poverty declined by almost 10 percentage points in Agadez but increased by about 9 percentage points in Maradi. These large variations suggest the presence of high levels of transitory poverty with people switching between being poor and nonpoor on a regular basis.

Source: INS 2012 and LSMS-ISA 2011/2014.

23. In spite of the large annual variation in the incidence of poverty, one can discern two geographic poverty clusters. There are the lower poverty regions which include the capital city of Niamey, Agadez in the north, and Diffa in the northeast. These three regions comprise 12 percent of the population and less than 5 percent of the poor. The high poverty regions are the remaining five regions in the southwest of the country (Tahoua, Dosso, Maradi, Tillaberi, and Zinder). Among these, Maradi has the highest incidence of poverty, 67 percent, and the highest concentration of poor people. Thirty percent of the poor in the country live in this region.





Source: Authors' calculations using LSMS-ISA 2014.

24. **Poverty incidence varies by livelihood zone.** The combination of rainfall and groundwater availability broadly defines different livelihood zones. Four zones are identified (Figure 2.5). Below the desert lies the pastoral zone. With a rainfall of 100–300 mm per year and subdesert climate, it is almost exclusively used for transhumant cattle herding though growing population pressure has led to an encroachment of agriculture along its southern part. The second zone is the agro-pastoral zone. It receives 300–500 mm of rain per year and is suitable for the extensive farming of millet. Yet, due to low yields, most households do not produce enough food to feed themselves throughout the whole year, and they thus engage in goat rearing, casual labor, small trade, and seasonal migration. The third zone (south Maradi, south Zinder and Dosso) is characterized by 500-600 mm of rain per year and semi-intensive rain-fed agricultural practices

and livestock rearing. Finally, irrigated cash crops are grown in small patches along the Niger River. Poverty incidence is high in the rural agricultural zones. Sixty-five percent of the poor, representing 5.3 million people, are located in this zone. The agricultural zone is also where the majority of the population, 56 percent, reside.

### 2.2 Poverty Profile

25. The characteristics of the Nigerien poor are not different from those elsewhere in the subregion. The poor tend to live in larger households and households with high dependency ratios. Households with younger or older heads tend to be poorer. The poor also tend to be more isolated, living at greater distances from key infrastructures and institutions. The poor lack education; however, education below secondary high school level has no poverty reduction effect on rural households. Households with heads employed in the public service or in nonagricultural activities are less likely to be poor. (Annex 1 presents regressions which show the poverty profile in greater detail.)

26. **Poor rural households are highly dependent on the market for food to meet their consumption needs.** Even in the agricultural livelihood zone, more than 60 percent of the food consumed by poor and nonpoor households is purchased (Figure 2.6). Households, even those depending on subsistence agriculture, are unable to produce enough to cover their own needs.



Figure 2.6: Sources of food consumed and sources of cash income agro-ecological zones

Source: Authors' calculations using LSMS-ISA 2014.

27. The majority of rural poor earn the greater part of their cash income through labor and not from crop sales. The poorest in the agricultural and agro-pastoral zones derive about 25 percent of their cash income by working on other people's fields (Figure 2.6). This is probably an underestimation because poor farmers also receive in-kind compensation for their labor. The poorest rural households also obtain a large fraction of their cash income from livestock sales and self-employment. The poor in the agricultural zones derive 15 percent of their income from sales of livestock and about 20 percent from nonfarm businesses. Annual earnings from livestock exceeds income from crops sales even in regions where agriculture is considered the dominant activity. 28. **Agricultural land, a key asset in rural areas, is unequally distributed.** Agriculture in Niger is basically a smallholder farming sector, with only a limited number of large-scale commercial/state farms. More than 60 percent of all agricultural landholdings are less than 5 ha. Land is much more unequally distributed than consumption. The Gini coefficient for land is 0.46 compared to 0.34 for consumption. Poverty incidence among farmers averages 55 percent, and the size of cultivated area per household matters only beyond 10 ha. Poverty rates among farming households owning more than 10 ha is 20 percentage points lower.

29. Livestock, a key asset for cash income generation, is very unequally distributed. Livestock is an important source of income in the economy and an important export product. In the agricultural and agro-pastoral zones, more than 70 percent of poor households do not own a single cow. Even in pastoralist zones, 65 percent of poor households own no cattle. The Gini coefficient for livestock ownership is estimated at 0.68, which is double that for consumption. The 10 percent wealthiest own 90 percent of all animals. Even more than access to land, does livestock ownership determine a family's wealth. Better-off households use large animals on their farms to increase their crop production, but they also use them as saving and investment good. Poverty among households owning fewer than 10 animals averages 50 percent; it is 10 percentage points lower for households owning more than 10 animals.



Figure 2.7: Inequality in land and livestock ownership

Source: Authors' calculations using LSMS-ISA 2014.

#### 2.3 Risks and Vulnerability

30. **Risks and shocks play an important role in perpetuating poverty in Niger.** The great droughts of the 1980s were transformative for Niger with the disappearance of forests, and the pastoralists' herds from the north were decimated due to the lack of forage production. The last serious drought in 2010 combined environmental degradation, population displacement, high grain prices, and poor food access and affected the food security of nearly 40 percent of Niger's population.<sup>17</sup>

<sup>&</sup>lt;sup>17</sup> USAID (United States Agency for International Development). 2014. *Climate Change and Conflict in the Sahel: A Policy Brief on Findings from Niger and Burkina Faso.* 

31. **National averages hide a great amount of churning in and out of poverty.** From 2011, which was a drought year, to 2014, 43 percent of people moved out of poverty while 27 percent fell in poverty. This volatility in poverty incidence follows from the high dependence of the overall economy on rain-fed agriculture and the inability of the population to insure themselves adequately against shocks.

32. **Price and drought/flood shocks dominate the risk environment.** In both the 2011 and 2014 surveys, households report price and drought/flood as the most severe shocks they face. About 30 percent of households view price shocks as their greatest shocks in 2011. Indeed, prices of cereals (that is, millet), which constitute the main staple of the population and particularly of the poor, display large intra-annual variations. As the poor are net buyers of food, with about 60 percent of food consumed purchased on the market, price fluctuations have a direct impact on welfare.



Figure 2.8: Vulnerability and poverty

Staple food prices vary significantly within and across years, creating huge vulnerabilities, particularly among households dependent on food purchases.



*Source*: Authors' calculations using LSMS-ISA 2011 and 2014 and United Nations Office for Disaster Risk Reduction (UNISDR) 2016. Prices: World Food Programme (WFP) 2016.

33. **Exposure to uninsured (weather and price) risks induce risk-mitigating strategies at the expense of higher yields.** In 2014—a 'normal' agricultural year—74 percent of households
faced shocks of different types and experienced a decrease in revenue; another 73 percent of households lost some assets. Shocks can lead to food insecurity and malnutrition. As a consequence of shocks, 75 percent of households reported a decrease in food production. About 35 percent of households decreased their reliance on food purchased on the market and reduced the quantity of food consumed. Because of the omnipresence of shocks in a context where households live not far above the survival threshold, farmers opt for relatively safe but low-return crops, such as millet and sorghum, while limiting their exposure by relying on traditional seed as opposed to improved or hybrid seeds which have to be purchased (often on credit). Households who have access to irrigation are less exposed to weather shocks.

34. The prevalence and ranking of self-reported price and weather shocks is consistent with self-reported views on the causes of poverty. Most households consider themselves extremely poor. In 2011, 55 percent of the population of Niamey ranked themselves as poor compared to the measured 10 percent poverty headcount. In the poorest agricultural zones, 75 percent of the population perceive themselves as poor. This figure reaches 78 percent in the rural pastoral zones. Drought/floods was most frequently mentioned as the main cause of widespread poverty (33 percent), followed by the lack of employment (28 percent) and the high cost of living (16 percent).





*Source:* Authors' calculations LSMS-ISA 2011. *Note:* HH = Household.

## 2.4 Poverty Traps

35. **Results from the 2011–2014 panel data suggest that 57 percent of poor Nigeriens<sup>18</sup> in 2011 could be considered chronically poor and thus potentially in a poverty trap.** Households may end up in a poverty trap because of adverse initial conditions (they 'inherited' too few assets and human capital), in combination with limited options to finance costly assets, or because of

<sup>&</sup>lt;sup>18</sup> That is 27 percent of all Nigeriens.

exposure to uninsured shocks. There are various ways in which poverty traps can occur; some of these, such as the demographic trap, have already been mentioned.<sup>19</sup>

36. Asset poverty traps occur when asset holdings are below some critical minimum needed to withstand a macro, community (drought, flooding, insecurity) or household shock (illness, death in the family). Such shocks would force affected households to dispose of some of their assets or to indebt themselves and be pushed into a state of chronic poverty. For instance, a poor household may lose its seeds and then fail to have the means to purchase new seeds. It may also happen that households lack the means (animal traction) to bring a sufficiently large area under cultivation, or they may be indebted and forced to first work on other people's farms to repay their obligations before they can tend to their own fields. Asset traps can result from the death of the head of the household, particularly when productive assets which were previously shared, such as ploughs or draft animals, are inherited by one survivor. Conflict and forced displacement have also resulted in asset traps as all productive assets-including land access and ownership, agricultural tools and inputs, seeds, and animals-are lost in the process of fleeing. The likelihood that asset traps are prevalent can be inferred from references to increasing landlessness and the formation of a class of medium-scale farmers who purchase land from distressed peasants.<sup>20</sup> It can also be seen from the fact that the poorest households plant the smallest areas per capita, have few productive animals and little in productive assets, and are most likely to have acutely malnourished children (a sign of food shortages).





Source: Authors' calculations using LSMS-ISA 2011.

37. **Nutrition trap.** For poor adults, low nutritional status reduces their ability to engage in physical activities that are necessary to grow food or raise livestock. This reduces productivity, translating into lower incomes, leading to poverty and inadequate food consumption, further lowering their productivity and creating a vicious spiral into a destitute state. Hunger and

<sup>&</sup>lt;sup>19</sup> Presented is an adaptation of a taxonomy by: Thorbecke, Erik. 2013. "The Interrelationship Linking Growth, Inequality and Poverty in Sub-Saharan Africa." *Journal of African Economies* 22 (1): i15–i48.

<sup>&</sup>lt;sup>20</sup> Abdoulaye, T., and Ibro G. 2006, *Analyse des Impacts Socioéconomiques des Investissements dans la Gestion des Ressources Naturelles: Etude de Cas Dans les Régions de Maradi, Tahoua, Tillabéry au Niger*. Centre Régional d'Enseignement Spécialisé en Agriculture de Niamey et Université Libre d'Amsterdam.

malnutrition are widespread before the planting season starts, when food stocks are low and market prices high. Across rural livelihood zones, 31 percent report not having enough food to feed themselves. For children, malnutrition during the first few years of life causes irreversible damage by negatively affecting cognitive development which is important for learning and the building of human capital. Malnutrition is not only the consequence of inadequacy of the quantity of food but also about inadequate caring practices, including psychosocial stimulation. This is evidenced by the fact that most malnutrition occurs during the first 24 months in life, when the quantity of food needed is limited. It points toward the criticality of behavioral aspects of infant feeding: reliance on exclusive breastfeeding, introduction of appropriate complementary feeding, use of safe water, and dietary diversity but also birth spacing.

38. **Health trap.** Recurrent health issues have the ability to trap the poor in a vicious cycle of low productivity, low incomes, and poor health, leading to low productivity. Healthy workers are more likely to engage in productive activities; similarly freed from the need to look after the sick, caregivers can earn an income. During the four weeks preceding the 2014 survey, 36 percent of individuals reported a sickness. Fever/malaria is the leading cause of illness, followed by respiratory infections (often caused by indoor air pollution) and diarrhea. These health problems prevented 73 percent of those in the poorest quintile from undertaking their normal activities. Yet, only 39 percent of sick individuals in the poorest quintile sought treatment, as opposed to 66 percent of ill individuals in the richest quintile.



Figure 2.11: Education

Source: Authors' calculations using LSMS-ISA 2014.

39. Education trap. Despite the sharp increase in enrollment over the past 20 years, education levels remain exceptionally low in Niger. About 50 percent of the population ages 15–24 years cannot read or write. In addition, 72 percent of the population has no formal education. The mean year of completed schooling is about one year for the poorest quintile in rural areas. Moreover, the return to education is low for levels below secondary school. Relative to households with no education, households with primary education do not have higher consumption. However, children from the poorest quintile struggle to transition to secondary schools, in part due to distance. Furthermore, households that experience income shocks from drought/floods are 4 percentage points less likely to have their children attending schools.

40. Social- and gender-based traps may result from long-standing cultural values, which in turn may be a response to coping with a risky environment. Traps are associated with attaching less value to the education of girls than of boys; the custom of marrying girls young (particularly in situations of financial distress and preferably to well-to-do (hence older) men from a different climatic zone); customs prohibiting women from inheriting upon the death of their husband (leading—in polygamous households—to a competition for children as it justifies a larger share of the inheritance); or customs separating the economic spheres and responsibilities of husband and wife. Societal norms and expectations limit the full economic potential of women, and by implication of society. Thirty-four percent of Nigerien women are out of the labor force as opposed to 10 percent for men; those working are employed on average for fewer hours than men (28 versus 43) and receive lower earnings. Few women engage in seasonal labour migration.<sup>21</sup> Gender- and social-based traps are rarely purely 'cultural' and are often influential, that is, they serve an economic function. This is the case, for instance, with girls marrying young in exchange for a dowry. As a consequence, many social and gender traps could gradually become less binding, as social norms change or as the economic reasons for the practices become less pressing.



Figure 2.12: Differences in main activities between men and women

Source: World Bank. 2016. Jobs Assessment in Niger.

41. **Soil fertility trap.** The arenosols on which most agriculture in Niger is practised have a low natural fertility and low water retention capacity but are permeable and easy to work. These soils are suitable for low-demand agricultural crops such as millet but they erode easily by wind and water as soon as the vegetation cover is gone. Soil fertility is typically restored by relying on fallow, but land pressure because of population increase and low productivity because of soil degradation reduces fallow periods and thus reinforces declining soil fertility.<sup>22</sup> Reliance on wood

<sup>&</sup>lt;sup>21</sup> World Bank. 2016. Jobs Assessment in Niger.

<sup>&</sup>lt;sup>22</sup> A recent study estimated the cost of land degradation in 2007 due to land-use and land-cover change (LUCC) as approximately US\$0.75 billion, which is 11 percent of the 2007 GDP.

fuels (85 percent of energy consumption in Niger is from wood) also contributes to soil degradation.

42. **Conflict can also be a trap.** The destruction of property and the loss of life and access to services that are associated with conflict have already been identified as potential reasons for poverty traps. However, conflict also damages the social fabric, reduces the scope of informal safety nets, and limits productive opportunities, leading to further deprivation which in turn can fuel conflict, for instance when destitute youth feel compelled to join armed groups for economic gain. Conflict thus generates further conflict, leading to vicious cycles of increasing poverty.

43. Faced with very low incomes and exclusion from financial and insurance markets, a poor household's only option to avoid chronic poverty is an autarkic savings strategy to invest in the necessary assets. This requires substantial medium-term sacrifices in the form of diminished consumption, which many very poor households cannot afford, as their consumption levels are already low. Households in chronic poverty are likely to forgo nutrition, health, and educational investments which will undermine their long-term productivity and further entrap them. Poor households may also be forced to put their children to work, entrapping them in poverty in the future when they are grown-ups.<sup>23</sup>

44. The prevalence of multiple poverty traps implies that successfully attacking poverty is likely to require a multifaceted strategy. As poverty traps could not occur in the presence of well-functioning financial markets, financial deepening is an important issue, especially in rural areas where most of the poor live. As financial markets can be expected to remain incomplete, other interventions will also be needed to address poverty traps. In locations with more than one trap, rather than attacking each trap separately to break its vicious cycle, multiple cycles have to be broken at the same time to create a more virtuous cycle.<sup>24</sup> Single interventions may address multiple traps at the same time: improved female education can be expected to reduce traps associated with gender, the lack of assets (human capital), and high levels of fertility. Irrigation could address nutrition, productive asset, spatial, and soil fertility traps simultaneously by lengthening the growing season and increasing yield.

## 2.5 Climate Change

45. There is a great awareness of the rapidly changing climatic phenomena in Niger. Over the period 2009–2014 most households observed less rainfall (52 percent), worse distribution of rainfall in the year (62 percent), more frequent droughts (59 percent), shorter rainy seasons (77 percent), and more delays in the start of rainy seasons (66 percent). These perceptions are homogenous across livelihood zones and between poor and nonpoor households. However, only 13 percent of households have any adaptation strategy with respect to climate change. The dominant adaptation strategies are diversification to nonfarm activities (26 percent), migration of family members (23 percent), raising fewer livestock to increase agriculture (23 percent), and

<sup>&</sup>lt;sup>23</sup> This is clearly happening. Some 16 percent of those between ages 5 and 14 combine school and employment. As working children are employed on average for 27 hours per week and also often contribute to other household chores, it is likely that work obligations affect their school progression and hence the ability to earn an income in the future. World Bank. 2016. *Jobs Assessment in Niger*.

<sup>&</sup>lt;sup>24</sup> Thorbecke, Erik. 2013. "The Interrelationship Linking Growth, Inequality and Poverty in Sub-Saharan Africa." *Journal of African Economies* 22 (1): i15–i48.

changing seed varieties (21 percent). Only 6 percent of households irrigate more intensely as an adaptation strategy. The nonpoor adapt more through diversification of sources of revenues (30 percent) while the poor adapt by shifting from raising livestock to increasing agricultural production.





46. The overall economy is exposed to rainfall variability which will likely be heightened by future climate change with consequence for poverty reduction. Households dependent on rain-fed agriculture and livestock rearing for subsistence will continue to face large income fluctuations originating from climate variability. Exposure to food insecurity, hunger, and malnutrition will increase. The annual variation in rainfall is highly correlated with cereal production. During the last drought of 2011, a 21 percent decline in rainfall led to 28 percent decline in cereal production and 8 percent reduction in the stock of animals.

47. Levels and timing of rainfalls are important for households' poverty. There is a strong relationship between households' poverty and the amount of rainfall and the timing of rainfall across livelihood zones. Levels of rainfall above the historical mean are associated with lower levels of poverty. In 2014, poverty among households that received above-average rainfall was 39 percent compared to 47 percent for households receiving below-average rainfall. Poverty among households that receive rainfall late in the planting season was 52 percent compared to 42 percent for those households that received rainfall just in time. While poverty is high in the southern agricultural zones (56 percent), poverty is 4 percentage points lower in areas that practice irrigated farming. Small-scale irrigation and weather insurance provide one potential solution to minimize weather risk to production and therefore reduce poverty.

Source: Authors' calculations using LSMS-ISA 2011 and WDI.

#### Box 2.1: Determinants of poverty decline

Identifying the determinants of poverty decline is hindered by the absence of detailed survey information on sources of income for households. Such information was only collected in 2011 and 2014. As a consequence, explaining the poverty trend can only use data spanning a relatively short period, making it hard to differentiate signal (policy actions) from noise (weather events). This is particularly pressing as rainfall is a core determinant of productivity in agriculture. This is immediately evident when considering information on poverty incidence in Figure 2.4, which shows large changes in poverty (going in both directions) across different regions. Since all regions operate in the same policy environment, changes in poverty need to be driven by local factors. Weather is the main one.

On average, the proportion of individuals living on less than CFAF 518 per day (the poverty line) fell by 1.2 percentage points per year since 2011. This pace was faster than the rate of progress in earlier years between 2005 and 2011 when annual poverty reduction was 0.9 percentage points. Poverty reduction among households engaged in rural areas was driven by higher levels of rainfall—up by 30 percent higher between 2011 and 2014. As a consequence, yields of the three major food crops (millet, sorghum, and cowpeas) were at least 1.5 times higher in 2014. As agricultural production increased, crop sales as a share of agricultural income also grew from 25 percent in 2011 to 51 percent in 2014. The increase in crops sales led to declining food prices, which was advantageous for net food buyers in rural areas.

Annual variation in rainfall is strongly correlated with annual cereal production.



Which led to much higher production.







And despite a slight decline in price, led to a much higher value of total production.





Agricultural output growth was driven by rainfall and not by technology adoption or changes in the nature of production. Compared to 2011, only a few more households used modern equipment (32 percent vs. 35 percent), inorganic fertilizer (20 percent vs. 24 percent), and pesticides (7 percent vs. 8 percent) in 2014. However, the proportion of households benefitting from agricultural extension services grew from 13 percent in 2011 to 27 percent in 2014. With low levels of inputs use, good luck (favorable weather) was the most significant contributor to rural agriculture income growth and the subsequent poverty reduction.

Urban poverty fell by more than 2 percentage points per year since 2011. In 2011, Niamey and other urban areas had 10 and 22 percent poverty incidence, respectively, which declined by 5 and 10 percent, respectively, in 2014. As a result, the number of urban poor declined from 511,000 to 260,000 people. There are two explanations for this decline. First, there is the decline in food prices (millet, sorghum, and maize) following the relatively good harvest of 2014. Even more than rural households, urban households are net food buyers, so they benefit from lower food prices. In addition, and on the back of increasing rural incomes and expansionary government spending on investment projects, wage income as a share of total income increased from 46 percent to 54 percent. This too contributed to urban poverty reduction.

# 3. Human Capital

## **3.1 Introduction**

48. **Offering quality education and health services to all Nigeriens is a major challenge.** Niger falls into the category of low human development, ranking last but one out of 188 countries on the 2016 Human Development Index. Niger's levels of education are very low (1.4 years on average), rates of malnutrition elevated (44 percent of under-five-year-olds are stunted) and vaccination and health service use rates are low. Seventy-two percent of children and 46 percent of pregnant women are anemic. Only 52 percent of the Nigerien children under the age of 24 months have received a complete set of vaccinations. Maternal mortality rates are high: 630 per 100,000 live births compared to 506 for Sub-Saharan African and only 15 percent of births are attended by a skilled health professional.

49. **Investments in human capital are needed as the capacity to work is one of the main productive assets of poor people.** For the poorest who lack physical assets, the health of 15–49-year-olds in the household is of particular significance. In those parts of the economy where the main pathways out of poverty are productivity increases in agriculture and out-migration, investments in health and basic competencies are needed to break the vicious cycle of poverty and poor quality of life that may otherwise persist.<sup>25</sup> To serve the needs of a modernizing economy, it is equally critical that citizens are equipped with skills to contribute to the structural transformation necessary to achieve higher levels of income. Finally, being healthy and educated empowers citizens and decreases dependency on principals for mere survival. It opens opportunities to hold leaders to account and demand good governance.





Source: World Bank Migration and Remittances data, April 2016.

<sup>&</sup>lt;sup>25</sup> See for instance Barro and Lee 2010; Krueger and Lindahl 2000; Gyimah-Bremponga and Wilson 2004; Becker et al. 1994. The direct relation between education and agricultural productivity is more tenuous among the poorest countries (Reimers and Klasen 2013), but there are reasons to believe that education will have a positive impact on agricultural growth. Education through extension services is important for improving farming techniques. Generally, better education would matter also for managing the business of running a farm.



#### Figure 3.2: Progress in human capital outcomes

Source: Demographic and Health Surveys (DHSs), various years and WDI 2015.

50. **Human capital outcomes were worse two decades ago.** Between 1992 and 2012, net primary school enrollment rates rose from 18 percent to 70 percent, a gain of 3 percentage points per year. Infant mortality dropped from 318 per 1,000 live births in 1992 to 127 two decades later. The lethality of malaria receded from 1.8 per 1,000 cases to 1.0 between 2006 and 2012, a

reduction that can partly be attributed to a tripling in the use of insecticide-treated nets to around 20 percent. Progress in human capital development is broadly shared, even though large differences persist between regions, by wealth category and by gender. Urban centers, particularly Niamey, exhibit the best human development outcomes. For instance, in Niamey, 34 percent of the population has no education; in Tahoua, 82 percent has no education.<sup>26</sup>

51. Not in all respects was progress made. Maternal mortality—an indicator of the ability of the health system to deliver complex services—declined only slightly from 652 deaths per 100,000 live births in 1992 to 630 in 2014. Also, malnutrition rates have remained stubbornly high. Poor maternal and child health are reflected in low utilization of services and poor adoption of protective health behaviors. For example, skilled attendance at delivery is only 29 percent and bed net use only 20 percent, putting women, newborns, and children at risk for poor health and nutrition outcomes.

## 3.2 Health

52. With 7.3 children per woman, Niger has the highest fertility rate in the world. In 2012, only 12 percent of women in Niger used modern contraceptive methods—very low by global standards. High fertility not only increases the risks to maternal and child health and nutrition but also increases child dependency ratios and exacerbates poverty and food insecurity. As death rates have progressively declined over several decades while fertility has remained relatively unchanged (Figure E.2), population growth has increased to 3.9 percent per year. Age-specific fertility rates show an extremely high adolescent fertility rate: 204.8 births to adolescent mothers ages 15–19 years, twice as high as the Sub-Saharan Africa average of 110. Sixty-one percent of girls between the ages of 15 and 19 are married and 40 percent of 15–19-year-old girls already mothers or pregnant with the first child. These figures reflect sociocultural norms encouraging early marriage and childbearing, limited educational opportunities beyond primary education, and low levels of contraceptive use.

53. High levels of fertility largely reflect wanted fertility. Unlike anywhere else in the world, in Niger, the desire for an additional child hardly declines with the number of children. So, not only is fertility high, high fertility is wanted. Niger thus appears to be exceptional; yet, most established correlates of fertility decline remain valid in Niger (the exception being the fact that fertility has not declined despite large declines in child mortality). For instance, there is variation in fertility between women of different wealth quintiles, but only women in the highest quintile have lower fertility (Figure 3.3). It suggests scope to reducing fertility through income growth, except for the fact that for the poorer households income growth would have to be substantial before fertility starts to decline. Living in an urban area is also associated with lower fertility, and correlates positively with known determinants of lower fertility: higher levels of education, access to information and access to health services. Niger's exceptionally high fertility can thus largely be explained by the fact that most earn very low incomes, have very little education and limited access to information and limited access to health services. Without improvements in these conditions, population growth is likely to remain high, and the impact of population policies limited.

<sup>&</sup>lt;sup>26</sup> INS (Institut National de la Statistique). 2012. Enquête Démographique et de Santé et à Indicateurs Multiples.





*Source*: UN Population Division, World Population Prospects 2015 Revision, and the National Survey of Socioeconomic and Demographic Indicators (*Etude Nationale d'Evaluation d'Indicateurs Socio-Economiques et Démographiques*, ENISED) 2015 survey.

54. Chronic food insecurity and infectious diseases have resulted in some of the highest rates of malnutrition and mortality in the world. Stunting is the result of chronic malnutrition, triggered by a continual insufficient caloric intake or by recurring infections that prevent the absorption of nutrients and expand nutritional needs. By 2012, the prevalence of stunting was 44 percent, compared to 38.3 percent in Mali and 18.7 in Senegal. Stunting is strongly associated with exclusive breastfeeding, which is very low in Niger-only 23 percent. The prevalence of wasting, which indicates acute undernourishment, was 18 percent.<sup>27</sup> At this level, acute malnutrition exceeds the WFP's threshold for emergencies. The highest prevalence is observed in the Maradi region (16 percent) and in Niamey, where the levels are very high (13 percent). There is a strong seasonal aspect to food insecurity and levels of malnutrition are especially high during the 'soudure', the period when food stores are depleted and the new crop not yet ready for harvesting. It lasts from June to October and coincides with the rainy season when the incidence of diarrheal disease and malaria are most elevated. High rates of malnutrition are also associated with higher susceptibility and severity of illness, putting a substantial number of children at higher risk for contracting and suffering from illnesses.

55. **A lack of medical personnel negatively affects the health system's performance.** Niger has the lowest nurse to population ratio of all comparator regional countries and half the minimum number of nurses recommended by the World Health Organization (WHO) (1 per 5,000 people). In 2009, 0.1 nurses were registered per 1,000 people, five to six times less than in Côte d'Ivoire and Burkina Faso. The lack of trained personnel is aggravated by an uneven spatial distribution of staff placement. In 2010, in Dosso for instance, one nurse served 7,786 people while in Niamey one nurse served 3,385. The density of doctors in Niamey is 17 times greater than in Tillaberi and 13 times greater than in Dosso. The personnel challenge is compounded by very high absence

<sup>&</sup>lt;sup>27</sup> WFP (World Food Programme). 2015. *Avis sur les perspectives agricoles et alimentaires 2015-2016 au Sahel et en Afrique de l'Ouest*. http://documents.wfp.org/stellent/groups/public/documents/ena/wfp277905.pdf.

rates: 53 percent nationally, low drug availability (around 40 percent for tracer drugs) and a limited ability to correctly diagnose a patient.<sup>28</sup>

Indicator (following lifecycle logic)	Value	Unit	Year	Source
Maternal and reproductive health				
Maternal mortality	630	per 10,000 live births	2012	DHS
Total fertility rate	7.3	per woman ages 15–49	2015	ENISD
Women, ages 15–49, who took basic prenatal health tests	83	%	2012	MICS4
Women, ages 15–49, who had qualified assistance during childbirth	29	%	2012	MICS4
Women giving birth in a qualified health facility	30	%	2012	MICS4
Contraceptive prevalence rate (modern methods)	12	%	2012	DHS
Child mortality and child health				
Under-5 mortality	127	Per 1,000 live births	2012	MICS4
Infant mortality	51	Per 1,000 live births	2012	DHS
Under-5 stunting (low height for age): Moderate to severe	43.9	%	2012	DHS
Severe	21.6	%	2012	DHS
Under-5 underweight (low weight for age): Moderate to severe	36.4	%	2012	DHS
Severe	13.3	%	2012	DHS
Under-5 wasting (low weight for height): Moderate to severe	18	%	2012	DHS
Severe	6.2	%	2012	DHS
Under-2 full vaccination coverage	52	%	2012	DHS
Under-5 who slept under an insecticide-infused mosquito net	20	%	2012	MICS4
Under-6 months on exclusive breastfeeding	23	%	2012	DHS
Under-5 diarrhea	19.4	0⁄0	2012	DHS
Basic education		<u> </u>		
Preschool enrollment of 3–5-year-olds	7.1	0/0	2014	WDI
Gross primary school enrollment	70.6	%	2014	WDI
Net primary school enrollment	61	%	2014	WDI
Gross secondary school enrollment	18.8	%	2014	WDI
Net secondary school enrollment	15.7	% 	2014	WDI
Gender parity at primary school level	0.84	enrollment/	2012	MICS4
Gender parity at secondary school level	0.69	boys' net enrollment	2012	MICS4
Education and skills of adults				
Years of schooling of women ages 15–49	0.83	Years	2014	HDI
Years of schooling of men ages 15–49	2	Years	2014	HDI
Women, ages 15–49, who can read and write a short simple phrase in French or English	8.90	%	2012	WDI
Men, ages $15-49$ , who can read and write a short simple phrase in French or English	23.20	%	2012	WDI

Table 3.1: Summary of indicators on health and education in Niger

Source: DHS 2012, ENSD 2015, WDI 2015.

*Note:* ENISD = Niger's Demographic and Health Survey with Multiple Indicators (ENISD l'Enquête Nationale d'Evaluation des Indicateurs Socioéconomiques et de Démographie; MICS = Multiple Indicator Cluster Survey; ENSD l'Enquête Nationale d'Evaluation des Indicateurs Socioéconomiques et de Démographie.

<sup>&</sup>lt;sup>28</sup> World Bank. 2016. Service Delivery Indicator Survey.

56. Low population density, a harsh climate, and poor road infrastructure makes it a challenge to access medical services. Walking long distances to seek treatment is not unusual. During the rainy season, flooding makes health facilities even less accessible. While during the dry season 39 percent of the population lives within a 1-hour walk of a health center, this drops to 24 percent during the rainy season. Vaccination rates are strongly correlated with distance. Children living within a 1-hour distance from a health center are 1.9 times more likely to have a complete set of vaccinations compared to children living further away.<sup>29</sup> Access to health care is impeded not only by inadequate infrastructure and personnel but also by cultural attitudes. For example, the most recent DHS shows that getting permission to go for treatment is listed as a barrier to accessing health care by high proportions of women in Agadez (44 percent), Maradi (40 percent), and Niamey (30 percent).

57. **Preventable diseases such as malaria and bronchitis are prevalent and often fatal.** In addition, infectious diseases such as cholera, meningitis, and trachoma remain major public health threats. Measles, meningitis, polio, and pneumonia are prevalent during the dry season (generally between October and March) while cholera (June to September) and malaria (August to September) are highest during the wet season.

58. Lack of sanitation, limited water treatment, and poor diets facilitate the spread of disease. Only 11 percent of the households have access to ameliorated toilets and over 70 percent practice open defecation—one of the highest rates in the world. While 58 percent of the population has access to improved sources of water, important disparities can be found between urban areas, where access to improved water is nearly universal and rural areas where less than half of the population has an improved access.<sup>30</sup> The combination of both with low water treatment (83 percent of households do not use an appropriate means to treat water) explains why one in five children suffered from acute and prolonged diarrhea in the three years preceding the MICS4 survey. While the disease is on the decline, diarrhea instances are only now reaching the levels other Sub-Saharan Africa countries already attained in the 1990s. Infectious diseases are both a cause and a consequence of the lack of a nutritional diet, as an immune system weak from inadequate nutrition is more disease prone and a sick person has higher caloric needs.

59. Quality of care is poor, with untimely and inappropriate care being provided to clients. According to the 2012 DHS, among children with diarrhea and acute respiratory infections, only 43 percent and 53 percent, respectively, received appropriate care. Only 35 percent of pregnant women received the two recommended doses of drugs for the Intermittent Preventive Treatment of Malaria. Use of health services is limited among adolescents: 16.4 percent of pregnant adolescents, ages 15–19, do not receive any antenatal care, two-thirds deliver at home with no assistance, and only 7 percent use contraception. A quality survey conducted in 2013 by the Ministry of Health (MOH) also reported inadequate providers' practices and behaviors toward women and adolescent health, including lack of privacy, inconsistency of clinical practices, staff absenteeism, and lack of adolescent-friendly approaches.

 <sup>&</sup>lt;sup>29</sup> Blanford, J., Supriya Kumar, Wei Luo and Alan M MacEachren 2012. "It's a Long, Long Walk: Accessibility to Hospitals, Maternity and Integrated Health Centers in Niger." *International Journal of Health Geographics* 11: 24.
<sup>30</sup> Forty-nine percent in 2015, according to the WHO/UNICEF Joint Monitoring Program: www.wssinfo.org.





Source: INS 2015; WHO 2012 and 2015; DHS 2012; Human Opportunity Index 2014.

60. **Financing for the health sector is a major challenge, underlying many of the supplyand demand-side barriers.** Niger's health sector suffers from chronic underfunding. Only 2.4 percent of Niger's GDP is allocated to the health sector. Given the reliance on out-of-pocket expenditures as the main source of health financing, the cost and unaffordability of health services remain the leading barriers for poor people. Annual per capita health spending is US\$8, which is far below global health care financing benchmarks. Due to declining donor contributions, government expenditures on health declined significantly between 2008 and 2010, from US\$92.9 million to US\$49.6 million), which represents a decline of 47 percent during this period. Between 2010 and 2011, health expenditures increased to US\$67.9 million, which is a significant improvement but still less than the amount in 2008. As a share of total government expenditure, health expenditures have also fallen, declining from 12.4 percent in 2008 to 7.1 percent in 2011. The total contribution of health expenditures of bilateral and multilateral agencies, including NGOs, also dropped drastically from 33.5 percent in 2005–2006 to 20 percent in 2009. Spending on goods and services declined by 11 percent, and spending on transfers and subsidies fell by 3.6 percent, while personnel costs increased drastically after 2011. Capital expenditures continued to decline, representing only 8.4 percent of total public expenditure in the sector.

## **3.3 Education**

61. **Levels of education are extremely low.** With 1.4 years of education on average, the level of education of Nigeriens is among the lowest in the world. Sixteen percent of the adult population has completed primary education and only 2.1 percent has completed secondary. Literacy rates are concomitantly low—14 percent of women and 42 percent of men are literate (2012 data)—as is the availability of skills in the economy. Limited access to information further compounds the lack of education of the population. Internet access is a rarity and the majority of the population does not even have access to mass media; only 40 percent of the population listens to the radio at least once a week (Figure 3.5).





Source: DHS 2012.

62. There are major differences in school attendance between rural and urban areas. In urban centers, schooling is the main focus for the majority of children up to age 15. Nearly 85 percent of 8-year-old children go to formal schools, while 7 percent combine school with work. Overall, only a minority of youth in urban areas works and studies at the same time; young urban Nigeriens focus mainly on school in the early years and by age 29 virtually all Nigeriens in urban centers either work (64 percent) or are out of both the labor force and formal education (33 percent). Those who remain in school after age 25 pursue higher education.

63. In rural areas, by contrast, only a minority of children of school age are in formal education. Only a small fraction of youth in rural areas exclusively attends school and most exclusively work or combine education with work. The age cohorts most exposed to formal

schooling are the 8- and 9-years-olds: among the 8-year-olds, only 27 percent attend formal schools and 17 percent combine schooling with work; among the 9-year-olds, only 26 percent focus on formal schooling and 22 percent combine formal education with employment. After age 16, almost no Nigerien in rural areas is exclusively focused on studying: the small numbers of youth who continue with their studies do so by combining education with work. The education levels attended by youth in rural areas are almost never higher than primary (up to age 16) or the first cycle of secondary (between ages 16 and 24).





64. To address low levels of education, major investments are being made, but universal primary education is far from achieved. In 2011, public spending on education was 3.2 percent

Source: World Bank. 2016. Jobs Assessment in Niger.

of GDP, 23 percent of total public expenditure, placing Niger above the median of other countries in the region. The greater part of Niger's education budget goes to primary education. In 2010, 60 percent went to primary education, 25 percent to secondary education, and 12 percent to tertiary education. Nonformal education received the remaining 3 percent. Still, enrollment is far from complete. The net enrollment rate in primary education is 63 percent; 22 percent in lower secondary education and around 7 percent attending upper secondary, the lowest rates of all the comparator countries in the region.



Figure 3.7: Education enrollment and quality





Less than one in ten Nigerien students receive passing scores in French in early primary...



... and the educational system does not manage to reverse this trend, which worsens by late primary. Late primary, % of students achieving sufficient



Source: United Nations Educational Scientific and Cultural Organization (UNESCO) 2014; Program Analysis of the CONFEMEN Education Systems (Programme d'Analyse des Systèmes Educatifs de la CONFEMEN, PASEC) 2014.

49 43 38 36

Niger Burkina Mali Côte Ethiopia Senegal Togo Ghana Kenva d'Ivoire Faso Adult literacy rate

66

57

competency scores 100 90 80



Zinder

Niamev

Tahoua

Tillaheri

Maradi

#### Figure 3.8: Regional inequalities in education



While Diffa has a low pupil-teacher ratio, the education outcomes remain poor.



Diffa

Dosso

Agadez

65. There are very large differences in education outcomes between rural and urban areas, between those from low- and high-income families, and by gender. According to the 2014 Gender Inequality Index, the mean years of schooling for a girl are 0.83 years compared to two years of schooling for a boy. A girl who is currently six years old can expect to complete 4.8 years of education, while her male classmates can expect to complete 6.1 years of schooling.

66. **The quality and efficiency of the primary education system are low.** According to the 2014 PASEC survey, only 8.5 percent of the students achieve passing scores in French and 7.7 in math. The State Report of the Nigerian Educational System (*Rapport d'Etat du Système Educatif Nigérien*, RESEN) 2010 estimates the retention rate for primary education at 66.8 percent,<sup>31</sup> implying that only about seven out of ten children entering primary education complete it. A high number of repeaters and dropouts thus leads to a significant waste of resources. The RESEN (2010) calculates an efficiency of 78.8 percent, which means that 21.2 percent of resources are wasted.

Source: DHS 2012.

<sup>&</sup>lt;sup>31</sup> RESEN uses the pseudo-longitudinal method to evaluate the progress of a given school cohort through the education system by reconstructing (hypothetical) a flow diagram of a cohort retention in the system. It compares the actual non-repeaters in a given class at time t to the number of non-repeaters in the previous class at time t-1.

At the same time, unit costs for primary education in Niger are relatively high (21 percent of GDP per capita in 2010), which further reduces the effectiveness of the education system.

67. Secondary education is also characterized by low access and efficiency. With a retention rate of 33.7 percent in the lower secondary education cycle, the ability to produce secondary education graduates is limited. For students completing lower secondary education and enrolling in upper secondary education, chances of graduating are significantly higher with retention rates of 73.4 percent in 2010. Because of high repetition rates for lower secondary education, the efficiency of this cycle is low. The RESEN (2010) calculates an efficiency index of 49.5 percent for lower secondary education in 2009 and 73.3 percent for upper secondary education.

68. Low quality and efficiency in education has many causes, many of which are rooted in inadequate management of the sector. Access to learning materials and textbooks is a problem. Almost 20 percent of the primary schools have no access to textbooks, and 30 percent lack access to mathematics textbooks. There is also high variation in the availability and quality of learning materials across schools, suggesting that the issue of textbook availability is not only about overall availability but also about inequitable distribution. Quality of education is also affected by uneven distribution of teachers across schools and limited teaching time. There is a large variation in pupil-teacher ratios. The average number of pupils per teacher was 39 in 2011, but the large variation means that many schools are well above this average. Furthermore, the quantity of schooling time is challenged by high rates of absenteeism among teachers, which is more than 18 days during a school year for almost a third of the teachers (RESEN 2010). The latter two issues point to the need for more efficient teacher deployment and stronger accountability of teachers to schools and communities. Adding to the shortage of textbooks and teachers in many schools, the majority of primary schools also lack basic amenities such as sanitary facilities, portable water, and electricity. This further reduces the quality and equity of education. The quality of education is further brought down by poor teaching methods. The current curriculum puts much emphasis on content and rote learning instead of on skills acquisition by focusing on reading, mathematics, and problem solving. This is exacerbated by the limited subject knowledge of many teachers (in particular contractual teachers) and their lack of competency in teaching methods.

69. Low quality of education translates in low returns, particularly in rural areas. Examining the effect of education on per capita consumption by place of residence, it is evident that the returns to schooling are low. Urban residents who completed primary education have a per capita consumption that is 12.9 percent higher than those who have no education. In rural areas the difference is only 5 percent and only significant for those living in the agro-pastoral zone. Benefits of education are much higher for those with secondary education (23 percent) or higher (64 percent) but the fraction of the population that meets these criteria is extremely small.



# Figure 3.9: Difference in per capita consumption relative to households with heads who have no education (only significant results are presented)

Source: World Bank staff estimates using the LSMS-ISA survey 2014.

70. Lack of efficiency is symptomatic of Niger's inadequate institutional capacity and the absence of incentives to perform. As illustrated by the lack of efficiency in the allocation and use of human resources, the administration has a limited capacity for personnel planning and management, supervision of teachers, and monitoring and evaluation. Roles, functions, and responsibilities are not very well balanced among the central, regional, and local levels and the education sector lacks high-level managerial and technical capacity to provide strategic and operational guidance. Very few incentives are in place to motivate employees and the composition of human resources in the sector and the deployment of skills at different sector levels need to be improved to enhance efficiency. Finally, there is a serious lack of physical resources, ranging from buildings and facilities to furniture, office equipment, and communications equipment.

# 4. Economy and Opportunities for Growth

## 4.1 Introduction

71. Niger's economy is reliant on primary commodities and aid, making the economy dependent on the vagaries of the weather (Figure 4.1), changes in raw material prices, and donor sentiment. Strong growth supported by agriculture in the 1960s was followed by economic decline as a result of several years of drought in the early 1970s and the oil crisis. Growth resumed led by an expansion of uranium exports until its prices collapsed in the early 1980s. In combination with another severe drought, it led to yet another period of economic decline which went hand in hand with political instability, a banking crisis, and followed by a sharp devaluation of the currency in 1994. The past 15 years were marked by relatively strong and less volatile growth aided by favorable commodity prices, more favorable rains, increases in public investment, and high levels of aid. Still, per capita income in 2014 was at about the same levels as 25 years earlier in 1990 and almost 30 percent lower than in 1960. Between 2007 and 2016, donors contributed 8 percent to GDP (in 2015, even 11 percent) and financed about 33 percent of the country's budget.



Source: National Advisory Committee on Environment and Sustainable Development (Comité National Consultatif pour l'Environnement et le Développement Durable, CNECDD) 2013 and WDI 2016.

72. **The steady growth experienced over the past decade and a half may not last.** External security threats originating from Niger's northern neighbors Mali and Libya as well as from Boko Haram in the south put increasing pressure on public finances as more resources have to be allocated to the security sector. Unfavorable commodity prices for oil and uranium, the recession in Nigeria, and the devaluation of the naira put further strain on the economy. With climate change manifesting itself more visibly, it seems unlikely that the period of relatively favorable rains (Figure 4.1) will last indefinitely. As the economy continues to rely heavily on agriculture, a major contraction of economic activity remains a real possibility. Continued rapid population growth increases the vulnerability of the economy as stresses on natural resources (fertile land, water, and forests) increase with time. So far however, these doom scenarios have not materialized and GDP growth remained relatively strong in 2015 at 3.6 percent (0 percent per capita).

73. To avoid continued exposure to shocks, the economy will need to become more resilient and productivity needs to increase. The challenge is how. Investments in human capital will be needed to improve the quality of the key factor of production. The business environment will need to improve to increase the rate of return to investments. In terms of sectors, the most promising growth path is to improve productivity in agriculture and livestock given the importance of these sectors in economic terms, to promote agro-industrial transformation and to take advantage of the fast-growing extractives sector to invest in the country's human capital base. In the longer term, Niger would need to expand its export basket to non-extractive sectors and possibly the generation of remittances. There is scope for this as Niger's economy is in relative symbiosis with that of Nigeria which acts as a destination for exports, source of fiscal revenue through reexports, source for remittances, and as a source of imports, in particular food. Niger imports about 60–70 percent of its grain from Nigeria.<sup>32</sup>

#### Box 4.1: Niger's economic symbiosis with Nigeria and consequences of the naira devaluation

Niger's economy is heavily integrated with that of Nigeria. Niger shares 1,500 km of borders with its southern neighbor and Niger's main cities are located close to the border, including the capital Niamey. Corridors to Niamey are also a path for informal reexports and trade smuggling to Nigeria.

Nigeria is a key destination market for Niger exports, first among which are livestock exports. Livestock products are Niger's main exports, with Nigeria receiving more than 95 percent of the total livestock products exported from Niger. However, these exports have declined by 28 percent in terms of value and 30 percent in terms of quantity since 2010, though these figures may be underestimated. In fact, live animal exports are far more likely to pass through informal channels given the openness of the border, nontariff barriers, and multiple livestock markets along the 1,500 km border. While exports of livestock to Nigeria are not quantified with accuracy, conservative estimates put these exports in the range of US\$150–190 million yearly, about 2 percent of GDP.

Reexports are another aspect of trade between Niger and Nigeria. Niger functions as a warehouse state for products that are heavily taxed or subject to import restrictions in Nigeria, including used cars, textiles, rice, and cigarettes. In 2014 and 2015, the value of reexports to Nigeria represented 15 percent and 12 percent of the GDP, respectively. While these figures are not part of Niger's trade balance, they however contributed the equivalent of approximately 1 percent of GDP to the national budget each year in terms of customs duties.

The cumulated effect of lower demand from Nigeria because of the recession in Nigeria for livestock and other products exported by Niger and the lower transit trade is significant. The impact of transit trade alone could be about 0.15–0.2 percent of GDP reduction in growth. The negative impact is mitigated to some extent by lower prices of imports from Nigeria. Cereal imports from Nigeria, which account for 2 percent of GDP, play a major role in food security. Well-organized distribution channels supply Niger's markets from regions of Nigeria where there is surplus production. The substantial naira devaluation affected prices of food products favorably, even without full pass-through of this devaluation.

Remittances from Nigeria are equivalent to 0.6 percent of GDP. While less than what other countries attain (see Figure 3.1), a non-negligible amount. Investment flows from Nigeria in recent years have been substantial, equivalent to 1 percent of GDP, due to one large investment in cement. It is unclear whether the situation in Nigeria will affect the prospects of any follow-up investments.

Finally, under an agreement with Nigeria, Niger imports around 80 percent of its electricity needs from Nigeria at a relatively low cost, which makes it possible to supply consumers at relatively low prices. There is no impact of the devaluation on electricity, as it is priced in euros.

Source: World Bank. 2016. Impact of Nigeria's Economic Woes on Neighboring Economies: Update.

<sup>&</sup>lt;sup>32</sup> http://www.inter-reseaux.org/publications/revue-grain-de-sel/51-special-issue-nigeria/article/nigeria-s-role-in-niger-s-food.

## 4.2 Sources of Growth

74. **On the output side, the primary sector continues to be the main driver of growth.** The primary sector has represented 45 percent of GDP on average over the last 15 years (Figure 4.2). Within the primary sector, agriculture is the main economic activity with a share of 27 percent of GDP. Livestock with 10 percent of GDP is also an important source of revenue and, as was illustrated in Chapter 2, a key source of wealth for households.

There are few indications of structural transformation. Agriculture remains the 75. dominant sector in the economy and sectors such as manufacturing (6 percent of GDP), construction and public works (3 percent of GDP), and production of electricity gas and water (1 percent of GDP) are relatively small and underdeveloped. More than 60 percent of GDP is generated in the informal sector. The share of the secondary sector in GDP did increase over the past 15 years, however. It averaged 19 percent in 2016, up from 13 percent in 2010 and from 2 to 5 percent in the early 2000s. This increase is due to the expansion of the extractives industry and not due to growth in industrial production. Niger has significant mineral wealth with deposits of uranium, gold, coal, and recently crude oil being commercially exploited. The extractive industry generates significant though varying levels of revenue for the Government, from 11 percent of total revenue in 2010 to 27 percent in 2012 but down in 2015 as a result of the decline in commodity prices. The large contribution of the (formal) extractives sector to government revenue is unsurprising given that Niger's tax base is very narrow as most of the informal sector does not contribute to government revenue. Extractives are the fastest growing sector (25 percent on average between 2010 and 2015), but variability in commodity prices affects investments and accentuates growth volatility in agriculture.

76. The tertiary sector generates around 40 percent of GDP, down from 45 percent of GDP in the early 2000s. The relatively high contribution of the tertiary sector is not so much the result of the development of a more modern section of the economy as the reflection of the importance of import and export trade and the cost of transportation. Commerce and transport and the public sector represent the most important activities in the tertiary sector with shares of 12 percent of GDP. Telecommunications is demonstrating the fastest growth in the tertiary sector (12 percent growth per annum on average between 2007 and 2016), followed by the public sector which increased 9 percent per annum over the same period.

77. **Productivity in agriculture is low.** A comparison of value added and employment shares shows that productivity in agriculture is low compared to the industrial and service sectors. The value added per worker in agriculture is estimated at 328,000 CFAF as opposed to 632,000 CFAF and 1,100,000 for those working in the secondary and tertiary sectors respectively. Also, in comparison to other countries in the region agricultural productivity low. Using WDI data, the GDP/worker ratio in Niger is half that of Sub-Saharan Africa.<sup>33</sup> The sector is handicapped by inadequate extension services,<sup>34</sup> limited use of equipment and modern inputs, limited control of water, a weak organization of producers, and declines in soil fertility. Weak organization of

<sup>&</sup>lt;sup>33</sup> World Bank staff estimates, 2014.

<sup>&</sup>lt;sup>34</sup> République du Niger, and FAO (Food and Agriculture Organization). 2009. Analyse diagnostique du système d'appui conseil. Mise en place d'un dispositif intégré d'appui conseil pour le développement rural au Niger.

marketing channels and logistics—including inadequate storage facilities and limited ability to process agricultural products—also account for low productivity in agriculture.

78. On the expenditure side, growth of investment by the public and private sector, and exports contributed to the growth performance over the past decade (Table 4.1). Increased aggregated demand also resulted in an acceleration of import growth. Household consumption increased slowly, at about 4.2 percent per annum (or 0.2 percent per capita – in line with the relatively slow decline in poverty) between 2007 and 2016 remained behind the rapid increases in investments which increased by 12 percent per annum. As a consequence, the share of household consumption in GDP declined from 79 percent in 2007 to 72 percent in 2016.

79. The public sector played an increasing role in Niger's economic performance. The National Development Strategy 2010–15 envisaged major public infrastructure projects in education, health, roads, and the energy sector. To implement it the Government increased the share of public investment from 7 percent to 15 percent of GDP between 2007 and 2016. Public investment supporting the Plan de Développement Economique and Social (PDES) included large-scale investment in transport (railroad) and construction and significant rehabilitation of public buildings and roads in major cities. The Government also invested in agriculture (through the *Nigériens Nourrissent les Nigériens* [3N] project) and in major projects like the railroad, the Kandaji hydro dam, and the Soraz oil refinery. The efficiency of these large-scale investments, which boosted growth in the short run, is limited as most of these projects are still not (fully) operational. Moreover, the multiplier effect was limited as these projects were high in import content. Like public investments, private investments also increased rapidly largely due to investments in mining.

80. A growth accounting exercise (Figure 4.2) shows that increases in labor account for most of the growth in Niger, followed by increases in the capital stock. This is in line with the country's high population growth and, more recently, increases in public and private investments in infrastructure and extractives. There is little embedded technical change in these investments and TFP is still catching up from a large decline in 1980. Other components, particularly changes in human capital, play a much smaller role in explaining growth. The latter is unsurprising given the low quality of education.

81. **Exports are undiversified; imports show a potential for substitution through domestic production.** Uranium is the main export commodity, making up as much as 70 percent of total exports in 2011, a share that declined to 46 percent in 2015 following the drop in prices. Gold is Niger's second largest export product followed by live animals—cows, sheep, and goats which are mostly sold to Nigeria and Chad. In 2012, Niger exported more than 1 million head each of sheep and goats and over 425,000 head of cattle.<sup>35</sup> This represents less than 10 percent of the total value of exports, an underestimation of its true value as much of the export of live animals remains unrecorded. Exporting of fuel products declined from 26 percent of total exports in 2013 to 8 percent in 2015 due to the decline in oil prices. Food and consumer goods comprise the main imports, almost 30 percent of total imports in 2015. Niger is structurally food deficient, suggesting a potential market for domestic production provided productivity in agriculture can be raised.

<sup>&</sup>lt;sup>35</sup> *Stratégie de Développement Durable de l'Elevage* (SDDEL) 2012–2035.

Driven by the boom in public investments, capital goods comprised about 25 percent of total imports in 2015.

	Real GDP		GDP pe	r capita	Share of GDP		Annual growth 2007-2016	
	2007	2016	2007	2016	2007	2016	GDP	Per capita
Primary sector	843.1	1221.7	60,032	61,169	44%	41%	4.2%	0.2%
Agriculture	504.1	811.9	35,894	40,650	27%	27%	5.4%	1.4%
Livestock and hunting	251.7	293.3	17,922	14,684	13%	10%	1.7%	-2.2%
Forestry	55.2	56.0	3,928	2,802	3%	2%	0.2%	-3.7%
Fishing	32.1	60.6	2,287	3,034	2%	2%	7.3%	3.2%
Secondary sector	261.1	578.8	18,589	28,977	14%	19%	9.2%	5.1%
Extractive activities	80.8	258.5	5,750	12,945	4%	9%	13.8%	9.4%
Uranium		87.9		4,399		3%		
Petrol		123.9		6,203		4%		
Gold		29.1		1,456		1%		
Informal extractives		19.2		962		1%		
Related activities		9.9		493		0%		
Manufacturing	106.6	182.1	7,588	9,117	6%	6%	6.1%	2.1%
Electricity, gas and water	22.2	41.9	1,578	2,096	1%	1%	7.3%	3.2%
Construction	51.6	96.3	3,673	4,820	3%	3%	7.2%	3.1%
Tertiary sector	794.5	1206.8	56,571	60,424	42%	40%	4.8%	0.7%
Commerce and repairs	262.0	368.1	18,656	18,428	14%	12%	3.8%	-0.1%
Transport and storage	102.5	117.5	7,301	5,882	5%	4%	1.5%	-2.4%
Hotels and restaurants	28.8	36.3	2,051	1,819	2%	1%	2.6%	-1.3%
Communication	32.3	78.3	2,303	3,920	2%	3%	10.3%	6.1%
Other commercial activities	116.3	139.4	8,282	6,980	6%	5%	2.0%	-1.9%
Public sector	218.9	435.1	15,585	21,785	12%	14%	7.9%	3.8%
Other services	33.6	32.2	2,393	1,612	2%	1%	-0.5%	-4.3%
GDP at factor costs	1898.8	3007.3	135,192	150,571	100%	100%	5.2%	1.2%
Taxes net of subsidies	144.7	257.8	10,305	12,906	8%	9%	6.6%	2.5%
GDP at market prices	2043.5	3265.1	145,498	163,477	108%	109%	5.3%	1.3%
Informal GDP	1299.1	1896.5	92,496	94,954	68%	63%	4.3%	0.3%
Consumption	1821.4	2642.9	129,683	132,322	96%	88%	4.2%	0.2%
Households	1493.3	2155.0	106,324	107,894	79%	72%	4.2%	0.2%
Public sector	328.1	487.9	23,359	24,428	17%	16%	4.5%	0.5%
Investments	471.0	1386.0	33,533	69,396	25%	46%	12.7%	8.4%
Private sector	337.8	941.3	24,053	47,129	18%	31%	12.1%	7.8%
Public sector Trade	130.2	444.7	9,268	22,267	7%	15%	14.6%	10.2%
Exports of goods/services	366.5	571.4	26,094	28,609	19%	19%	5.1%	1.0%
Imports of goods/services	615.3	1335.2	43,812	66,851	32%	44%	9.0%	4.8%

Table 4.1: Structure of the Niger Economy: 2007-2016

*Source*: Government of Niger 2015.



#### Figure 4.2: GDP, growth, and the external sector

Growth is volatile due to exogenous factors such as rainfall and commodity prices.



# *Relative to other sectors in the economy, productivity in agriculture is low.*



Mining products comprise the bulk of exports.



Growth is driven by increases in labor and more recently by capital accumulation and inceases in TFP.



Food and capital goods are key imports.

Imports by group of products



*Source*: IMF 2015, Government of Niger, WDI 2015, Staff estimates. *Note*: TFP = Total Factor Productivity.

## 4.3 Behind the Headline Numbers

82. Niger's economy is characterized by challenging initial conditions which increase the cost of doing business. Salient characteristics include unfavorable geographical conditions, high rates of population growth, a weak human capital base, a large informal sector (the nonagricultural informal sector is estimated to constitute between 23 percent and 29.5 percent of GDP), an underdeveloped financial sector, lack of infrastructure, and an unfavorable business environment.

83. As a landlocked country in the Sahel, options for farming and livestock rearing are limited by the harsh climate. Nearly 90 percent of the territory receives less than 350 mm of rain every year. Rainfall is extremely variable and not equally distributed across the country, leading farmers to adopt costly risk aversion strategies such as cultivating multiple plots at large distances from each other. Not only droughts but also floods occur regularly and reflect the most important climate risk the country is facing.

84. **High population growth rates and a weak human capital base limit economic opportunities.** Niger's high population growth of 3.9 percent per year places increasing pressure on arable land, which constitutes only 12 percent of Niger's land mass, water, and forestry resources. The stock of human capital is low despite significant progress in school enrollment. Niger lacks people with higher education. In 2011, gross secondary school enrollment was around 13 percent compared to 35 percent<sup>36</sup> in comparator countries. There were only 22,000 university students in 2011, most of whom were enrolled in humanities courses. Apart from the low numbers, and as discussed in the previous chapter, the quality of the education system remains weak, leading to a labor force that is largely unskilled and which leaves basic jobs in electricity, repairs, plumbing, or services to better-educated foreigners.

85. **The financial sector is shallow.** Lack of proximity of financial intermediaries due to dispersed population and weak infrastructure hinders the development of the financial sector. There are only 1.5 commercial bank branches per 100,000 adults.<sup>37</sup> In Agadez, for example, there are 8 points of contact for a population of about 130,000. Ninety-three percent of the adult population does not have access to any kind of financial services, thus limiting their ability to absorb shocks; make long-term plans; and invest in education, agriculture, or other entrepreneurial activities. Credit to the economy, a measure of the degree of financial intermediation, averaged 15 percent of GDP over the recent past, the lowest among the eight WAEMU member states. Of this credit, very little (2 percent) is invested in the agricultural sector despite the importance of agriculture for the economy. Less than 5 percent of the credit provided by the agriculture state-owned bank—Agricultural Bank of Niger (*Banque Agricole du Niger*, BAGRI)—went to the agriculture sector. Only 2.5 percent of lending of the whole banking sector went to agriculture.<sup>38</sup>

86. Agricultural financing is limited as many factors constrain its development. These factors include low population density that makes it unprofitable to service isolated areas using

<sup>&</sup>lt;sup>36</sup> WDI 2012.

<sup>&</sup>lt;sup>37</sup> WDI.

<sup>&</sup>lt;sup>38</sup> Short-term loans are defined as having a duration of less than two years. The duration of medium-term loans is fixed at between two years and ten years. Loans with a length of more than ten years are considered long-term loans. (BCEAO, "Décision No 397/12/2010 Portant Règles, Instruments et Procédures de Mise en Œuvre de la Politique de la Monnaie et du Crédit de la Banque Centrale des Etats de l'Afrique de l'Ouest," December 2010.)

traditional banking methods; the riskiness of agricultural loans; a lack of financial information on farmers/herders; the lack of collateral in rural areas; and a lack of organization of farmers. The Government's efforts to address the shortage of agriculture finance have achieved limited results and contributed to crowding out the private sector. Microfinance institutions have tried to serve this underserved agriculture market. However, a lack of liquidity, lack of competencies for agriculture lending, and other issues related to the microfinance sector are impediments. The current situation is one in which the main products of many microfinance institutions—short-term working capital loans with frequent expected repayments—are not well-suited to some of the longer-term agricultural activities while financial products adapted to the agricultural sector, such as micro-leasing or warrantage, are not on offer.



#### Figure 4.3: The business environment

Source: World Bank Doing Business 2016 and International Telecommunication Union (ITU) 2016.

87. **Digital finance, which is a promising way to improve financial inclusion, remains at a nascent stage.** The number of mobile money transactions per 1,000 adults was at 69 in 2014 compared to 87 in Burkina Faso and 636 in Côte d'Ivoire.

88. **The supply and quality of infrastructure are low.** Transportation is key for a large, landlocked country but road density is low and only 21 percent of roads in Niger are paved. Recent data indicate that nationally 77.3 percent of paved roads and 73.6 percent of unpaved roads are in

good or fair condition.<sup>39</sup> While it is only a small segment of the economy and the transport sector, air transport is potentially of high importance given its ability to link the country to high value added value chains (Paris is only a 5-hour flight away). Among the three international airports and<sup>40</sup> three domestic airports, the bulk of air traffic passes through Diori Hamani International Airport in Niamey. Most recent data indicate that traffic is limited, with approximately 130,000 passengers and less than 4,000 tons of freight a year.<sup>41</sup>

As a landlocked country, access to international markets is by all measures extremely 89. costly. Any added cost due to inefficient transport markets, burdensome and outdated regulations and agencies, and inadequate infrastructure is like an added markup on all that Nigeriens consume in imported products and that firms produce for external markets. Niger benefits from access to several international trade corridors, but all of them represent distances farther than 1,000 km. The shortest distance—1,035 km—is between Niamey and Cotonou. It is the most important transit corridor and accounts for about 80 percent of the total traffic. Lomé is 1,240 km away and captures about 15 percent of the traffic. Other ports are farther away and represent a modest part of transit for Niger: Tema 1,500 km away, Abidjan 1,700 km away, and Lagos 1,525 km away. In the next decade, the volume of traffic to Niger is expected to more than double. A comparison in the region finds that Cotonou-Niamey has slightly lower costs per ton-km than other corridors. However, transit time still takes 21 days on average and is subject to high variance of up to 40 days. Cost and time of transit are multiples of what is experienced in developed economies and estimates suggest that reform could lower costs by 15 percent on average.<sup>42</sup> Prices for millet and sorghum increase by 20–25 percent due to the border effect alone.<sup>43</sup>

90. Access to electricity is limited and power outages occur frequently. Despite an increase in the share of the population with geographic access to the grid from 17 percent to more than 23 percent, the share of the population actually accessing grid electricity increased is less than 9 percent.<sup>44</sup> Electricity is provided by the state-owned electric utility Electricity Company of Niger (*Société Nigerienne d'Electricité*, NIGELEC) which purchases two-thirds of its electricity from Nigeria at a subsidized rate of US¢3 per kWh, a rate established in 1977.<sup>45</sup> Imports lag behind the fast growing demand and are constrained by transmission capacity. NIGELEC has pro-actively engaged in various investment plans to partially meet the generation and transmission gaps, including a two-year rental contract for 30 MW of small diesel units whose generation costs are

<sup>&</sup>lt;sup>39</sup> Niger Ministry of Works.

<sup>&</sup>lt;sup>40</sup> In addition to the airport at Niamey, the other two international airports are the Zinder International Airport, located 900 km east of Niamey, and the Mano Dayak Airport in Agadez, 960 km northeast of Niamey.

<sup>&</sup>lt;sup>41</sup> Niger Ministry of Works, Statistics Department.

<sup>&</sup>lt;sup>42</sup> Nathan Associates. 2012. Impact of Road Transport Industry Liberalization in West Africa. Report for USAID.

<sup>&</sup>lt;sup>43</sup> Aker, Jenny C., Michael W. Klein, Stephen A. O'Connell, and Muzhe Yang. 2014. "Borders, Ethnicity and Trade." *Journal of Development Economics* 107.

Interestingly they also find that price differences are lower when traders of the same ethnicity (Hausa) are involved, thereby suggesting that costs diminish when trade is facilitated and also suggesting that trade may naturally happen more easily in regions where Hausa traders are present in larger numbers (such as the Maradi-Katsina-Kano corridor, Zinder-Daoura-Kano corridor).

<sup>&</sup>lt;sup>44</sup> Système d'Information Energétique. Ministère de l'Energie, Niger.

<sup>&</sup>lt;sup>45</sup> Given this price, alternative choices of production would cost a much higher price. Diesel generation would cost about US¢30 per kWh and coal generation US¢12 per kWh. "Niger's Infrastructure: A Continental Perspective," June 2011, pp 29.

close to US¢30 per kWh and the development of the Kandaji multipurpose hydropower project, which is expected to enter into operation in 2020–2021.

91. **The ICT infrastructure is substandard and tariffs are high.** Numbers from 2011 indicate that the use of mobile phones and Internet is limited, with only 27 mobile phone subscriptions per 100 people and only 1.3 percent of the population using Internet services, the lowest among its comparator countries. The total number of fixed broadband subscriptions is less than 2,000.<sup>46</sup> Tariffs are high, a reflection of the lack of competition in a market in which only two providers are active.<sup>47</sup>

92. **Counterfactual analyses show that significant gains could be made if inefficiencies in infrastructure were fixed.** Niger could grow by as much as 4.5 percentage points per capita if it expands and improves its infrastructure, particularly in the road sector. Improving the condition of paved and unpaved roads would facilitate and increase trade within the country, boosting economic growth by 1.71 percentage points. Power would contribute around 1.51 percentage points to per capita growth if generation capacity and national access rates—which as of today are among the lowest in the region—were increased. ICT would also make an important contribution to economic prospects (1.31 percentage points), provided the mobile phone and Internet markets continue expanding. The Millennium Challenge Corporation (MCC) analysis shows that investing in making water more available is a worthy venture and the value added per hectare for rice production improves by over 75 percent when water management infrastructure is used. Yields in treated areas increased substantially for onions, Niger's fifth largest export, which experienced yield increases from 26 tons per hectare to 41 tons per hectare.

93. **Rather than aiming to offset unfavorable initial conditions by a favorable business environment, the reverse is the case. While efforts aimed at improvement are ongoing,** Niger continues to score very low on the Doing Business indicators and burdensome institutional and regulatory barriers continue to affect private sector operators. Significant differences in the tax system exist, for instance, between formal and informal enterprises, and competition from the informal sector which is lightly taxed reduces incentives for growth in the formal sector. The time devoted to dealing with government requirements and regulations is much higher in Niger than elsewhere in Sub-Saharan Africa or in other low-income countries.<sup>48</sup> For example, the time and documents needed to imports are nearly twice the Sub-Saharan Africa average and are worse than for other similar landlocked countries.<sup>49</sup>

<sup>&</sup>lt;sup>46</sup> International Telecommunications Union, ICT Eye, 2011.

<sup>&</sup>lt;sup>47</sup> Niger's high illiteracy rate, which is greater than 70 percent, is expected to reduce relative demand for telecommunication services.

<sup>&</sup>lt;sup>48</sup> Enterprise Survey in 2009.

<sup>&</sup>lt;sup>49</sup> Doing Business 2013.



#### Figure 4.4: Access to finance (2014)

Source: Financial Inclusion Index (FINDEX), Central Bank of the States of West Africa (La Banque Centrale des Etats de l'Afrique de l'Ouest, BCEAO), The Microfinance Sector Regulatory Agency (L'Agence de Régulation du Secteur de la Microfinance, ARSM) 2014.

94. **Niger has enjoyed a relatively stable macroeconomic policy framework.** Niger benefits from its membership of the WAEMU which, together with the BCEAO, oversees macroeconomic, monetary, and fiscal management. This has helped maintained a sound macroeconomic policy. As a consequence, inflation has remained low (less than 3 percent). WAEMU membership also comes with downsides as the absence of the possibility to rely on monetary and exchange rate policies puts the onus on fiscal policy to make appropriate adjustments when the economy faces a shock. Typically, such adjustments will take place in the investment budget, which makes public investments subject to large, inefficient and costly, swings. Faced with low natural resource prices, a devalued naira and increased security spending, Niger's authorities are presently facing the need to make such adjustments.

95. The level of public debt is manageable and stood at 42 percent of GDP in 2015. Niger reached the completion point under the Enhanced Heavily Indebted Poor Countries (HIPC) Initiative in April 2004 and in 2006 benefited from Multilateral Debt Relief Initiative (MDRI) assistance from the African Development Fund, International Development Association (IDA),

and the International Monetary Fund (IMF). The debt relief contributed to a reduction of nominal external debt from around 90 percent of GDP at end-2000 to 17 percent of GDP at end-2010. The level of external public debt in Niger has increased significantly from 17 percent of GDP in 2010 to 30.4, percent of GDP in 2016 due to the Government's involvement in the financing of natural resource projects. The private sector's debt is related to the large oil and uranium projects and the stock of external private debt was 28 percent of GDP in 2014 and is projected to stabilize just above 20 percent in the long run.

96. Niger's medium-term outlook remains adequate but has significant downside risks. Niger's medium-term macroeconomic prospects remain positive with a projected growth of 5.5 percent on average through 2019 and higher from 2020 onwards with an expected resumption of commodity prices. Although the current account deficit has recently increased following investments in the extractive industries, the Government's foreign exchange reserves at the BCEAO are equivalent to 4.4 months of imports and are broadly adequate. The Government envisages a strong fiscal consolidation path driven by better expenditure efficiency while the current account is expected to improve as a result of more efficient public investment and better performance of the extractive sectors. These results are subject to significant downside risks. Niger is enduring the effects of structural changes that affect the economy, including commodity price shocks along with continued tense security situation and the impact of the recession in Nigeria. The risk that commodity prices do not return to their levels during 'the glory days' both for oil and uranium is high; persisting security challenges take a toll on public resources with a level of security spending estimated at 5 percent of GDP in 2015, a situation which may last and remain tense for the years to come. The depreciation of the naira significantly affects Niger's trade, mainly agriculture and livestock. If these risks materialize, the macroeconomic situation may deteriorate and represent a major constraint to growth.

## **4.4 Policy Simulations**

97. To assess different pathways to poverty reduction systematically, a range of a range of scenarios were simulated to assess the economy-wide effects of different government policies and economic shocks. To this end a Computable General Equilibrium (CGE) model was built. It is a single country model drawn from the World Bank's global CGE model (LINKAGE). The model is calibrated on a Social Accounting Matrix (SAM) comprising 45 sectors, 7 factors, and 10 households representing each consumption decile. The model is a recursive dynamic CGE model that links a sequence of static equilibriums with a set of equations, which update, at every period, a selection of macroeconomic variables (population growth, capital stock, and productivity). The SAM was developed by the Niger National Bureau of Statistics and expanded to include four types of labor, capital, land, and natural resources to enable a richer set of reforms to be modelled. Similarly, the single representative household was expanded to ten households, each representing a consumption decile. The expanded SAM uses data from the establishment survey, wage indicator survey, household expenditure survey, and GTAP (Global Trade Analysis Project) database. While much effort has gone into carefully designing the CGE, simulation results still need to be interpreted with great care.

98. Given the agricultural base of the economy and the depth of rural poverty, the first scenario that was attempted was one in which the productivity of agriculture improves. The results lend support to the notion that improvements agricultural technology have the potential to

lift activity and incomes of the poorest households. Investment that leads to a 10 percent productivity boost to capital in the agriculture sector leads to a 3.8 percent expansion of the sector by 2030, relative to the baseline.<sup>50</sup> The productivity boost also supports higher incomes and by 2030, GDP is 1.7 percent higher than would otherwise be the case.

99. While all households enjoy a boost in consumption, poor households enjoy the highest boost. The consumption of the bottom 40 percent of households (consumption deciles) increases by 3.6 percent. In contrast, the consumption of the top 60 percent of households increases by 2.2 percent. This occurs for two main reasons. First, poor households derive most of their earnings from agriculture. Second, the consumption basket of low-income households is heavily weighted toward agriculture products, so the price of their consumption basket falls by a large amount. In contrast, the income boost for the top deciles is more muted since they derive their income mainly from nonagriculture sectors. In addition, the consumption basket for rich households is weighted toward services, so the fall in the price of their consumption is also more muted.

100. The simulations also demonstrate that only in combination with improvements in trade facilitation, do investments in agriculture generate the most significant results. This is unsurprising as increased agricultural production needs to find a market. A 10 percent reduction in transportation costs (reducing iceberg trade costs) would lead to a 19 percent increase in exports by 2030; the cost reduction means that effectively exporters are receiving an additional 1–2 percent in income for each unit of exports. The lift in export volumes combined with higher agriculture productivity support an expansion of GDP of around 3 percent relative to the baseline by 2030.

101. The benefits of improving trade facilitation and boosting trade are spread more evenly across rich and poor households because this reform benefits all sectors of the economy. In combination with the agriculture productivity boost, improving trade facilitation and boosting trade benefits poor households more than rich households. Consumption of the bottom 40 percent increases by 10 percent, while consumption of the top 60 percent increases by 7.5 percent.

102. A number of other simulation have been carried out, including ones in which there are major investments in education, in which the efficiency of public investments does not improve and one that assesses the consequences of an adverse weather event. These are presented in Annex 2.

<sup>&</sup>lt;sup>50</sup> The cost of such investments has not been considered in the simulation, so these results can be interpreted as the upper end of possible effects.

	2013	2014	2015e	2016p	2017p	2018p	2019p	2020p
Real Economy	(annual percentage change, unless otherwise specified)							
Real GDP	5.3	7.0	3.5	4.5	5.2	5.5	5.4	7.4
Non-resources GDP	4.2	7.9	4.1	4.3	5.0	5.6	5.5	6.0
Per Capita GDP (US\$ Atlas Method)	372.7	382.7	380.5	383.7	388.2	395.3	402.4	
Government Consumption	26.3	16.3	11.0	-3.5	9.2	4.9	5.0	5.1
Investments	4.8	6.6	7.0	9.6	5.9	6.4	7.4	
Imports	2.6	7.0	9.6	-3.9	13.1	10.1	9.2	10.2
Exports	6.5	-8.8	-10.1	-5.0	7.4	11.9	11.3	31.2
Consumer price inflation (average)	2.3	-0.9	1.0	1.6	2.0	2.1	2.0	2.0
Fiscal Accounts			(Percen	t GDP, unl	ess otherwi	se indicate	ed)	
Expenditures	27.2	31.0	32.7	26.5	28.1	27.3	26.4	26.0
Revenues	16.6	17.5	18.1	15.3	16.1	16.8	17.5	19.1
Overall balance (commitment basis,	2.6	0.0	0.1	<i>(</i> <b>-</b>	7.4	( )	-4.7	2.0
including grants)	-2.6	-8.0	-9.1	-6.5	-/.4	-6.0		-2.9
	(Annual change, in percent of beginning-of-period broad money)							
Selected monetary Accounts			8,		0 0	•		
Base money	10.1	25.7	3.6	14.4	9.4	9.7	11.5	9.6
Credit to non-government	2.5	6.1	6.8	7.5	4.2	4.3	3.9	4.6
				CDD 1			I)	
Balance of payments			(Percen	t GDP, unl	ess otherwi	se indicate	ed)	
Current Account Balance	-15.1	-15.4	-18.1	-15.4	-18.0	-18.5	-18.1	-15.4
Imports of goods and services, f.o.b.	26.3	26.2	27.5	25.3	26.7	27.3	27.7	28.1
Exports of goods and services, f.o.b.	20.7	17.5	15.2	13.8	13.8	14.3	14.8	17.9
Foreign Direct Investment	8.1	8.9	6.9	7.7	8.8	10.5	10.9	8.9
Gross reserves (in US\$, eop)							4.0	
In months of next year's imports	4.2	4.8	4.6	4.2	3.9	4.0	4.0	4.1
Total Public Debt	27.2	33.7	41.9	47.0	51.5	53.0	53.9	52.4
Public External Debt	22.6	25.1	30.4	34.1	35.8	37.1	36.8	38.5
Public Domestic Debt	4.6	8.7	11.5	12.9	15.3	16.0	15.8	14
Foreign aid	11.1	8.9	10.4	9.5	9.0	8.9	8.4	7.5
Terms of trade (percentage change)	-3.1	-19.4	-7.5	11.0	-4.9	1.2	-4.7	-4.7
Exchange rate (average)	494.2	536.8	596.9	596.9	596.9			
Memorandum items:								
GDP (Nominal-local currency)	3,703	4,077	4,242	4,430	4,761	5,130	5,504	5,993

#### Table 4.2: Selected Economic and Financial Indicators, 2013–2020

Source: Nigerien authorities; IMF and World Bank estimates and projections, November 2016.

# 5. Governance

## **5.1 Introduction**

103. Niger can be characterized by the recurrence of political, social, economic and security crises. Following independence in 1960, the country has known three coups (1974, 1996, and 2010); one presidential assassination (1999); and four returns to civil rule (1989, 1996, 1999, and 2011). Rebellions (1990 and 2007), coup attempts (1976 and 2015), soldier mutiny (2002), and major droughts and hunger in 1968–1973, 2005, and 2010 add to the volatile mix of Niger's politics. Early 2016 the country was in the grip of presidential elections and the effects of increased insecurity.

104. **Niger has been affected by terrorist attacks.** Islamist militant sects have launched suicide attacks in Agadez and at the uranium mine in Arlit. There have been several suicide car bomb attacks and kidnappings of foreigners for ransom. Niger is battling an insurgency by the Islamic militant sect Boko Haram, with a state of emergency declared in the Diffa region and about a third of Diffa's population forcibly displaced. Spillovers from crises in northeast Nigeria, Libya, Chad, and northern Mali affect the country, with Niger having to cater for some 198,000 refugees.<sup>51</sup> Niger has placed a significant group of soldiers as part of the UN's peacekeeping mission, United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA), in the Gao region in northern Mali.





Source: Public Expenditure and Financial Accountability (PEFA) 2008, 2012, and 2016.

105. Political crises occur regularly and lead to leadership changes without plunging the country into violence or instability. The price that is paid for this relative stability are poor governance indicators (Figure 5.2) and the economic exclusion of the majority of the population<sup>52</sup>. Public financial management (PFM) is one area in which governance challenges touch upon the

 <sup>&</sup>lt;sup>51</sup> World Bank, and UNHCR (United Nations High Commissioner for Refugees). 2016. "Forced Displacement by the Boko Haram Conflict in the Lake Chad Region." Data provided by UNHCR Niger in May 2015.
<sup>52</sup> BTI 2016.
core functions of the state. The overall budget increased from 22.3 percent of GDP to 30.1 percent of GDP between 2012 and 2015, reflecting a significant increase in public investments which reached 17 percent of GDP in 2015, up from 11 percent of GDP in 2012. This has been accompanied by an increase in the level of external public debt which has more than doubled, increasing from 26 percent of GDP in 2012 to 53 percent of GDP in 2016 due to the Government's involvement in the financing of natural resource projects, infrastructure, and social spending. While budgets increased in size, budget execution remains very weak. In fact, according to the 2016 PEFA report, PFM is too weak to be satisfactory. It is so weak that budgetary discipline is not assured. These weaknesses show up on low budget execution rates which, between 2013 and 2015, varied between 68 percent and 86 percent, with large differences between years (Figure 5.1). Weak PFM is not a new phenomenon. It was already clearly identified in the 2003–2004 PEMFAR report and has been reflected in the PEFA scores since. Improvements in certain areas have even been registered but these have largely been undone by deteriorations in other areas. Consequently, there has been very little progress overall.

106. Another area where poor governance has real consequences is with respect to the business environment which is severely constrained. Nigerien firms report spending an average of 21 percent of their time dealing with regulatory requirements as compared with an average of 6.8 percent for Sub-Saharan Africa.<sup>53</sup> Trade is equally constrained by Niger's regulatory and institutional environment and the lack of a reliable judicial system to resolve disputes. It takes an inordinate amount of time to file paperwork (192 hours for documentary compliance when importing), there are costly delays at border crossings (114 hours when importing), and bribes or informal payments may be expected. Additional delays may be created or payments solicited at roadblocks and checkpoints along major transportation arteries. Domestic and international regulation of the transportation and trucking sector may distort or limit competition within the sector, resulting in high prices and poor-quality service. Niger ranks 158 out of 189 countries on the Trading Across Borders indicator in Doing Business 2016. This is not simply a function of being landlocked, since Niger performs worse than the other landlocked comparator countries such as Mali (ranked 82) or Burkina Faso (103).

107. Governance indicators, particularly those associated with inclusive policies, improved over the past decade but on average they remained unchanged as others deteriorated. There has been a marked and encouraging improvement in a number of areas of governance over the past 15 years, with improvements in voice and accountability, economic managements, social inclusion and equity, and anticorruption, changes that are associated with more inclusive policies. Greater inclusiveness of the regime is reflected by the 3N program which is aimed at reducing widespread food insecurity by improving agricultural productivity and an evolving decentralization process with citizens gradually becoming more involved in municipal councils and school governance structures. Social indicators seem to reflect this greater inclusiveness and have been improving. These improvements took place in an environment in which the security landscape worsened, with concomitant declines in governance indicators related to political stability and the absence of violence and terrorism.

<sup>&</sup>lt;sup>53</sup> The amount of time devoted to dealing with the regulatory burden is even higher for medium sized firms (29.1 percent) and large firms (24.4 percent) in Niger. Enterprise Survey.



#### Figure 5.2: Governance indicators: 1996–2014

*Source:* World Bank 2015. World Governance Indicators, Country Policy and Institutional Assessment (CPIA) various years, and Doing Business 2016. Transparency International 2015. Perception of Corruption Index.

# 5.2 Niger's Political Settlement

108. The political settlement in Niger is characterized by a relatively small elite, who have an interest in maintaining overall stability but who also compete with each other over access to rents from the country's natural and environmental resources, illegal trafficking, and aid as well as profits from skimming public procurement.<sup>54</sup> The political settlement and the ruling coalition changes over time as new powerful actors are coopted and others sidelined. The Nigerien political settlement is thus dynamic and in a continuous process of redefinition of the elite coalition based on a consensus to share political power and economic resources. Still, the size of the inner circle remains fairly small and relations are personalized as opposed to rule based. This is most evident in the judicial system which is overburdened and underresourced. There are few registered lawyers outside Niamey, the cost of legal aid is too high for the vast majority of the population and allegations of corruption frequent.<sup>55</sup>

A limited number of key actors can be identified. There are those providing security, 109. comprising the gendarmerie (some 16-17,000 people), the National Guard, the police, and the military. The latter are small in number (approximately 12,000) but powerful. They are well paid, equipped, and organized. The military are battle hardened, and officers are trained at one of the best schools in the country. The military benefit from external strategic intelligence and operational support, largely from France and the United States.<sup>56</sup> They are the 'guardians' of the country's significant natural resources, uranium and more recently oil, and a partner in the war on terror. Traditional chiefs and *sultans* as well as religious leaders derive their power from their social status and their ability to mobilize citizens.<sup>57</sup> Businessmen—powerful traders in particular and politicians hold each other in a tight embrace, with politicians depending on the financial support of business men to win elections, while business men depend on politicians to gain favorable treatment with respect to public contracts, licenses, or (import) tax exemptions. A final group that needs to be recognized are Niger's deprived citizens. Though generally powerless, the military coups of 1974, 1996, and 1999 were predicated by poor economic management and popular dissatisfaction (see Box 5.1). The greater inclusiveness in policies observed starting 2000 may be a reflection of leaders realizing the importance of ensuring that the (minimum) economic needs of the population are met.<sup>58</sup>

110. **The elite coalition remains fluid.** The survival of the ruling elite coalition depends on its capacity to distribute privileges and to weaken opponents through co-optation or other means.<sup>59</sup> Each formation of government in Niger thus reflects an equilibrium in terms of regional, communitarian, and political affiliation. This subtle equilibrium which has created de-facto stability to the country is permanently threatened by three factors: (a) the inclination to accumulate

<sup>&</sup>lt;sup>54</sup> In the typology of political settlements developed by Brian Levy (2014): Working with the Grain, Niger can be characterized as personalized-competitive-personal where politics is competitive, but the rules of the game governing both the polity and the economy remain personalized.

<sup>&</sup>lt;sup>55</sup> BTI, 2016, page 9.

<sup>&</sup>lt;sup>56</sup> In September 2014, the U.S. Department of Defense announced plans to erect a second surveillance hub in Niger, expanding its use of unarmed drones for intelligence gathering. France, meanwhile, committed an additional 3,000 troops to support ground operations in the region. (International Crisis Group 2015).

<sup>&</sup>lt;sup>57</sup> The important role of traditional leaders is a legacy from the colonial period during with the French colonial power reinforced the power of certain ethnic groups, notables, religious authorities and traditional leaders to compensate for its lack of human resources in Niger. This is not specific to Niger as it was common throughout whole sparsely populated Sahara. The specificity of Niger is that the postcolonial authorities chose to preserve the power of these traditional authorities.

<sup>&</sup>lt;sup>58</sup> Mueller, L. 2016. "Democratic Revolutionaries or Pocketbook Protesters? The Roots of the 2009–2010 Uprisings in Niger." *African Affairs* 112 (448): 398–420.

<sup>&</sup>lt;sup>59</sup> See for instance Bertelmann Stiftung 2016 (BTI 2016) on how little progress is made in fighting corruption, whereas at times allegations of corruption or other legal proceedings serve to disqualify political opponents.

power and resources and to narrow the elite coalition to the point that some of its elites consider that they do not have sufficient interest to stay in this coalition (as in 2010);<sup>60</sup> (b) the inability to address or adapt to shocks (food crisis, economic downturn) which may lead to internal splits among the elites and lead some of them to leave the coalition; and (c) a generational conflict in which an increasingly young population does not feel represented by its leaders. In all instances, the risk of authoritarian drift is real (to eliminate the discontent voices), and the risk of a (violent) political crisis never far away.

## Box 5.1: The complex developmental role of the army

Though Niger has experienced a number of coups, it would be inappropriate to consider the army as disruptive to the development process. Coups in Niger are characterized by a high degree of 'legitimacy' in which the army acted as arbiter in political games. In 1996, Ibrahim Baré Mainassara promised a 'democratic correction' to solve the institutional deadlock due to the cohabitation between the presidential and the National Assembly majorities since 1995. The 1999 coup was carried out by Commandant Wanké, partly to reduce the power of the military, and indeed, Commandant Wanké respected his commitments to hand over power to civilian authorities. In 2010, Salou Djibo led a coup against Mamadou Tandja, again to address a situation of extreme political tensions after what was called a 'constitutional coup' by President Tandja himself. For some coups, the motivation of the perpetrators seemed to be the rebalancing of political forces. This was the case in 1999 and 2010.<sup>61</sup> As Niger's coups appeared justifiable, almost all were accepted by political actors, civil society, and the international community. In 2010, for instance, the military coup even enabled Niger to be back on the international scene after the suspension of European Union cooperation due to Tandja's governance.

At the same time the army is another member of the elite coalition, which uses its powers to defend its own (economic) interests. The fact that the army has been part of 40 governments out of 49 between the coups of 1974 and 2002 demonstrates the weight of the institution and suggests that the army is more than a neutral arbiter between citizens and political leaders.

The recurrent interventions of the army in Niger's political life suggest a need to depoliticize the armed forces and to put it firmly under civilian control. On the other hand, in a context where political elites lack legitimacy and are often incapable of managing socioeconomic and political crises, the army may continue to play a positive developmental role.<sup>62</sup>

111. The limited renewal of the political class is a driver of fragility. The current main political actors already ran the country in 1991 and the youth do not feel represented. The two last elections before 2016 demonstrate this, with the lowest voter turnout since 1992. Political apathy fuels alternative forms of mobilization, especially a religious one that attracts the young population who are disappointed by formal institutions. The political neutrality of the Nigerien religious leaders may be explained by a disenchantment with politics in general and the fact that no political actor matches their expectations in terms of morality. Loss of legitimacy tends to restore the image of the former, controlling military regime of Seyni Kountche. Both Islamic and authoritarian ways of governance have in common a perception of being the guarantor of justice, discipline, and order.

112. The fragility of the ruling coalition and its reliance on privileges to sustain the coalition reduce the quality of public services and the scope for (policy) reform. The logic underlying the political settlement reduces the scope and success of developmentally oriented

<sup>&</sup>lt;sup>60</sup> Chauzal, Grégory. 2011. *Les règles de l'exception : la régulation (du) politique au Mali et au Niger*. Institut d'études politiques de Bordeaux.

<sup>61</sup> Ibid.

<sup>&</sup>lt;sup>62</sup> Bryden, Alan, and Boubacar N'Diaye. 2011. *Gouvernance du secteur de la sécurité en Afrique de l'Ouest francophone : bilan et perspectives*. Centre pour le contrôle démocratique des forces armées DCAF.

policy measures. Discretionary nominations within the administration, for instance, are based on familial or political connections, which tends to weaken the quality of basic services.<sup>63</sup> The award of public contracts is not based on business criteria, thus inflating cost and reducing the incentive to develop capacities and skills in the private sector.<sup>64</sup> Local authorities are co-opted because of their crucial role during electoral campaigns, thus making them upwardly accountable as opposed to the citizens they serve. Informal trade is not addressed because the traders behind such trade support the ruling party. This allows illicit trafficking to flourish (see Box 1.1) and reduces state revenues.

#### Box 5.2: Religious conservatism and development outcomes

Several very conservative religious organizations have become active in Niger. The two main ones are Jamaat' Tabligh and Izala. The Jamaat' Tabligh is a Pakistani Islamic movement created at the beginning of the 20th century which has spread over the Sahel, including Niger. Izala (Jama'atu Izâlatu-1-bid'awaIqâmatu-s-Sunna) is originally a Nigerian Islamic association formed in 1978 in Jos from a Wahhabi inspiration. It quickly spread, becoming the main Salafist movement. Both organizations have in common the condemnation of any form of innovation and a strict reference to the Sunna. Other local Islamic associations or movements also exist in the country, especially along the Nigerian border, like the Goungouniyya or the 'Muslim Brotherhood'.<sup>65</sup>

Religious conservatism is gaining ground and the Islamization of society and the political sphere is presented as an alternative to a broken non-confessional state. The movement feeds on popular discontent with the absence of economic opportunities or the limited legitimacy of the political class.

Increasing conservatism is not directly present in the developmental and political debate as there are no religious political entrepreneurs. Yet, it is winning influence over the Nigerien political class, compelling politicians to consult religious leaders (especially during political campaigns). On various public issues, like the organization of the fashion festival African Fashion International Festival (*Festival international de la mode africaine*, FIMA) or the adoption of the African Charter on Human Rights, public authorities were forced to give in to Izala's pressure.

The increasing presence of intolerant views may weaken the ability to deliver basic services. Consider the case of the education sector. While the development of (local language) schools could provide an opportunity to spread education in the most remote areas (as is the case with the Franco-Arab schools which offer a government curriculum),<sup>66</sup> many Koranic schools are not controlled by the administration. Their curriculum is far from being the official Nigerien education program and almost entirely a zealous one. This is worrisome, because an education focused on religion leaves little room to learn secular skills adapted to the labor market. Religious education may also be used to legitimize traditional social and gender habits even though the Islam can be interpreted in a conservative manner but also in a way that supports notions like equality between both sexes or universal human rights.

<sup>&</sup>lt;sup>63</sup> See Olivier de Sardan 2014. La Routine des comportements non-observants au sein des services publiques nigeriens : connaitre la culture bureaucratique pour la reformer de l'intérieur. LASDEL.

<sup>&</sup>lt;sup>64</sup> The cost of such dealings can be very high. The exploitation of the Soraz oil refinery in Zinder for instance was put at risk due to dubious contracts to sell the refined oil at very low prices to businessmen close to the president. In turn, the Nigerien Party for Democracy and Socialism (*Parti Nigerien pour la Democratie et le Socialisme*, PNDS), the Presidential Party, was sponsored by these businessmen. Eventually, the refinery's debts had to be settled by the authorities through a loan of FCFA 437 billion from China Exim Bank.

<sup>&</sup>lt;sup>65</sup> Moulaye Hassane. 2011. "Islam in Niger." In Les Afriques dans le Monde, Dimensions transnationales de l'Islam africain et mutations contemporaines du Sahel, Etude 8/328, Ministère de la Défense, 2011.

<sup>&</sup>lt;sup>66</sup> For more on the Franco-Arab schools, see: Villalón, Leonardo A., Abdourahmane Idrissa, and Mamadou Bodian. 2012. *Religion, demande sociale, et réformes éducatives au Niger*. Research Report No. 6. Africa Power and Politics.

## 5.3 Consequences of the Political Settlement

113. **Catering to elite interest leads to a poor regulatory and institutional environment.** A burdensome regulatory environment in combination with an underdeveloped financial sector generates a preference for informality among non-elite members as formalization offers few benefits while being informal allows firms to circumvent the regulatory burden (see Table 5.1). To elite members, on the other hand, a burdensome regulatory environment offers protection against competition while its bad consequences can largely be avoided through bribery or the use of connections.

Taxes and duties paid on publicly procured imported goods							
Good imported	Taxable import value	Customs duty	Import statistics fee	Value added tax	Other taxes	ARMP (1%) and contract registratio n fee (5%)	Total fees and taxes
Servers	132,291,628	6,614,581	1,322,916	27,146,242	24,543,707	7,937,498	67,564,944
		5%	1%	21%	19%	6%	51%
Floppy discs	34,402,471	6,880,494	344,025	8,039,858	7,025,758	2,064,148	24,354,283
		20%	1%	23%	20%	6%	71%
CISCO Switch	108,290,918	21,658,184	1,082,909	25,307,588	22,115,438	6,497,455	76,661,574
		20%	1%	23%	20%	6%	71%
Inverter	6,897,114	344,856	68,971	1,415,288	1,279,602	413,827	3,522,544
		5%	1%	21%	19%	6%	51%

Table 5.1: High tax rates create incentives for tax evasion and informality

Source: World Bank 2016.

114. Limited attention to (the quality of) public service provision reflects political calculations. Resource allocations are inefficient (high levels of leakage), favor large investment projects, and are uneven distributed, with most public resources being spent in Niamey. An explanation for this pattern is offered by the selectorate theory which suggests that if it is the primary goal of a leader to remain in power, s/he must maintain a 'winning coalition'. When the winning coalition is small, as in autocracies, the leader will tend to use private goods to maintain the coalition. When the winning coalition is large, as in democracies, the leader will tend to use public goods to satisfy the coalition.<sup>67</sup> In the case of Niger, a political settlement in which traditional, religious, and ethnic leaders have the power to tell the population whom to vote for (Figure 5.3) offers one explanation why the incumbent prefers to spend on private goods as opposed to public goods (or on a good preferred by donors such as education for all). To the degree that public resources are spent, they tend to favor large-scale, highly visible projects such as the regional railroad, the Kandadji dam, and the power project at Salkadamna that reflect positively on the leaders rather than on service delivery to the benefit of ordinary citizens. While these initiatives are all needed, it is telling that other initiatives to reduce transaction costs, such as increased competition in telecommunication are not embraced.

<sup>&</sup>lt;sup>67</sup> Smith, Alastair, Randolph M. Siverson, and James D. Morrow. 2003. *The Logic of Political Survival*. Cambridge, MA: MIT Press. Paperback edition, 2005. (Award for Best Book on Conflict, 2002–2003, Conflict Processes Section, American Political Science Association.)



#### Figure 5.3: Empowerment and service delivery

*Source*: United Nations Development Programme (UNDP) 2015; Afrobarometer 2015; DHS 2012; and PASEC 2015.

115. A patronage-based promotion/demotion system contributes to low civil servant morale and bureaucratic ineffectiveness. Favoritism and political patronage in appointments and promotions/demotions are widespread. The most desired positions are subject to an informal auction, and the political control of the administration by the ruling party is such that some ministers cannot select their own advisers and directors. The absence of a policy of promotions based on performance and a high rate of staff rotations undermines the emergence of a stable technocracy within the administration. Low wages—at least relative to the top-ups that can be gained by participating in donor-sponsored activities—further reduce incentives for service delivery in favor of participation in workshops, supervision missions, and so on. Moreover, in the wake of structural adjustment, as few new civil servants have been hired, a gap has been created where an experienced middle cadre is largely absent, creating a bureaucracy that has an experienced top layer with very little 'depth'.



Figure 5.4: Challenges with service delivery in health facilities

Source: World Bank. 2016. Service Delivery Indicator Survey.

116. **Service delivery by the state thus has a number of common characteristics.** First, the quality of the services is widely condemned by clients, as is the behaviour of state actors, who are typically criticized for their attitude, lack of competence, or seen as corrupt. Next, the management of human resources is haphazard at both local and national levels. There is no guiding principle and countless problems arise which are even criticised by the workers themselves, including absenteeism, patronage and clientelism, frequent interference, an absence of sanctions, chronic staff turnover, a lack of transparency, excessive centralization, a refusal to delegate, the failure of bonuses, inefficiency, the bending of rules, and so on. Despite odd instances of things working as they should, there appear to be no permanent solutions to these problems. Third, development organizations are courted by state actors, who see in them bottomless resources. To access donor funds, a multitude of strategies are explored: development brokering, financial handouts, brain drain, doublespeak, quests for daily expense allowances through the creation of ever more training courses and workshops, opportunities for local reform, and so on. <sup>68</sup>

## Box 5.2: Governance and the quality of statistics

The SCD draws heavily on data to arrive at its conclusions. Much of these data have been provided by Niger's National Institute of Statistics (*Institut National de la Statistique*, INS), which is semiautonomous and placed under the 'tutelle' of the Ministry of Finance. The director general is appointed by the minister of Finance. The institute is affected by many of the governance problems reflected in this chapter: limited capacity of staff, a misalignment of incentives, little attention to quality, and a distortionary influence of funding by donors.

According to the Statistical Capacity Building Indicator, statistical capacity in Niger exceeds the average capacity in the subregion (71.1 versus 59.9). Also, with respect to access to data Niger performs relatively well.<sup>69</sup> This does not mean that data quality is acceptable. Data are archived, but 44 out of 97 data sets in the archive cannot be accessed. Certain reports can be downloaded but rarely are they up to date. For instance, in November 2016 the most recent national accounts that could be downloaded were provisional for 2014 and final for 2012. Certain methodologies are outdated such as the one for the national accounts which still uses the SNA 1993. Up-to-date anonymized micro-data are not made public without prior authorization. The most recent survey for which micro-

<sup>&</sup>lt;sup>68</sup> Jean-Pierre Olivier de Sardan. "The Delivery State in Africa. Interface Bureaucrats, Professional Cultures and the Bureaucratic Mode of Governance."

<sup>&</sup>lt;sup>69</sup> Hoogeveen, and Nguyen. 2016. "Statistics Reform in Africa. Aligning Incentives with Results." Mimeo.

data could be downloaded dates from 2010; the most recent data that could be downloaded *with* prior authorization dates from 2015. Some administrative data are accessible through DEVINFO but what is offered is outdated and of low quality, putting the usability of the information in question. For instance, information on the production of paddy crops accessed in November 2016 dates from 2010 and shows that production was 1,040,000 tons in 2009 and 29.961 tons in 2010.

Survey data are possibly the most reliable data that are provided. Many surveys have been done: DHS and MICS surveys are implemented every three or four years. Niger implements a household vulnerability survey almost every year and has carried out living conditions surveys almost every three years. These latter surveys suffer from two fundamental quality issues. First, they are not comparable over time as rarely are the same methodologies and design used. As a consequence, official poverty numbers are not comparable, making it hard to draw conclusions about poverty trends (for the SCD, poverty estimates were redone to ensure comparability). Second, most welfare surveys are not comprehensive enough to allow performance evaluation of government programs. For instance it has proved very difficult with the data available to explain in detail the reasons behind the observed reduction in poverty. Recently with the arrival of the LSMS-ISA and harmonized WAEMU welfare surveys, these aspects are being addressed.

Inadequate core funding hinders the efficiency of statistical operations and creates a dependence on ad hoc donor funding. Most of the institutional budget that INS receives is allocated to salaries and wages, leaving little discretionary resources for field operations or methodological renewal. High per diems create perverse incentives to collect field data as opposed to using administrative data. They also lead to inflated sample sizes and consequently unnecessarily high cost for data. Staff prefer to avoid data analysis and report writing unless this is done off-site and eligible for per diems. Discretionary power of managers to allocate staff to per diem-generating activities creates a culture of unquestioned loyalty with limited incentives to question data quality, procedures, or the efficiency of operations.

Weak technical capacity, limited funding, and semi-autonomy limit the independence of the INS and the confidence one can have in the data produced.

# 5.4 The Challenge of Reform

117. The low capacity of the administration, the difficulties with frontline service delivery, and a competitive political settlement limit the scope for rapid improvements in economic governance. By design, that is, to appease multiple power brokers, the administration is highly fragmented as evidenced by the large number of line ministries (there are 42 ministers and 4 ministries that deal with education), the large number of cross-sectoral committees, and high number of advisers (more than 150 special advisers at the Prime Minister's Office alone). Institutional fragmentation and overlapping responsibilities lead to conflicting decisions, lack of accountability, policy indiscipline, and poor cohesiveness which hinders steadfast, consistent, and effective actions. It thus constitutes a major obstacle to integrated actions, especially in the area of structural reforms and service delivery.

118. The challenge of reforming PFM is well be illustrated in a study below prepared for the High Commission for the Modernization of the State.<sup>70</sup> The study presents the experience of researchers of the Laboratory of Studies and Research on Social Dynamics and Local Development (*Laboratoire d'études et recherches sur les dynamiques Sociales et le Développement Local*, LASDEL) regarding the introduction of a training program at the Treasury. It points towards the need to increase the numbers of staff and their quality. The study reflects the lack of a professional culture (people arriving late; meetings without agendas) and how

<sup>&</sup>lt;sup>70</sup> HCME (High Commission for the Modernization of the State). 2015. *Le fonctionnement de la Direction générale du trésor et de la comptabilité publique*.

opportunities for per diems shape the discussion (who should benefit). The study points towards other aspects that hinder an optimal functioning of the Treasury, including a generational divide, lack of money for operating expenses, and corruption. Researchers found that relations between young and old staff were strained, for instance. To the older staff, the young lack skills and knowhow. Younger staff, by contrast, deplore the selfishness and mediocrity of the old and consider themselves as reformists. They also noted the poor physical working conditions, the scarcity of basic office supplies, and a professional culture of influence peddling and corrupt profiteering. The latter is brought about, in the case of the Treasury, by the state coffers being almost permanently empty and the Treasury having to make choices regarding which suppliers get paid, a decision that is influenced by the presentation of gifts or kickbacks.

119. The challenges highlighted in this study are in no way specific to the Treasury; they exist systematically across the public service. It illustrates the scope of the problem and points toward the need for a major effort and significant political commitment to change the existing situation.

120. As reforms stall and Niger's governance indicators remain poor and levels of corruption elevated, the country fits the description of a limited access order.<sup>71</sup> Limited access orders can be described as political settlements in which an (relatively small) elite group of politicians (including traditional leaders), businessmen, and those in charge of the means of violence (police, military) provide stability to a country in return for access to rents. Even though the outcome is a situation with high levels of corruption, occasional violence and upheaval, and limited development, this outcome is generally more acceptable (even though unjust) to the population than a state of generalized violence, which would be the alternative. A limited access order is characterized by personalized (as opposed to anonymous) relations. People are not equal before the law and institutions depend on personalities and are not long-lived: connection matters more for outcomes than merit.

121. The internal logic of a limited access order requires that policies and reforms aimed at reducing poverty are such that their likelihood of success is much greater if they also benefit the elite. This has practical consequences for the selection of projects: an irrigation project benefitting elite members but creating job opportunities for the poor and reducing food prices may be more likely to succeed, and ultimately have a greater impact on poverty, than an approach that bypasses the elite, for instance, by targeting the poorest directly—unless the elite can use the support to buy loyalty. Such approaches may turn out to be unsustainable, for instance, because the most vulnerable are pushed out of their land. This topic is discussed again in the next section when discussing the identification of priority actions.

122. **Implications of this governance assessment are far-reaching.** It should not be concluded from all the challenges listed above that state mechanisms are governed wholly by rationales based on privilege, clientelism, or corruption. Rationales based on competence or merit have not disappeared from the administration, but it does suggest the presence of structural institutional obstacles to the adoption of pro-poor policies. Improvements are feasible but are likely to come incrementally and require a combination of approaches, including a sustained (rather than a big-

<sup>&</sup>lt;sup>71</sup> North, Douglass C., John Joseph Wallis, Steven B. Webb, and Barry R. Weingast. 2007. "Limited Access Orders in the Developing World: A New Approach to the Problems of Development." Policy Research Working Paper 4359, World Bank, Washington, DC.

bang) effort to raise the capacity of bureaucrats. Once trained, they can form islands of effectiveness and address policy and institutional constraints in an opportunistic manner by forming coalitions with reform-minded stakeholders (thus benefitting from the competitive character of the political settlement). Such islands of effectiveness could be established in the central administration and at the decentralized or municipal levels.

123. As governance reforms will take time, more direct support to citizens is an important complementary building block to any governance strategy. More support directly delivered to citizens is likely to be an effective poverty reduction tool than working through a system with weak capacity and high levels of leakage. An approach that targets citizens more directly and pays more attention to financing results, as opposed to inputs, offers promise. It strengthens local initiatives and decision making, increases local incomes and autonomy, enhances access to information, and embraces service delivery by whoever is capable of doing so. Such an approach would enhance ownership, a precondition for sustainability and move the focus of decision makers and development agencies away from a centralized, state-led development model. Moreover, as purchasing power would increasingly be moved away from the center, it would provide incentives to private sector operators and elites to invest in rural areas.

124. Donors will need to reduce the distortionary effects of their presence and pay more attention to governance details. In many ways the environment is stacked against donors who know the environment less well. At times, simply paying more attention to detail would suffice. For instance, the 5 percent registration fee that is paid for every publicly procured contract (Table 5.1) is de facto a tax on spending by donors who purchase their goods through public procurement processes. Yet, instead of paying a 5 percent registration fee, revenue collection would be simplified and made more transparent when the Treasury was funded through budget support rather than through a 5 percent tax on all project spending. At times, donors may have to reconsider some of their policies. Per diems paid by donors are highly distortionary, for instance, and at other times, the mere presence of donors is the problem. The public service has derisory rates of pay and third-class privileges; the aid sector has rates in line with international standards and first-class privileges. The upshot is that the public service is losing out to development agencies. This goes a long way toward explaining the internal 'brain drain' inside Niger, that is, the poaching of the best managers in the public service by development agencies and international organizations. Per diems paid for donor activities are hugely distortionary.

# 6. Identifying and Prioritizing Pathways to Poverty Reduction

# 6.1 The Challenge of Reducing Poverty in Niger

Rapid poverty reduction can be achieved but requires higher levels of growth and 125. more inclusive growth. Moderate consumption inequality suggests that despite high poverty incidence, the average distance to the poverty line is not too far in Niger. As the poverty to growth elasticity is relatively high (Section 2.1), rapid progress on poverty reduction could be achieved through inclusive growth. The potential to reduce poverty through inclusive growth is demonstrated in Figure 6.1, which simulates poverty under three growth scenarios. The first scenario takes the growth rate of the poorest 40 percent of the population achieved over the past decade as point of departure. This growth rate was 0.4 percent, much less than the growth rate attained by the better-off (2.7 percent). The other two scenarios assume higher growth rates of the poorest households, respectively, 1.4 percent and 2.4 percent. The figure shows that under the baseline scenario, poverty headcount declines barely to about 39 percent by 2030. In the other two scenario's poverty declines to respectively 31 or 16 percent by 2030. It demonstrates that to reduce poverty, a significant pro-poor growth effort is needed. To be inclusive a structure of growth should be sought which differs from that of the past (driven by investments in extractives and large scale infrastructure), or at least, a structure that stimulates growth amongst the poor.

# Figure 6.1: Past per capita consumption growth (2005–2014) and simulations of the change in US\$1.9 PPP poverty under different future growth scenarios (2015–2030)



*Source:* Authors' calculations using QUIBB 2005 and LSMS-ISA 2011 and 2014. *Note:* Poverty rates are based on a per capita consumption welfare measure from LSMS-ISA 2014 and the US\$1.90a-day poverty line (2011 PPP). The simulations above follow the methodology of Lakner, Negre, and Prydz (2014). Twinning the Goals: How Can Promoting Shared Prosperity Help to Reduce Global Poverty? *World Bank Policy Research Working Paper No. 7106*.

126. If redistribution complements pro-poor economic growth, eliminating poverty by 2030 becomes feasible. The scenarios presented in Figure 6.1 demonstrate that under the baseline scenario of 0.4 percent growth for the poor, a redistribution of about 8.5 percent of GDP (about the same amount as Niger receives in aid) in perfectly targeted transfers would be required to eradicate poverty in 2030. With pro-poor per capita growth of 1.4 percent this drops to 5 percent

of GDP. If growth accelerates to 2.4 percent for the poorest, a surprisingly small amount in transfers is needed to completely eliminate poverty: approximately 2 percent of GDP (the equivalent of what is given in tax exemptions) or CFAF 33,000 per poor person.

127. Apart from improvements in the business environment and public sector governance, which would immediately increase productivity and opportunities for growth and poverty reduction, the most promising approach to sustainable growth and poverty reduction is through a process of classical structural transformation. This process starts by increasing the productivity of agriculture (food staples in particular) and livestock rearing. Increases in agricultural production help suppress (fluctuations in) food prices, which is good for the poorest. Not only do poor households spend a large fraction of their budget on food, the poorest farmers tend to be net food buyers, often selling crops when prices are low and buying food when prices are high. Once the share of food consumers relative to food producers grows (because of rural-tourban migration), markets become more important, the nonfarm and agribusiness sectors grow, and the food value chain and rural-urban linkages are strengthened. As rural incomes grow and price fluctuations diminish, second-order effects are likely to emerge: the stock of human and physical capital increases as households invest part of their increased incomes in their offspring. This leads to further productivity gains and to out-migration of (now better-) educated people. It also unlocks demographic transition, in part because higher incomes and higher levels of education induce women to marry later, while increased irrigation reduces exposure to weather shocks and increased mechanization reduces reliance on family labor. Improving the productivity of agriculture is also an excellent way to increase the nonagricultural income earning opportunities due to its upstream and downstream production linkages. Agricultural development thus generates a virtuous cycle in which the expansion of agriculture fuels nonfarm sector growth, and vice-versa.

128. The relation between increases in productivity, structural transformation, and poverty reduction is reflected in the analytical framework presented in Figure 6.2. The framework is based on the premise that reducing poverty requires income growth among the poor to alleviate the budget constraint of poor households. One way in which 'real' income increases is when the price of food staples declines, for instance following a good harvest. The real income constraint can also be alleviated by increasing the productivity of self-employed households. Most poor households in Niger fit this category, as they are engaged in own-account farming or in (in)formal off-farm businesses.<sup>72</sup> Other ways to ease the income constraint is through wage labor or by redistributing incomes (transfers). The scope for transfers to contribute to poverty reduction is considerable, as demonstrated above.

129. Structural transformation can be summarized as the process by which people shift from low productivity activities to higher productivity activities. It is captured in the framework of Figure 6.2 through arrows indicating intra-sectoral shifts to higher productivity activities (for example, by adopting improved seeds or investing in irrigation) and inter-sectoral shifts such as from an informal self-employed activity to a paid and formal one. In many instances,

<sup>&</sup>lt;sup>72</sup> Presently price elasticities are such that increases in production lead to lower prices, but higher revenue for rural households (see Box 2.2). When production increases a lot a consistently – for instance because of irrigation at scale, it is critical that new markets are served. Indeed, the CGE analysis has found that the scenario most supportive of poverty reduction is a combination of production increases and trade liberalization.

inter-sectoral structural transformation is associated with migration as people move from rural to urban areas.

130. Figure 6.2 also presents factors critical to assuring a decent rate of return to investments (productivity). Increasing productivity has immediate consequences for poverty reduction as incomes grow because of increased efficiency and for future poverty reduction as the process of structural transformation is facilitated by a more conducive business and institutional environment. Factors that are critical for productivity are risk, population, and governance. Risk reflects not only largely weather-related risks (rainfall, prices) but also risks to the capacity to work such as health shocks (or insecurity). Population reflects the challenges posed by rapid population increases (such as the depletion of soil fertility) and the presence of gender relations that prohibit women from fully participating in the economy. Governance captures the institutional environment which determines whether people can appropriate the fruits of their labor and coordinate their actions effectively. It includes the security, political stability and PFM, issues discussed in Chapter 5 but also macro-economic governance and the business environment covered in Chapter 4.







*Note:* Arrows reflect the main processes of structural transformation, whether within a productive sector or between them.

131. Niger's structural transformation challenge can be illustrated by comparing the characteristics of jobs of the self-employed in agriculture (81 percent of all jobs) with those in paid jobs in the formal sector. Jobs in agriculture tend to be 'bad' jobs: returns are low, rarely are they permanent, underemployment is high as is the fraction of people with a secondary job (Table 6.1). The reverse holds for the wage employed. Though they are few in number, their jobs are of much better quality, being mostly permanent, with limited underemployment and often being formal. People engaged in wage employment are also much more likely to receive health benefits. Therefore, to reduce poverty it would be desirable if many more people became engaged in wage employment. At the same time, it is unlikely that a sector that presently employs some 4 percent of the population will be able to absorb the 81 percent that are currently primarily engaged in agriculture.

	Agriculture	Nonagricuture self-employed	Wage employed
Total employed (number)	4,885,242	892,857	248,740
(Percentage)	81%	15%	4%
Permanent	13.2%	52.3%	76.6%
For a specific period	33.8%	26.5%	17.7%
Seasonal	53.0%	21.1%	5.7%
Median monthly earnings (*)	5,968	18,000	62,000
Formal	0.4%	2.2%	48.3%
Informal	99.6%	97.9%	51.7%
Underemployed	59.6%	45.8%	26.2%
Has secondary job	28.6%	15.6%	10.8%
Receives health benefits	0.3%	0.4%	31.6%

Table 6.1: Illustrating the structural transformation challenge and job characteristics

Source: World Bank. 2016. Jobs Assessment in Niger.

Note: \* Excludes those (family workers mostly) earning no income. Incomes expressed in CFAF.

132. The likelihood that the formal sector will absorb any surplus agricultural labor in the short run is reduced by the small size of the domestic economy and the lack of 'savoir faire' embedded in the economy. Apart from the overarching need to improve the business environment, prospects for the development of a labor-intensive manufacturing sector are hindered by the small size of the domestic market. Export opportunities to Nigeria—the biggest market in the region—exist but the demand is primarily for horticultural and livestock products. Developing exports of manufactured products is not straightforward as the current industrial base is tiny and lacks the necessary networks of suppliers and buyers and the skills needed to develop an export sector. This is confirmed by Hausmann and Klinger (2006) and Hidalgo et al. (2007)<sup>73</sup> and an analysis done by the International Finance Corporation (IFC) for this SCD. These authors use the product space concept to show that Niger's exports are relatively unconnected to other products in the global product space. It makes successful export promotion of non-primary goods particularly difficult as it suggests that the knowledge embedded in the economy (exports of unprocessed goods

<sup>&</sup>lt;sup>73</sup> See Hausmann and Klinger (2006). Structural Transformation and Patterns of Comparative Advantage in the Product Space downloadable from http://ksgnotes1.harvard.edu/Research/wpaper.nsf/rwp/RWP06-041 and Hidalgo et al. (2007) The Product Space Conditions the Development of Nations. *Science* 317, 482 (2007); DOI: 10.1126/science.1144581.

and minerals) is far from what is needed for successful development of other tradeable good sectors.

133. **Improving the productivity in agriculture therefore remains a first priority for poverty reduction.** The CGE model presented in Chapter 4 already demonstrated that improving the productivity of capital in the agricultural sector would boost the incomes of the poorest 50 percent of the population. When such investments are combined with trade facilitation, the positive impact is particularly high. It supports the notion that improvements in on farm productivity should be combined with improved market access. Other evidence on the importance of agricultural growth for poverty reduction can be gleaned from past reductions in poverty. Niger reduced poverty by 9 percentage points since 2001 and by more than 4 percentage points between 2011 and 2014. This reduction is largely due to intra-sectoral effects, particularly positive growth in agricultural and livestock production in rural areas where most of the poor live. In the next section, we explore the scope for poverty reduction by raising productivity in agriculture.

# 6.2 Reducing Poverty by Increasing Productivity of Agriculture

134. **Biophysical conditions and weather variability pose major constraints to agricultural productivity.** Agricultural productivity is limited by a short rainy season with high intra- and interannual variability in rainfall, which often leads to crop failure. Moreover, land quality is low because of the limited soil organic matter content.<sup>74</sup> Because of this, the soil tends to crust, which hampers water infiltration and causes extensive water runoff, leading to flash floods in the event of heavy rains, and further losses in soil fertility.<sup>75</sup> Additional risks to agricultural productivity include locusts, crop or livestock disease outbreaks, and sandstorms.<sup>76</sup>

135. **Climate change is likely to worsen the biophysical conitions.** Climate models predict a further increase in weather variability and more occurrences of extreme weather. They project an increase of 1.6°C in mean annual temperatures by 2049, an increase in the intensity and frequency of droughts, and more intense rainfalls. A rise in the incidence of extremely hot days will cause additional heat stress to crops and livestock. The 2009 drought (which was compounded by a locust infestation) led to a 4 percent decline in per capita GDP and a decline of more than 13 percent in agricultural production.<sup>77</sup> The impact on the livestock and herding subsector was stark as 2.7 million head of livestock perished. The herding sector suffered losses of approximately US\$805 million (almost 30 percent of GDP).<sup>78</sup>

Figure 6.3: Yield gap and input use

The yield gap for the most commonly grown crops is	Low yields can be attributed to the limited use of
enormous.	improved seeds

<sup>&</sup>lt;sup>74</sup> Breman, H., J. J. R. Groot, and H. van Keulen. 2001. "Resource Limitations in Sahelian Agriculture." *Global Environmental Change* 11: 59–68.

<sup>&</sup>lt;sup>75</sup> World Vision Niger. 2009. Agricultural Development Recommendations.

<sup>&</sup>lt;sup>76</sup> Government of Niger. 2010. Strategic Program for Climate Resilience Niger (SPCR).

<sup>&</sup>lt;sup>77</sup> World Bank. 2007. *Niger - Accelerating Growth and Achieving the Millennium Development Goals: Diagnosis and the Policy Agenda*. Report No. 41408-NE.

<sup>&</sup>lt;sup>78</sup> Republic of Niger. 2011. Evaluation rapide de l'impact de la crise pastorale 2009-2010 sur la décapitalisation du cheptel et les moyens de subsistance des populations pastorales et agro-pastorales du Niger. Preliminary Report.



(\*) *Note*: There are many more explanations for the presence of a yield gap, including farming practices, market access, availability of storage or the policy environment.

*Source*: Yield gap, Gyga Niger, 2016; other information: Sheahan, Megan, and Chris Barret. 2015. "Understanding the Agricultural Input Landscape in Sub-Saharan Africa." Policy Research Working Paper 7014, World Bank, Washington, DC.

136. **To increase productivity in agriculture, the yield gap needs to be reduced.**<sup>79</sup> Particularly, yields for traditional cereals need to be improved. For the most popular cereal crops—sorghum, millet, and rice—the difference between actual yields and potential yields is huge. For rain-fed sorghum, yields could increase by almost a factor of 20 and for rain-fed millet, by a factor of 8. The potential increase for irrigated rice is less, but still at least a factor of two.<sup>80</sup> Even if only

<sup>&</sup>lt;sup>79</sup> The yield gap is particularly large for women. Women farmers who produce 19 percent less per hectare than men, with the gender gap rising to 66 percent after controlling for differences in plot size and region. The primary factors that contribute to the gender productivity gap are (a) farm labor, with women facing significant challenges in accessing, using, and supervising male farm labor; (b) the quantity and quality of fertilizer use, with men using more inorganic fertilizer per hectare than women; and (c) land ownership and characteristics, with men owning more land and enjoying higher returns to ownership than women (Backiny-Yetna and McGee 2015). Another element of women's relative lack of empowerment that affects their agricultural productivity is their relatively lower participation in leadership outside the household, as measured by group membership and public speaking (Wouterse 2016).

<sup>&</sup>lt;sup>80</sup> Numbers vary by source: FAOSTAT reports, for instance, yields for millet of 544 kg/ha and 442 kg/ha for sorghum, while the Global Yield Atlas puts the yield potential at 1.2 t/ha for rain-fed millet and of 3.3 t/ha for rain-fed sorghum. Irrespective of the source, the yield gap is very large.

half of the potential yield is attained, it would imply a quadrupling of millet yields per hectare and an almost 10-fold increase in sorghum production!

There exists great potential for irrigation using groundwater. Whereas estimates 137. indicate that some 16,000 ha of land is currently irrigated using groundwater,<sup>81</sup> available information derived from a recent mapping of groundwater in Niger<sup>82</sup> suggests that at the very least 250,000 ha is easily irrigable.<sup>83</sup> The number of wadis (dry rivers) where sand dams (*seuils* d'épandage) can be constructed to stop erosion and recharge groundwater is also very high. A back-of-the-envelope calculation suggests that if this 250,000 ha were irrigated and yields of 6,000 kg of rice would be obtained for two harvests a year, 48 million exclusively rice-eating people could be sustained.<sup>84</sup> The implication is that with adequate technological change a Malthusian crisis—because of high population growth and dwindling access to fertile land—can be avoided, at least in the short run. Affordable, small-scale solutions for irrigation with groundwater exist: plots of 2,500 m<sup>2</sup> can be irrigated using a portable solar pump presently marketed in Kenya for approximately US\$500. If such solutions were to be introduced at scale, there would be general equilibrium effects. Prices could drop for instance which despite increased production could have a negative impact on farmer income. Such a drop in income could be avoided if an irrigation policy is accompanied by a market access (export) strategy and/or the development of new value chains. In that scenario, the (now lower) decine in prices and increased demand for wage labor would be very beneficial for poor people who as net food buyers would benefit from lower prices and as providers of casual labor would benefit from increased demand for their services.

138. Other ways need to be found to increase the productivity of rain-fed cereal crops. Barring rice, most cereals are not grown under irrigated conditions. The scope to increase the yields of traditional cereals of millet, sorghum and cowpeas is enormous. Among the many reasons for low yields, the immediate causes are the limited reliance on improved (let alone hybrid) seed; limited use of inputs (fertilizer, pesticide); and inadequate use of technology (see Box 6.1). Some of the reasons for the limited uptake are attributable to agro-ecological variables, but Sheahan and Barret (2014)<sup>85</sup> point out that most of the variation in the use of inorganic fertilizer and agrochemicals are attributable to national-scale variables, that is, market regulating policies.

<sup>&</sup>lt;sup>81</sup> Abric, S., Sonou, M., Augeard, B., Onimus, F., Durlin, D., Soumaila, A., & Gadelle, F. (2011). *Lessons learned in the development of smallholder private irrigation for high-value crops in West Africa*. Washington, DC: World Bank.

<sup>&</sup>lt;sup>82</sup> That is, the water table is at less than 10 m below the surface, a depth that allows the use of surface pumps, the porosity of aquifers is high enough, the land above the aquifer is suitable to agriculture (slopes and soil quality), a manually constructed borehole is feasible, and people live in the area.

<sup>&</sup>lt;sup>83</sup> The EPTIN assessment of groundwater carried out by the Ministry of Agriculture in 2015 calculates over 5 million ha with water table higher than 15 m, based on slopes, land quality, and terrain topography, which are some of the criteria.

<sup>&</sup>lt;sup>84</sup> Based on 374 calories per 100 gram of dry rice and total caloric needs of 2,100 calories per day per adult. Solar pump specifications and cost (Practica: http://practica.org/projects/introduction-solar-irrigation-pumps/).

<sup>&</sup>lt;sup>85</sup> Sheahan, Megan, and Chris Barret. 2015. "Understanding the Agricultural Input Landscape in Sub-Saharan Africa." Policy Research Working Paper 7014, World Bank, Washington, DC.

#### Box 6.1: Climate-smart agriculture practices can foster productivity in agriculture

The research community has identified ample climate-smart agriculture practices that can foster productivity and deliver sizeable resilience benefits at the same time. The challenge is to ensure these practices are adopted.

Interventions such as the introduction of more drought and heat-tolerant crop varieties, soil and water conservation, rainwater harvesting, or conservation agriculture can reduce the vulnerability of smallholders practicing rain-fed agriculture and enhance the productivity of key staples such as sorghum, millet, and maize.

**Soil and water conservation practices** such as the construction of small dams, stone contour ridges, or terraces reduce water runoff and allow for better water infiltration, thereby increasing soil water content and maintaining humidity during dry spells through an improved soil structure.

**Rainwater harvesting practices** such as planting pits or earthen trenches along slopes are low-cost measures that capture and collect rainfall before it runs off farm fields. In Burkina Faso, farmers have doubled grain yields using multiple water harvesting techniques.

**Conservation agriculture** is a combination of reduced tillage, the retention of crop residues or maintenance of cover crops, and crop rotation or diversification. In Zambia, maize yields in conservation agriculture systems with crop rotation were more than 50 percent higher than yields under conventionally tilled maize. Notably, for different household types, different adaptation strategies may be climate smart. The selection of the appropriate land use practice has been shown to depend on land size and market orientation of the farming household.

Climate-smart fertilization strategies are another effective way to restore or maintain soil fertility in Niger and hence to foster agricultural productivity. The application of mineral fertilizer increases yields, allowing farmers to build up food and/or financial reserves. Since rural households in Niger often lack access and/or the financial resources to afford fertilizer, climate-smart strategies such as integrated soil fertility management, micro-dosing, or precision manuring may be low-cost, effective measures to increase soil fertility.

**Integrated soil fertility management** (ISFM) is the combined use of judicious amounts of mineral fertilizers and soil amendments such as crop residues, manure, leaf litter, or compost. The adoption of ISFM across more than 200,000 ha in West Africa increased yields by 33–58 percent over four years, with revenue from maize increasing by 179 percent. When ISFM practices were combined with the targeted application of small quantities of fertilizer (micro-dosing) and improved seed varieties, farmers in Mali, Burkina Faso, and Niger experienced increases in sorghum and millet yields of 44–120 percent, along with an increase in family incomes of 50–130 percent.<sup>86</sup>

**Precision manuring** relates to the rotation of the night-time tethering sites of livestock on cropped areas. In so doing, agro-pastoralists can concentrate manure.

Adding trees to crop or agro-pastoral systems, through plantation or farmer-managed regeneration of naturally occurring tree species, increases yields and household income. Another land use strategy that has proven to increase soil fertility substantially is the integration of leguminous 'fertilizer trees' into farmland. These trees fix nitrogen in the soil, provide shade, and improve water infiltration.<sup>87</sup> Consequently, 'islands of fertility' are created under their canopies, that is, areas of greater soil organic matter, nitrogen, and phosphorus concentrations compared to open areas.

*Source:* Adapted from: Moussa, et al. 2016. "Economics of Land Degradation and Improvement in Niger." In *Economics of Land Degradation - A Global Assessment for Sustainable Development*, edited by Ephraim Nkonya and Joachim von Braun.

139. **Critical to the introduction of improved farming technologies is extension.** The gap between what is achieved in controlled environments or in small pilots or on the farms of the majority of farmers is enormous. Whereas most of the needed technologies and knowledge exist, farmers do not adopt these, in large part because the missing link—extension services—barely

<sup>&</sup>lt;sup>86</sup> Robert Winterbottom, Chris Reij, Debbus Garrity, Jerry Glover, Debbie Hellums, Mike McGahuey and Sara Scherr 2013. "Improving Land and Water Management." World Resources Institute.

<sup>&</sup>lt;sup>87</sup> WRI (World Resource Institute). 2015. Scaling up Regreening: Six Steps to Success.

exists. Existing extension services are of low quality, top down, and with limited involvement of farmers as well as the private sector.<sup>88</sup>

140. Given the importance of livestock for pastoralists and agro-pastoralists, increasing the productivity of animal production is critical. Livestock are a cornerstone of the livelihood systems in Niger which increase household resilience and help make marginalized areas economically productive.<sup>89</sup> But these systems are also dependent on scarce water resources and vegetation and suffer not only from increasingly extreme rainfall also severe droughts which are likely to become more frequent and intense with climate change. The timing and magnitude of adverse weather spells determine the mobility strategy, the size and composition of the surviving herd<sup>90</sup>, and, thus, their ability to recover. Progressive land degradation and water scarcity exert pressure on grazing areas and existing water points, causing livestock death and hence increasing the vulnerability of livestock keepers.<sup>91</sup> Conflicts with sedentary farmers can occur when herds are brought to the southern higher rainfall areas in which agriculture is predominant<sup>92</sup> or as a consequence of an ongoing northward expansion of farmland into pastoralist areas due to a saturation of areas suitable for farming.<sup>93</sup> Avoiding further reduction and fragmentation of grazing lands and other communal resources such as livestock corridors are not only crucial for the resilience of pastoralist livelihoods but also for the maintenance of an already strained natural resource base.

141. The transhumant pastoral system is not going to transform into a modern high productivity sedentary one but the traditional livestock system can be made more productive and resilient through investments in improved infrastructure and climate-smart land management. Strategic and productivity-enhancing interventions in the livestock sector could foster the resilience of livestock keepers and their cattle and boost incomes at the same time. Interventions could entail the provision of animal health services and in particular veterinary treatments and vaccination against priority livestock diseases, secured access to grazing areas and water points,<sup>94</sup> and secured access to livestock corridors to allow for the transborder movement of livestock.<sup>95</sup> Seeding rangelands or restoring degraded land improves ground cover and feed availability, improves soil water retention, and buffers the impact of flash floods from heavy

<sup>&</sup>lt;sup>88</sup> République du Niger, and FAO (Food and Agriculture Organization). 2009. Analyse diagnostique du système

d'appui conseil. Mise en place d'un dispositif intégré d'appui conseil pour le développement rural au Niger.

<sup>&</sup>lt;sup>89</sup> See World Bank 2016. Confronting Drought in Africa's Drylands Opportunities for Enhancing Resilience. http://hdl.handle.net/10986/23576.

<sup>&</sup>lt;sup>90</sup> Already for instance, the composition of herds is shifting from large ruminants to small ruminants who have a shorter life span and who yield a quicker return as compared to large ruminants.

<sup>&</sup>lt;sup>91</sup> Grigg, N., et al. 2015. Resilience Assessment Desktop Case Studies in Thailand and Niger. Australia: CSIRO.

<sup>&</sup>lt;sup>92</sup> Thébaud, B., and S. Batterbury. 2001. "Sahel Pastoralists: Opportunism, Struggle, Conflict and Negotiation. A Case Study from Eastern Niger." *Global Environmental Change* 11: 69–78.

Nori, M., M. Taylor, and A. Sensi. 2008. "Browsing on Fences. Pastoral Land Rights, Livelihoods and Adaptation to Climate Change." IIED Issue Paper 148, International Institute for Environment and Development, London, United Kingdom.

<sup>&</sup>lt;sup>93</sup> Mortimore, M. J., and W. M. Adams. 2001. "Farmer Adaptation, Change and 'Crisis' in the Sahel." *Global Environmental Change* 11: 49–57.

<sup>&</sup>lt;sup>94</sup> World Bank. 2016. Confronting Drought in Africa's Drylands.

IRIN (Integrated Regional Information Networks). 2012. *Drought Does Not Mean Death of Pastoralism*. <sup>95</sup> For example, BRACED.

rains.<sup>96</sup> In drought periods, interventions could entail the promotion of early livestock destocking as well as the expansion of livestock feed supplementation.<sup>97</sup>

142. Simultaneously the development of value chains for livestock products with investments in sedentary livestock and the production of livestock feed and the support of professional pastoral organizations could be viable options to develop the livestock sector.<sup>98</sup> Policy attention should particularly go to supporting the productivity of small ruminants and birds, the animals most frequently owned by the poorest.

# 6.3 Complementary Pathways to Reducing Poverty

143. In addition to increasing productivity in agriculture as a means to start a process of economic transformation and poverty reduction, this section considers two complementary pathways to poverty reduction. The first is migration and urbanization, a process that accompanies inter-sectoral structural transformation, particularly when rural folks move to town. The second is the promotion of the mining sector which can offer employment opportunities and revenues needed to finance poverty alleviation-related activities.





Source: World Bank 2016, Migration and Remittances data; UN 2016. Population projections.

144. **Migration, whether international or rural to urban, is potentially a major driver of growth and poverty reduction.** Niger is barely urbanized but cities play an important role in the livelihoods of the poor as places where employment opportunities can be found in the off-season. It is estimated for instance that during the dry season and during droughts the population of Niamey increases by 20 percent.<sup>99</sup> Permanently shifting labor from a relatively unproductive agricultural sector with high levels of seasonal underemployment to urban areas where one can be productive year-round is a potential source of growth. Increased urbanization will also create positive

<sup>&</sup>lt;sup>96</sup> UNEP (United Nations Environment Programme). 2013. Livestock, Livelihoods, and Disaster Response.

<sup>&</sup>lt;sup>97</sup> USAID (United States Agency for International Development). 2014. Resilience in Africa's Drylands.

<sup>&</sup>lt;sup>98</sup> Government of Niger. 2010. Strategic Program for Climate Resilience Niger (SPCR).

<sup>&</sup>lt;sup>99</sup> Motcho, K. H. 1991. Cadre de vie et systèmes de santé à Niamey (Niger).

spillover effects for rural growth, by increasing demand for agricultural produce and providing cash and knowledge that can be used for productive investments in rural areas. There is an inherent risk associated with this kind of migration in that an influx of uneducated people creates congestion and great inequality as city growth is not matched by an expansion of infrastructure (housing, water, electricity and other services to business and households), reducing the productive advantage cities tend to have. Yet, as migration is inevitable, it is a call to investing in city planning, to ensure that the business environment improves for formal and informal enterprises (so that they can absorb the new migrants) and for more investment in human capital to ensure that future labor migrants are well equipped for the urban labor market (of Niamey but also, and possibly especially, of Nigeria).

145. **Managed well the extractive industry offers much scope for inclusive GDP growth.** The mining sector already contributes about 10 percent to GDP and extractive industry revenues totaled US\$457 million in 2013. There is huge potential to extend this further by increasing existing production or developing new deposits in uranium, coal, copper, gypsum, iron, limestone, phosphate, nickel, molybdenum, oil, salt, and vanadium. The extractive sector is capital intensive and not structurally pro-poor. However, revenues generated by the sector can be instrumental in building the capital base (physical as well as human) needed for the future income increases and can be used to finance redistribution schemes. Not all extractive investments are capital intensive and already a large number of small-scale miners are active (estimated at between 200,000 and 500,000). To increase its productivity and profitability, this sector needs to be formalized and better organized. Moreover, mining companies are required to invest a substantial share of their profits in the communes in which they operate, and infrastructure created for (and by) the sector can have positive spillover effects to other sectors.

146. **Dependence on the extractives sector comes with risks that need to be carefully managed.** Revenues may go unrecorded or be managed in a non-transparent manner (resource curse). A growing extractives sector may go at the expense of other sectors and create Dutch disease. Care must be given to avoid enclave activities and ensure that forward and backward linkages are developed. Similarly, financial buffers will need to be built to reduce exposure to commodity price volatility.

# **6.4 Binding Constraints**

147. To arrive at a final set of binding constraints, a systematic five-step iterative process was followed. As first step and informed by the analytical framework, critical pathways to poverty reduction and preliminary binding constraints were identified (step 1). This identification was informed by analytical findings –mostly descriptive statistics about the nature of poverty (rural), the overall economy, the state of human capital, the nature of the political settlement, as well as discussions with country team members on the likelihood of a certain factor being a binding constraint. The reflection of this initial thinking was presented at the concept note review.

148. Further consultations within the country team, discussion meetings, informal incountry consultations, and additional analysis were used (step 2) to assess the appropriateness of the preliminary constraints. As a consequence, 'economic empowerment' initial identified as binding constraint was replaced by inadequate human capital, while under the governance constraint particular attention was given to how to reach beneficiaries more directly and effectively. The analysis was enriched with in-depth work on governance (fragility assessment; citizen centered approaches), on pathways to poverty reduction (CGE-analysis; scenario analysis for growth and poverty reduction; assessment of groundwater potential for irrigation; product space assessment) and with a desk review of causes for low agricultural productivity.

149. The next steps in the prioritization process were formal in-country consultations during which feedback was obtained on the revised set of binding constraints (step 3). This was followed by a series of meetings on how to address different binding constraints (low agricultural productivity; inadeaquate human capital; high levels of fertility) and concluded with a country team retreat during which the binding constraints were firmed up and during which a team concensus was reached on the core constraints and the activities critical to alleviating them (step 4). A final consistency check of the identified binding constraints with the long-term objectives of financial, social, and environmental sustainability completed the process (step 5).



## Figure 6.5: Five-step process to identifying binding constraints

## 150. The SCD identifies three areas of binding constraints:

- Low rural productivity
- Inadequate human capital
- Poor governance.

151. Low rural productivity is the first binding constraint. It is the logical outcome from the observation that the majority of poor people live in rural areas and are engaged in agriculture and livestock rearing, that productivity is low and the scope for improvement enormous and that increased incomes from agriculture are a first and critical step on a path towards structural transformation. Addressing low agricultural productivity implies addressing some of the consequences that flow from it, such as food insecurity and implies reducing some of the key risks that households are facing. At the same time, the constraint is sufficiently broad that is implies that

the focus should not only be on agriculture and the lack of inputs (seed, fertizer, water, advice) that are the immediate cause for low productivity, but also on on-farm productivity and access to markets and policy reforms that are needed to make agricultural input and output markets function better.

152. **Inadequate human capital is the second binding constraint.** As was noted in Chapter 3, human capital is the main asset of poor households who rely primarily on own labor to make ends meet. Levels of human capital are, however, unacceptably low. The average adults have 1.4 years of schooling, being malnourished is almost normal (44 percent of children is stunted) and only 15 15 percent of births are attended by a skilled health professional. These low human capital outcomes have immediate implications for productivity, for the ability to adopt new technologies and to contribute to a modernizing economy. They support a situation in which gender differences are large, in which harmful social practices go unchallenged (such as the early marriage of girls) and in which the world's highest fertility rate remains unchanged through a combination of low incomes, low levels of education and poor access to information and health services.

153. **Poor governance is the last binding constraint.** The SCD has argued how the political settlement –responsible for the, albeit fragile, stability which is a precondition for development, comes at a price of a highly constrained business environment, endemic corruption, prestigious, large scale, urban focused projects and inadequate service delivery –more so in rural areas. The scope for cross-cutting governance reforms is limited, but in selected areas they may be feasible and critical (mining; urban planning) or simply necessary (PFM). A core challenge is not only *what* to address but to identify *how* governance can be improved in a sustainable manner. To this end one seeks reforms that align the incentives and interests of the elite with those of citizens. This SCD argues that engaging citizens more directly and empowering them with education and information, through (direct) resource transfers and by strengthening their ability to choose one way to solve this "elite versus citizens" conundrum.

154. **Transferring purchasing power as well as knowledge directly to citizens (most of whom live in rural areas) creates incentives to pay more attention to what happens outside the capital.** By implication it will also create incentives for the (wealthy) elites to invest locally. This suggestion is rooted in Olson's (1965) seminal insight that if the rich have a strong interest in the provision of a public good, inequality could facilitate collective action because it would be in the interest of the wealthy to provide the good, allowing the poor to free ride.<sup>100</sup> Applied to Niger, by giving poor citizens the ability to purchase goods (for example, through fertilizer vouchers that can be used at local shops), elites become motivated to invest in local shops and dealerships instead of in channeling public resources through inefficient public procurement and distribution schemes.

155. A citizen-centered approach could thus be the way to change Niger's development trajectory. It could be operationalized by moving away from a public sector-led provision of services to an approach that empowers citizens with information; education; purchasing power (transfers, vouchers); and choice in service providers. It can be brought about by (a) promoting small-scale interventions (as opposed to large-scale interventions requiring complex governance structures) that target and involve poor households directly. Technological advances in ICT,

<sup>&</sup>lt;sup>100</sup> Olson, M. 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.

biometric identification, and engineering make individualized interventions implemented at scale a realistic option. Hence, small pumps may be preferred over large irrigation schemes, off-grid electricity solutions to an expansion of the power network, and mobile phones over fixed telephony. It also includes (b) improved access to information (as well as literacy); (c) a better alignment of the incentives of service providers with results (such as performance-based financing); and (d) promoting private sector service provision where feasible.

156. The use of e-vouchers to transfer agricultural subsidies presents one illustration of a citizen-centered approach. An e-voucher system starts by creating a database with information on the core characteristics of households: where they reside, family size, sources of income, information about wealth, and their phone number (or that of someone they trust). This database is used to identify recipients who are eligible for certain subsidies. Traditionally, these subsidies have been for fertilizer or seed, but vouchers could also be given for assets, extension services or even education. When recipients receive their unique voucher through a text message, they are also informed where to go to redeem it. The provider, say a fertilizer shop, would receive a matching text message and upon verification provides the good or service. There are multiple advantages to such an approach. Recipients can be selected based on characteristics defined by policy makers, vouchers can be tailored to the needs (and wealth) of different recipients (levels of subsidization can consider the wealth of a recipient for instance), private sector provision is promoted, transaction costs are reduced, and transparency and accountability improved.

157. Another illustration of a citizen-centered approach refers to rural roads. The traditional approach has been that donor-funded projects support the sector ministries in charge of rural/local roads. These ministries select rural roads to be improved and prepare detailed engineering studies for full road rehabilitation. This is followed by the selection of civil works contractors who carry out the works. It typically results in a relatively small number of rural roads being rebuilt, often at excessively high technical standards and at a high cost per kilometer. There is little involvement of local communities, except perhaps during the construction when contractors hire local unskilled labor. Maintenance of these constructed roads is not assured, especially since the Road Maintenance Fund of Niger (*Caisse Autonome de Financement de l'Entretien Routier*, CAFER) focuses on main roads. Typically, newly rehabilitated roads deteriorate into a very bad condition within four or five years, making passage difficult or impossible during the rainy season.

158. The reality is that local populations can often travel on rural roads during the dry season even when they are poorly maintained. The dry ground is hard and permits travel using motorcycles, pickup trucks, and small trucks. Problems occur during the rainy season when farm inputs need to be transported and just after the rainy season when the harvest needs to be taken to market. At that time, 'black spots' develop as a result of the rains, which often make passage impossible. Local communities know very well where these 'black spots' are. A citizen-centered poor approach that can be followed instead can be characterized as follows:

- Road committees are formed within farming communities, with participation of leading farmers who depend on functioning local roads.
- Each road committee composes a road workforce with local workers, especially including landless young people.

- Road committees receive a contract for ensuring a certain minimum service level during critical months of the year, typically the rainy season and just thereafter.
- The service level is defined in a way that everyone understands, such as "the road must be good enough so that a loaded Toyota 2x4 pickup truck can travel at a speed of 40 kmph."
- The local road committee receives basic technical and engineering support through local consultants, who advise them on how to best carry out works and how to identify suitable materials to use.
- The local road committee is paid a fixed sum for every week that the road complies with the service-level criteria (performance contract). Noncompliance results in nonpayment and in pressure by the broader local community (who need the road to function) on their respective road committee (who may not have done their work).

159. Such approaches have been introduced successfully in Chad more than 15 years ago and have become mainstream there but not in Niger.

160. A third illustration of an approach to citizen-centered service delivery is performance-based financing (PBF). PBF has been associated with impressive improvements in service delivery performance. The approach shifts financing from centralized and input-based financing to financing of local service providers based on performance. A typical PBF project provides performance bonuses based on the quantity and quality of services provided. Results are verified and users' feedback is integrated in the performance assessment, which dictate bonus amounts provided. Through contractual arrangements, facilities are granted greater management autonomy in return, allowing them to take local decisions on how to use PBF revenue to improve service delivery and motivate their personnel. Most PBF approaches are implemented in the social sectors, health in particular, but with the right adjustments, the approach can also be used in the education sector or in agriculture (extension services for instance). PBF is guided by 10 principles, which reflect the paradigm shift relative to traditional, centralized, and input-focused approaches that citizen-centered service delivery seeks:<sup>101</sup>

- Separate the functions of regulation, provision, fund disbursement, contract development and verification, and community empowerment.
- Stimulate competition for contracts among facilities and other stakeholders.
- **Promote public-private partnerships** with equal treatment of public, religious, and private providers.
- The **roles of the regulator at** the national, regional and district level are to define output, quality, and equity indicators. The regulator also costs out public budget with equity bonuses for vulnerable regions, facilities, and individuals. The regulator

<sup>&</sup>lt;sup>101</sup> SINA 2016. PBF source book.

intervenes when the facility becomes a danger to public health or when the facility is engaged in criminal activities.

- **Providers are autonomous** to hire and fire, set user fees, and respond to government defined packages and client demand.
- Providers must ensure that **revenues and expenditures are balanced** while providing quality and equitable services with motivated staff at the risk of nonrenewal of contract and bankruptcy.
- **Contract development and verification** (CDV) agencies negotiate contracts, verify results, and coach managers to use business plans and indices instruments; the subsidy payments are done by a different organization.
- Local community groups **enhance patient interests** and health facilities conduct **social marketing**.
- Promote efficiency and cost containment by CDV agencies and government to pay in **cash or through bank transfers** for results instead of providing inputs in kind. Facilities must have the free **choice to purchase their inputs** from independent distributors operating in competition.
- Seek economic multiplier effects to generate employment, economic growth, and tax revenues by deliberately injecting cash into the local economy.

161. A citizen-centered approach will offer its own challenges. In a gross simplification of Niger's traditional authority structures, citizens are primarily considered subjects of local leaders whose legitimacy is rooted in a gift economy and a system of mutual obligations in which subjects' request favors from leaders, which the leaders grant if they are able to do so, expecting obedience in return. The resulting equilibrium creates sharp inequalities in wealth, power, and social status. Attempts to empower citizens directly may prove to be contentious and be resisted by local elites.<sup>102</sup> They may also end up being supported particularly when they operate within the existing systems and benefit elites as well as subjects.<sup>103</sup> Successful direct delivery will require considerale local knowledge. As Box 6.1 points out, this can be quite complex.

<sup>&</sup>lt;sup>102</sup> Mansuri, G., and V. Rao. 2013. *Localizing Development: Does Participation Work?* Washington, DC: World Bank. doi:10.1596/978-0-8213-8256-1.

<sup>&</sup>lt;sup>103</sup> De Sardan and his coauthors describe, for instance, how cash transfers offered to selected villagers are redistributed by chiefs among all villagers stating, "L'argent du Blanc appartient à tout le village. Il faut donc laisser tout le monde profiter de cette gratuité." *Les transferts monétaires au Niger: le grand malentendu*. Revue Tiers-Monde January 2014. doi:10.3917/rtm.218.0107.

#### Box 6.2: A citizen-centered approach requires local knowledge

Service delivery is rarely done exclusively by the state. Take the example of personal safety in Niger. Disputes between farmers and nomadic herders are common in the country's interior and sometimes lead to fatalities. It is the job of the police (*gendarmerie*) to prevent these (by patrolling) or to settle them (through written reports or arrests). To do either of these, a 4x4 vehicle is needed to get around. However, the car is often out of order, and the fuel allowance is woefully inadequate; hence, patrols are few and far between. It is, in fact, the chief's 'knights' who alert the police whenever there is trouble. The car is fixed or the fuel is bought with dues paid by the local population and collected by the village chiefs and a contribution from the mayor. As for the 'livestock routes' (*'couloirs de passage'*) created especially for the herders, which should allow conflicts to be avoided, these are defined and mapped out by NGOs and funded by aid agencies.

This situation is one of co-production of the public good 'safety', which, in addition to the services provided by the police, also brings into play the chief, the municipality, and civil society (NGOs). Understanding how the various combinations of actors, organizations, and means—both state and non-state—interact to deliver public goods, and the incentives these different actors face, will be critical to designing ways to improve public service delivery.

*Source*: Adapted from: Jean-Pierre Olivier de Sardan. "The Delivery State in Africa. Interface Bureaucrats, Professional Cultures and the Bureaucratic Mode of Governance." Mimeo.

162. The *how to* question extends beyond governance and also related to the issue of poverty traps. In Chapter 2, the existence of multiple poverty traps was emphasized and the implication drawn that addressing one trap at a time was unlikely to be very effective. It was pointed out that certain interventions might address more than one trap (as is the case with irrigation) but irrigation in areas affected by conflict, or without improved access to knowledge and information, might still not amount to much. The implication is that preference should be given to integrated approaches that address more than one problem at the same time. This thinking is reflected in the 'low productivity' area of constraint as it identifies multiple restrictions that need to be addressed at the same time, requiring contributions from different sectors: agriculture, water, finance, transport, and social protection are explicitly mentioned. However, integration should also go across areas of constraints as improved human capital (health, nutrition) and better access to knowledge (adult literacy, information) are critical to improved productivity.

## Area of constraints 1: Low rural productivity

163. Low productivity of key food crops and livestock is the first binding constraint to poverty reduction. To overcome this constraint, four key interventions are identified: (a) policy reforms removing systematic biases against the sector, (b) the introduction of improved technology, (c) improved market access and local transformation, and (d) social transfers.

164. **Removing policy constraints is a first prerequisite to increasing agricultural productivity.** Without a supportive policy environment, the benefits from investments to raise on-farm productivity may not accrue to farmers. Without **access to finance**, it will be hard for smallholders to invest in productive assets or to get the working capital needed to purchase seed and fertilizer. This means facilitating leasing, micro-finance institutions, rural credit, warehouse receipt system, and mobile banking. It will also require **an effective land policy** with an effective implantation of the current legal and regulatory framework, including the functioning of the Land Commission (*Commission foncière*, COFO) and appropriate conflict-resolution mechanisms. A supportive policy environment requires creating competitive conditions and low transaction costs. Presently, this is often not the case. There are (near) monopolies in the market for paddy (Riz du

Niger), fertilizer, seed, phytosanitary products, and farm equipment (Central Supply of Inputs and Agricultural Materials [*La Centrale d'Approvisionnement en Intrants et Matériels Agricoles*, CAIMA]). The state is very active in the markets for cereal (Office of Food Products [*Office des produits vivriers*, OPVN]) and irrigation (National Hydro Agricultural Development Office [*Office National des Aménagements Hydro agricoles*, ONAHA]), often in a distortionary manner. Also regional 'collaboration' will need to be actively pursued to ensure open borders for Niger's produce, reduce transaction costs, and ensure sufficient access to water (of the Niger River).



## Figure 6.6: Productivity interventions can be spatially focused

*Source*: World Bank 2016 staff and S. Fritz, L. You, A. Bun, L. See, I. McCallum, C. Schill, C. Perger, J. Liu, M. Hansen, M. Obersteiner Cropland for sub-Saharan Africa: a synergistic approach using five land cover data sets Geophys. Res. Lett., 38 (2011), p. L04404 http://dx.doi.org/10.1029/2010GL046213

165. **On-farm productivity can be increased through greater attention to extension, improved availability of inputs and irrigation.** Where possible, because of the (sustainable) availability of water, economically feasible (small-scale, solar) irrigation is the preferred approach to raising productivity.<sup>104</sup> It reduces dependence on the weather, land pressure, and underemployment as multiple harvests are possible during the year. In addition to irrigation and improved water management, access to improved seeds and other inputs in combination with agricultural extension is needed. Agricultural extension is particularly important to reduce the yield gap between what is feasible with existing technologies and what is achieved in practice. The focus should be on increasing the production of staple foods: sorghum, millet, and cowpeas. This should be combined with action to raise the productivity of livestock, particularly birds and small ruminants, the animals most frequently owned by poor households.

166. To increase productivity of agriculture, the focus will need to go beyond agronomical aspects. To successfully raise agricultural productivity, a host of complementary activities needs to be taken. First gender differences need to be taken explicitly into account when designing interventions (see also para 192). In the absence of market access, increases in production may remain unsold and the positive effects of productivity enhancing investments may remain small (as per the CGE scenario discussed in Section 4.4). It suggests that attention needs to go to selected

<sup>&</sup>lt;sup>104</sup> Small-scale irrigation is much more cost-effective than large-scale. The cost of irrigation using sand dams and improved ponds ranges between US\$500 and US\$2,500 per ha against US\$12,000 per ha for large-scale irrigation.

supply chains and export corridors, to storage, and to the ability of farmers to organize themselves (e.g. organized in cooperatives farmers bypass middlemen and access markets directly). Market access also means investments in roads, particularly to the production basins.<sup>105</sup> In the absence of **access to information**, farmers may not be able to learn about new technologies or the prices of their products. **Access to energy** is critical for the (local) transformation of agricultural produce and for irrigation.

167. Activities to raise agricultural productivity may be combined with a guaranteed food or cash-for-work program. Section 6.1 demonstrated that transfers can dramatically reduce poverty. It is less known that such programs also raise agricultural productivity (and hence growth). Transfer programs offer households access to finance, and there is ample evidence that households that receive cash transfers invest in productive assets.<sup>106</sup> Next, and in the face of severe weather risks, people opt for income strategies that are geared at survival as opposed to increasing incomes. The consequences for poverty reduction are negative. It leads, for instance to the sale of productive assets when a crisis hits and/or the adoption of low-risk, low-return crops, overgrazing (as everybody invests their savings in cattle), and social practices such as early marriage of girls, which passes the risk of yet another mouth to feed to the family of the groom. Safety nets help address this and offer the freedom to make less-constrained choices. To be effective, safety nets need to be at scale and accessible in time of need—for instance in the form of (standby) cash- or food-for-work programs.<sup>107</sup>

1	Policy reform to address systemic biases affecting the rural sector
	Facilitate private sector provision of farm inputs
	Address agricultural market distortions caused by distribution of free food and seed
	(social protection)
	Ensure quality control of seed and fertilizer
	Improve security of tenure (women!)
	Promote access to finance (including leasing), particularly in rural areas
	Promote regional collaboration on cross-border trade, Niger River, and so on
2	Increase on-farm productivity through access to critical farm inputs (with particular attention to
-	women)
	Introduce high-quality, publicly funded (privately provided) extension services
	Develop drought tolerant, improved seed varieties (particularly for coarse grains)
	Make suited (solar, small scale) irrigation and water management technologies available and accessible
	Promote farmer collaboration (cooperatives, master farmer schemes)

<sup>&</sup>lt;sup>105</sup> Niger's road network is not very dense but only in few areas would additional paved roads be economically justified (that is, more than 100 trucks a day). Given the generally dry terrain, access problems are limited to the wet season. Improving access does not require pavement but spot improvements in critical areas.

<sup>&</sup>lt;sup>106</sup> For example, Monchuk, V. 2014. *Reducing Poverty and Investing in People: The New Role of Safety Nets in Africa*. Washington, DC: World Bank. doi:10.1596/978-1-4648-0094-8.

<sup>&</sup>lt;sup>107</sup> There is scope for large-scale safety nets that guarantee households a minimum income. For example, in 2016, a total of US\$257 million will be spent on emergency aid in Niger (Cabinet du Premier Ministre, Plan de Soutien 2016). This is equivalent to a cash-for-work program in which 2,000,000 participants (one from every rural family in Niger) works for 45 days at a wage of FCFA 1,300 a day (the going rate for cash-for-work programs), including 20 percent for overheads.

	Extension adapted to irrigation
	Increase productivity of livestock (with focus on small ruminants)
	Animal health services
	Improved rangeland management and secure livestock corridors
	Strategic destocking
	Promote sedentary livestock (including birds) and develop markets for livestock feed
	Develop value chains for livestock products
3	Improve market access and local transformation
	Improve rural access roads
	Facilitate storage and warrantees
	ICT-based information and market services
	Provide energy for local transformation of produce
4	Support vulnerable populations to protect and rebuild their productive capacity
	Scale up social protection; introduce guaranteed social protection
	Support displaced people and refugees (including host communities)

## Area of constraints 2: Inadequate human capital

168. Low levels of human capital are the second most binding constraint. The ability to work productively is the core asset of poor individuals. As labor is the main asset of the poor, alleviating this binding constraint is complementary to increasing rural productivity through supply and demand side measures. Increased productivity leads to higher incomes, which leads to better nutrition, which in turn improves the ability to work or to pay for health treatments. Better education, in turn, provides farmers more access to new information and aids the adoption of new technologies. Better-educated people are also much more likely to successfully migrate from rural to urban areas or to other countries. Better-educated girls are less likely to marry young.<sup>108</sup>

169. With an average of 1.4 years of education and malnutrition rates of 44 percent, addressing the human capital constraint is urgent. Specific attention will need to go to women, as they are particularly disadvantaged. To assure a decent rate of return, investments in human capital will need to be measured and designed with efficiency in mind. While the demand for education will inevitably grow, absorbing more students in schools where they hardly learn anything—as is the case presently—is tantamount to wasting money and human resources. Selective investments will need to be made to ensure that on the one hand minimum levels of literacy and numeracy are attained, and on the other, a sufficient number of people are being trained at higher levels of education to address existing skills shortages (with just 16 percent of adults having completed primary school, it is not evident who will teach the next generation, where qualified extension officers will be found, or who will run the administration once the current generation retires).

170. A first priority is to focus on improving the way services are delivered. The present mode of service provision leaves much to be desired and there are gross inefficiencies in which

<sup>&</sup>lt;sup>108</sup> The average age of first marriage for a girl is 15 when she has no education, 17 when she has primary education, 20 with secondary education, and 23 with tertiary education. (Source: ENISED 2015 survey).

current budgets are spent. Staff are few in some places and many in others. They are unmotivated and frequently absent. Critical inputs are not available. These factors lead to a situation in which the efficiency of spending is very low. This will need to change by changing the way in which services are delivered and in which resources are allocated. Achieving the twin objectives of higher levels of basic competencies and more people educated at higher levels also requires a reconsideration of the way the school system operates. An inclusive approach in the early years (when the unit cost of schooling is low) may have to be combined with an exclusive one for higher education levels when unit costs are high. It requires stringent selection based on quality and, concomitantly, high dropout rates.

171. The skill level of teaching and nursing staff also needs to improve. PASEC data demonstrate that students learn little while at school. The Service Delivery Indicator (SDI) provides an explanation as it demonstrates that a large fraction of teachers are functionally illiterate, whereas a majority of health staff are not able to implement basic health protocols. This needs to be changed by improving the quality at teaching colleges, retraining teachers, and, possibly, laying off those who lack minimum competencies.

172. **Competencies are not only low for teachers and health staff.** There are many areas in which professional skills and competencies need to be improved. As needs are enormous, the areas in which investments in skills should be made need to be carefully defined. However, investments in extension, health, education, mining, engineering, and journalism are aligned closely with this SCD.

173. There is a need to focus on behavioral change as complement to improved health services. Many diseases and conditions can be prevented through simple behavioral changes. This holds for malnutrition, which has a large dietary component, and for hygiene or reproductive health. Social protection programs have been found to bring about behavioral changes by making the receipt of cash conditional on certain behaviors (ante-natal visits, sending children to school, vaccination etc.). Another approach that relies on village health workers who carry a plethora of different messages is promising. Ethiopia has developed an interesting approach that builds on three core interventions: health extension workers, model families, and the health development army.

- Health extension workers are the key drivers of the program. Two health extension workers are deployed for each health post serving 3,000 to 5,000 population. They are recruited based on nationally agreed criteria that include residence in the village, capacity to speak the local language, graduation from 10th grade, and willingness to remain in the village and serve communities. Selection is done by a committee comprising members nominated by the local community and representatives from the district.
- **Model families** are those households that are (a) trained in maternal health, malaria prevention and control, and hygiene and environmental sanitation packages; (b) able to implement these packages after the training; and (c) able to influence their relatives and neighbors to adopt the same practices. Before becoming part of the health development army, model families are expected to meet regularly for experience sharing.

• The health development army is an organized movement of communities forged through participatory learning and action meetings. The army is designed to improve the implementation capacity of the health sector by engaging communities to identify local challenges and corresponding strategies. It is also designed for scaling up best practices from one part of the country to another.

174. **A final and complementary element is an access to information strategy.** It focuses on alphabetization—possibly along the lines of the health development army described above—and strengthening of media and development of content.

Table 6.3: Addressing the human capital constraint with particular attention to women

1	Address systemic governance failures that affect the health and education sectors
	Introduce service delivery models that enhance provider autonomy, align incentives with service delivery, and improve service quality
	Strengthen supervision and accountability to users
	Address geographic inequities in staff and other resources
	Enhance entry levels for recruitment and training colleges
	Promote curriculum adaptations (use of local language, Franco-Arab schools, focus on skills)
	Increase budgetary spending on health and education to the minimum level required for adequate service delivery
2	Improve the quality of teachers and health care providers
	Invest in training colleges and their curricula
	Retrain existing staff with potential
	Lay off unqualified staff and hire qualified staff (even if foreign)
3	Promote behavioral change (reproductive health, hygiene, nutrition, child care)
	Promote community health workers and behavioral change through social protection programs
	Promote alphabetization, national and community radio, TV, and other communication tools
	Develop appropriate media content for behavioral change
4	Invest in skills and competencies (with particular focus on economic opportunities for women)
	Invest in skills training in selected areas (extension, (higher) education, health, journalism, transformation of agricultural produce, mining, ICT)

## Area of constraints 3: Poor governance

175. **Many development opportunities remain unrealized because of poor governance of the public and private sector.** This is the third binding constraint. The capacity of the administration is limited and incentives are not well aligned with service delivery. The business environment is constrained by a high regulatory burden, limited competition, and an administration that adheres to a state-led approach to service provision. Addressing these constraints in a competitive, donor and natural resource dependent political settlement with low bureaucratic capacity is a major challenge. Yet, doing so is imperative to unlock Niger's development potential and to make the country (and political settlement) more resilient to shocks.

176. Four building blocks to alleviate this constraint are identified. First, security and stability need to be ensured as this is a prerequisite for development. Already heightened insecurity forces the country to spend increasingly on its military. Defense, order, and security represented 13.4 percent of the voted budget in 2015 compared to 8 percent in 2011. While this reflects a significant increase, it is not abnormal given the security context and the need to catch up after a period of very low spending. While more spending on security implies, by definition, less for more developmental purposes it would be incorrect to juxtapose security and development, security being a necessary but not sufficient condition for development. In addition to increased spending on security, it is important to closely monitor the situation because, even though the country is stable at present, there exist risk factors such as a major drought or a tightening of the elite coalition that could trigger widespread instability and violence. While certain aspects fall outside the realm of development actors, there are also activities that they can undertake to reduce Niger's fragility. Support to people displaced by violence and their host communities helps prevent vicious cycles of conflict-deprivation and more conflict. Strengthening formal and informal dispute resolution mechanisms; strengthening the internal security forces (police, gendarmerie); and preventing illegal activities and money laundering are some activities that development actors can undertake to help prevent (future) conflicts.

177. Next, the capacity to deliver citizen-centered public services will need to be strengthened. Improving the capacity of the public service across the board may not be feasible given the many vested interests and inability to implement a long-term strategy, but an opportunistic approach is achievable. After all, the state is a complex organization machine, whose actions are shaped by its actors, officials and bureaucrats; their histories and personalities; and the incentives they face. Within the state, 'islands of effectiveness' already exist. Others could possibly be created in areas at the SCD: education, health, agricultural extension, public finance management, or statistics—particularly if the latter would provide the data needed to assess civil service performance.

178. An approach needs to be adopted that reaches citizens directly and empowers them. Past approaches have not been able to deliver effectively as evidenced by the fact that service provision is unequal (very much focused on Niamey) and of low quality and low efficiency. A more citizen-centered approach offers promise particularly when it targets the local level, strengthens local initiatives and decision making, and embraces service delivery by whoever is capable of doing so. Such an approach would give citizens choice over who provides services and enhances ownership, a precondition for sustainability, and might change the focus of the polity (and donors) away from a centralized, state-led development model as the transfer of resources to citizens creates incentives to invest locally.

179. New technologies make direct, citizen-centered service delivery realistic. The mobile phone revolution has in many ways shown the way, demonstrating how this technology not only enables communication but also financial inclusion and market access. As important as mobile telephony is affordable solar power, which brings access to energy within the reach of many. Also, the reduction in scale at which technology operates efficiently is important: (affordable) smart phones instead of main frame computers and (affordable) motorbikes instead of buses democratize access to technology and reduce the need for collective action (by the state). It makes small-scale solar irrigation feasible in settings where large-scale irrigation used to be the norm. It makes market

access less dependent on well-maintained roads as small trucks and motorbikes can navigate poorly maintained infrastructure.

New technologies deserve to be systematically embraced because they reduce 180. transaction costs, improve targeting and supervision, and offer scope for private sector service provision. An enabling environment for targeting and service provision starts by ensuring self-identification of every citizen. Cheap identification is possible, as demonstrated by India's Aadhaar program which offers every citizen a unique ID at less than US\$1 per person. An enabling environment also requires mobile phone access. It necessitates expanding the mobile phone network and raising competition in the sector. It includes promoting investments in these technologies, which requires revisiting the tax code that puts mobile phone and solar equipment in the high import tariff bracket (upward of 40 percent). It requires ensuring that financial regulations become conducive to mobile financial services and a state that actively embraces these services, for example, by making salary payments through mobile phones. Already new technologies have created different approaches to service provision such as direct transfers of cash to social protection beneficiaries or of input subsidies to farmers by using e-vouchers. Not only do such technologies reduce transaction costs, they allow for better targeting and enhance possibilities for supervision. The combination of such technologies creates new opportunities for service provision by the private sector: local shops can provide the farm inputs that e-vouchers subsidize. Private extension agents can offer services paid for by e-vouchers sent to farmers. New technologies can also improve accountability, for instance, by checking teacher absenteeism or the presence of students.

181. More direct service delivery to citizens needs to go together with a strengthening of the state at the central level. Addressing central governance constraints in a competitive political settlement with low bureaucratic capacity is a major challenge. A long-term strategy to building capacity is required. Improving capacity across the board may not be feasible given the many vested interests and inability to implement a long-term strategy, but an opportunistic approach is achievable. Others could be created in areas such as education, ICT, quality control—critical when much more service provision is handed over to private entities—extension, or statistics (the latter definitely when statistics are used to assess the performance of service providers).

182. Third, economic opportunities need to be realized. In addition to the agro-industrial sector which was discussed under area of constraints 1, this holds for the telecom sector—which also plays a critical role in developing citizen-centered approaches—and for the mining sector which has much potential for growth<sup>109</sup> and developing forward and backward linkages. Cities, primary as well as secondary, should be seen as centers of economic growth and transformation. As such, sufficient attention needs to be paid to city planning, to infrastructure provision (roads, energy, water and sanitation, telecom) and to ensuring a conducive business environment for formal as well as informal sector activities.

183. **To unlock Niger's growth potential, the cost of doing business needs to be reduced.** Transport costs are very high because of cartels, poor maintenance, a large number of checkpoints, and inefficient and costly procedures. The informal sector needs to be promoted and security of

<sup>&</sup>lt;sup>109</sup> As always, there are many sensitivities around increasing revenue from mining. An additional but important factor in Niger is that many former rebels in the north of the country are involved in artisanal gold mining. Any regulation or development of this sector can easily go against their interests and would create a very explosive atmosphere.

contracts and tenure improved. Rural input and output markets are distorted by state interventions and the activities of public companies. Public investments should be limited strictly to economically viable investments and should be used to crowd-in private investments and to support areas with evident market failures. Instead of using public investments to replace private investments, which are not forthcoming because of policy failures, policy reform should be used to attract private investors.

184. **Developing cities is an integral part of an inclusive growth strategy.** Well-functioning cities are centers of income generation and growth. Cities can be centers of knowledge, innovation, and production as the concentration of people in cities generates opportunities for interaction, exchange, and specialization. To promote their vital economic role, it is essential that cities present an enabling environment for private sector development, attract skilled labor, and provide adequate infrastructure and services such as transport, communications, power supply, water and sanitation, housing, and financial and business services. Cities need to be able to generate their own revenue, which typically comes from land transactions or taxation of land and property.

185. **Mining presents another sector with growth potential, but transparent governance is a precondition.** Niger's ample and largely unexploited natural resources represent a huge potential for revenue generation—revenues which in turn can be used to stimulate growth or for poverty reduction. However, too often natural resources turn out to be a curse, and few of the potential benefits are realized. To avoid this, natural resource development needs to be preceded by improvements in the governance of the extractives sector, as well as by a strengthening of the PFM system, to ensure that any additional revenues that are generated from mining development are indeed translated into increased spending for public services.

186. **Finally, the management of public finances needs to be improved.** This includes PFM systems which received devastating scores in the latest PEFA assessment—concluding that the system was insufficient to ensure macro-stability, and public investment management. Planned public investments need to be reviewed for their allocative, productive and distributive efficiency and the effectiveness with which existing projects are being implemented explored. The quality of statistics needs to be improved if decision making is to be informed by data and to enhance the readiness for RBF.

187. Some of the coup d'etats that took place in the past can be directly linked to the inability of the then governments to handle the consequences of drought. It shows the importance of preventing some shocks from happening (for instance by investing in irrigation and drought-resistant crops) and the need to create financial buffers in time of plenty or buy insurance to deal with shocks when they materialize. The vulnerability of the economy and public investments to the commodity price shock and the associated recession in Nigeria with its spillovers to Niger further illustrate the need to come up with policies that allow the country to better deal with shocks.

188. **Improved donor coordination is an integral element of improved public financial management.** In a setting where a large fraction of the budget is funded by donors, and where the capacity of the administration is limited, donor coordination—among themselves and with the authorities—is critical. It is needed to avoid duplication, to reach scale, and to avoid too many
interesting pilots that are never scaled up. Coordination can take many forms: a promising approach is co-financing of one activity by multiple donors.

#### Table 6.4: Governance constraints to inclusive growth and service delivery

1	Reduce security risks and stressors to stability						
	Reinforce formal and informal conflict resolution mechanisms						
	Promote an efficient and independent judicial system and professional internal security forces						
	Address illicit financial flows						
	Monitor stressors on security and stability						
	Support conflict-affected and displaced populations (including host communities)						
2	Enable citizen-centered service delivery						
	Promote public sector capacity through selected centers of excellence						
	Create a competitive ICT sector with network coverage in rural areas (including schools, clinics, and so on)						
	Give preference to (e)-voucher systems and direct transfers to citizens to enhance choice and ownership						
	Promote private/NGO provision and RBF						
	Strengthen statistics for decision making along with citizen accountability and external quality control						
	Give people an identity (ID4D)						
3	Develop economic opportunities: mining						
	Promote extractive industries governance; improve oversight and regulatory capacity						
	Improve size, collection, and management of revenues (including transparency)						
	Developing new sites in accordance with good governance principles						
	Develop economic opportunities: primary and secondary cities						
	Improve city management, planning, zoning, and land market development						
	Enable the informal and formal private sector						
	Ensure reliable, affordable, and sustainable electricity provision (on-grid); water; and transport						
	Develop economic opportunities: trade and business environment						
	Promote private sector development and trade and create an enabling business environment						
	Reduce the cost of transport, particularly on main corridors						
	Facilitate regional integration and cooperation						
4	Strengthen public financial management						
	Implement efficient and transparent PFM systems						
	Strengthen public investment management						
	Develop approaches to financial stabilization						
	Improve donor coordination						
Note	<i>Vote:</i> ID4D = Identification for Development Initiative.						

# 189. Multiple synergies exist between the three areas of constraints which allow addressing the underlying factors identified in the analytical framework particularly risk, and population (governance already is a binding constraint).

• **Population** is addressed, in part, by promoting irrigation. Such a policy would increase productivity (and household incomes) while alleviating the land constraint at the same time. Implemented at scale an irrigation initiative that focuses on

smalholders would be instrumental to averting a Malthusian crisis that might otherwise develop. It is complemented by investing in improved health services and activities aiming to engender behavioral change, including through improved access to information, commune health workers, social protection programs and alphabetization.

• **Risk.** Climate risk and more broadly, fragility, are addressed through a focus on irrigation and strengthening the ability of farmers to adapt (extension services, access to information). Assistance to vulnerable populations, through social protection and assistance to displaced populations and recipient communities help address the consequences of fragility while city development, investments in human capital, and approaches to strengthen the abilities of the state at financial stabilization are aimed at enhancing resilience.

## 190. Gender is relevant to all of the three binding constraints and must be taken into account in the proposed mechanisms to address the binding constraints.

- Low rural productivity. The identification of approaches to increase Niger's agricultural productivity must take into account the likely impacts on (a) women's access to labor; (b) women's child care responsibilities and time available for farming; and (c) women's access to land (the three factors identified by Backiny-Yetna and McGee as underlying the agricultural productivity gender gap in Niger). To promote women's access to farm labor, the Government could explore interventions that provide women with finance to hire farm labor or that task agents with helping women find labor. To address the negative impact of the household dependency ratio on women's relative productivity, there should be a strong focus on reducing fertility and exploring policy options such as community-based child care. This would not only allow women to spend more time on productive activities and on supervising farm labor but would also allow women to participate in groups such as producer organizations, which can be an important source of technical information and learning.<sup>110</sup> On land, there is evidence from other countries in the region: in Rwanda, for legally married women, the Land Tenure Reform pilot program increased women's documented land ownership and increased the likelihood of investing in soil conservation (with twice the impact on women as on men).<sup>111</sup>
- It is also important that non-gender-specific policies take gender concerns into account in their design. For example, the identification of new agricultural technologies/techniques should take into account their likely impact on women's time. Some types of climate-smart agriculture have been shown to increase the burden of labor on women. For example, in Zambia, conservation agriculture may have added to women's relative time burden as it involves more weeding, which is traditionally a

<sup>&</sup>lt;sup>110</sup> Wouterse, F. 2016. *Empowerment and Agricultural Production: Evidence from Rural Households in Niger*. IFPRI discussion paper 2016.

<sup>&</sup>lt;sup>111</sup> Ali, D. A., K. Deininger, and M. Goldstein. 2014. "Environmental and Gender Impacts of Land Tenure Regularization in Africa: Pilot Evidence from Rwanda." *Journal of Development Economics* 110: 262–275.

woman's role.<sup>112</sup> Another example of the importance of designing interventions to be gender sensitive is with extension services, which should take into account cultural norms that may prevent women from benefitting, for example, by training a sufficient number of female agents or by focusing on gender training for male agents.

- **Inadequate human capital.** There is a need for a specific focus on women's human development, given the poor maternal heath indicators, extremely high fertility and adolescent fertility, and gender gaps in schooling and literacy. These issues can be addressed by non-gender-specific interventions to improve overall service quality in health and education and also by gender-specific interventions, such as behavioral change interventions and access to information (targeting both women and men) to influence demand for large families and attitudes to investing in girls' education<sup>113</sup> (for example, see UNFPA [2014] on the 'ecoles des maris' model in Niger; conditional cash transfers to keep girls in school and delay marriage and childbearing;<sup>114</sup> and combined youth vocational and life skills training to reach those girls who have already left school and are unlikely to return.<sup>115</sup>
- **Poor governance.** Addressing some of the governance challenges in the public and private sector may bring particular benefits to women. Efforts to improve the enabling business environment are likely to be particularly important for women, who tend to have less access to the resources (money, time, literacy, social networks) that are needed to overcome complex and financially costly/time-consuming regulations.<sup>116</sup> Efforts to enable the informal sector will also benefit women who are even more likely than men to operate informally. As discussed above, efforts to improve tenure security can also be especially beneficial for women (by improving their access to collateral and incentives to make productivity-enhancing investments in land) if they are done in a gender-sensitive manner. There are additional barriers for women trying to conduct business. The Civil Code, for instance, provides for the male as the head of the household with 'marital authority' over his wife and explicitly limits her legal capacity in marriage, including with respect to exercising a profession and opening a bank account. Even though the Commercial Code allows women to have independent

<sup>&</sup>lt;sup>112</sup> Kaczan, D., A. Arslan, and L. Lipper. 2013. "Climate-Smart Agriculture: A Review of Current Practice of Agroforestry and Conservation Agriculture in Malawi and Zambia." United Nations Food and Agriculture Organization, Rome. http://www.fao.org/docrep/019/ar715e/ar715e.pdf.

<sup>&</sup>lt;sup>113</sup> UNFPA (United Nations Population Fund). 2014. "Niger - Husbands' Schools Seek to Get Men Actively Involved in Reproductive Health." http://niger.unfpa.org/docs/SiteRep/Ecole%20des%20maris.pdf.

<sup>&</sup>lt;sup>114</sup> Baird, Sarah, Ephraim Chirwa, Craig McIntosh, and Berk Ozler. 2010. "The Short-term Impacts of a Schooling Conditional Cash Transfer Program on the Sexual Behavior of Young Women." *Health Economics* 19 (1): 55–68. Baird, S., C. T. McIntosh, and B. Ozler. 2011. "Cash or Condition: Evidence from the Cash Transfer Program." *Quarterly Journal of Economics* 126: 1709–53.

Baird, S., R. S. Garfield, C. T. McIntosh, and B. Ozler. 2012. "Effect of a Cash Transfer Programme for Schooling on Prevalence of HIV and Herpes Simplex Type 2 in Malawi: A Cluster Randomized Trial." *Lancet* 379: 1320–9. <sup>115</sup> Bandiera, O., R. Burgess, M. Goldstein, N. Buehren, S. Gulesci, I. Rasul, and M. Sulaiman. 2014. *Women's Empowerment in Action: Evidence from a Randomized Control Trial in Africa*.

Adoho, F., S. Chakravarty, D. T. Korkoyah, M. K. Lundberg, and A. Tasneem. 2014. "The Impact of an Adolescent Girls Employment Program: The EPAG Project in Liberia." Policy Research Working Paper 6832, World Bank, Washington, DC.

<sup>&</sup>lt;sup>116</sup> Simavi, S., C. Manuel, and M. Blackden. 2010. *Gender Dimensions of Investment Climate Reform: A Guide for Policy Makers and Practitioners*. Washington, DC: World Bank and IFC.

business activities and sign contracts without their husbands' permission, cultural attitudes and lack of access to finance make this difficult in practice.<sup>117</sup>.

191. Finally, new technologies could be leveraged to free up women's time and or counter the negative impacts of their relatively lower geographical mobility (it has been documented that women of certain ethnic groups are less likely to travel freely outside of their home villages).<sup>118</sup> For example, mobile phones can allow women to access market or other information despite their relatively lower geographical mobility. However, the benefits to women are not inevitable and interventions must consider specific gender issues in their design. For example, in the case of mobile phones, it is possible that men benefit more because they tend to have greater control over household assets, they are more able to use mobile phones because of their higher literacy rates, or because they have larger social networks that they can leverage with mobile phones.

#### 6.5 Additional Research Suggested

192. The preparation of this document has allowed identifying some knowledge gaps to formulate and implement an effective poverty reduction strategy. They are listed here.

193. The spatial focus of interventions. There is an urgent need to increase agricultural productivity. Between 1990 and 2010, Niger's population increased by 77 percent, with the largest increases in population occurring in Maradi (2 million), Zinder (1.6 million), and Tahoua (1.6 million). This rapid population expansion places increasing stress on limited natural resources. Only a small fraction (approximately 3.3 percent) of the country receives more than 500 mm of precipitation, and although recent increases in rainfall have seen this area expand by 25 percent, Niger's expanding food needs may soon outstrip its agricultural expansion. Between the 1980s and 1990s, the amount of farmland expanded faster (+51 percent) than the population (+37 percent), resulting in a net increase in per capita cereal production. Between the 1990s and 2000s, however, the amount of farmland increased by 20 percent, whereas the population increased by 42 percent, resulting in a net decrease in food availability. By 2025, if Niger's rapid expansion of farmland slows while its yield growth remains stagnant, Niger's projected population of 26 million people could face substantial shortfalls in food availability. In the past, Niger has experienced large, natural variations in mean rainfall on decadal time scales. If another natural rainfall decline occurs, the impact of this dryness could be aggravated by the effects of warmer air temperatures.<sup>119</sup> A study is suggested to identify those areas most at risk from the combination of population increase, limited land availability, and climate change with a view of suggesting which (combination of) interventions should be followed to address this vulnerability. The study could extend the argument presented in Figure 6.6 that interventions could be spatially focused and should be instrumental in identifying which type of interventions should focus where and could facilitate the (spatial) allocation of projects.

<sup>&</sup>lt;sup>117</sup> Hallward-Driemeier, M. and T. Hasan 2013. Empowering Women. Legal Rights and Economic Opportunities in Africa. World Bank. Washinton D.C.

<sup>&</sup>lt;sup>118</sup> Aker, J. C., C. Ksoll, and T. J. Lybbert. 2012. "Can Mobile Phones Improve Learning? Evidence from a Field Experiment in Niger." *American Economic Journal: Applied Economics* 4 (4): 94–120.

<sup>&</sup>lt;sup>119</sup> FEWSNET. 2012. A Climate Trend Analysis of Niger. http://www.fews.net/west-africa/niger/climate-change/june-2012.

194. Transfering scientific knowledge to farmers on how to increase vields effectively and at scale needs investigation. The SCD has pointed to the disconnect that exists between knowledge present in research stations and what farmers practice. Box 6.1 has offered some illustrations of farming practices that are doable and have high returns but which are not applied at scale. How to ensure that farmers improve their productivity a context where extension services are understaffed and underqualified (skills) and where farmers are largely illiterate deserves investigation. The SCD has suggested to invest in the expansion of extension services. However, agricultural extension has not had a stellar history. A review prepared by the World Bank in 2007 concludes that World Bank interventions have had a significant positive development impact, but maintains that serious deficiencies persist in most of the supported national systems particularly with respect to the sustainability agricultural of institutions and systems developed under World Bank projects is of particular concern.<sup>120</sup> More recent impact evaluations suggest that the impact of extension can be substantial and suited for targeting to women and producers with limited literacy.<sup>121</sup> Yet a systematic evaluation of 92 impact evaluation of farmer field schools concludes that in small-scale or pilot programs, farmer field schools lead to improved knowledge and changed agricultural practices, while the few evaluations of large scale programs showed that such programs are not effective in the longer term. They also found that non-participating neighboring farmers do not benefit from diffusion of knowledge from farmers who participate; suggesting that farmer field schools may not be cost-effective compared to more traditional extension program. Others arrive at different conclusions: Hansen and Duveskog (2012) find that participation in farmer field schools empowered people by building the capacity of local people to make choices and make decisions that ultimately lead to increased uptake of agricultural innovations, access to services, and market access as well as collective action.<sup>122</sup> A major conclusion of their study is that agricultural development programs should focus more on processes of empowering farmers as opposed to technical solutions that characterize most programs, in order to create an appropriate mix of technological and social advancement for a development process that is sustainable in nature. As there is ample evaluation material available, it is suggested to prepare a review on the effectiveness of different kinds of agricultural extension services, with specific reference to identifying approach that could be effective in Niger: i.e an environment with low levels of literacy and low levels of farmer organization in particular where interventions at scale are needed.

195. As it is needed to better understand how to do extension effectively, it is equally needed to understand why small scale solar irrigation has not yet taken off. The SCD suggests that small scale solar irrigation is the equivalent of "big bills left on the sidewalk". Hence the question is legitimate why, of this is such a great solution, it has not been taken up yet at scale. In Niger, that is, as in countries like Kenya it has.

http://dx.doi.org/10.1016/j.worlddev.2011.05.005.

<sup>&</sup>lt;sup>120</sup> Dennis L. Purcell and Jock R. Anderson (2007). Agricultural Extension and Research. Achievements and Problems in National Systems. World Bank Operations Evaluations Study.

<sup>&</sup>lt;sup>121</sup> This evaluation of a farmer field school project amongst small-scale farmers in East Africa found that participation in farmer field schools increased income by 61 percent. Participation improved agricultural income and crop productivity overall K. Davis, E. Nkonya, E. Kato, D.A. Mekonnen, M. Odendo, R. Miiro and J. Nkuba (2012). Impact of Farmer Field Schools on Agricultural Productivity and Poverty in East Africa. *World Development*, Vol. 40(2): 402–413. http://dx.doi.org/10.1016/j.worlddev.2011.05.019.

<sup>&</sup>lt;sup>122</sup> Esbern Friis-Hansen and Deborah Duveskog (2012). The Empowerment Route to Well-being: An Analysis of Farmer Field Schools in East Africa. *World Development* Vol. (2) 40:414–427.

196. The process of urbanization is another area in need of further investigation. The SCD has noted the scope of urbanization for growth and poverty reduction. It has also noted that Niger seems to be under-urbanized and pointed to the fact that forced migration could accelerate urbanization at any time. Knowledge about the current process of rural-to-urban migration as well as about (bottlenecks to) urban growth and how urban growth translates into poverty reduction is very limited.

Inform core policy reform with analytical work. The SCD has made clear how policy 197. reform is urgently needed to remove obstacles to growth and poverty reduction. Identified were trade reform and improvements to the business environments, reform in the delivery of agricultural inputs and services, and reforms in the way social protection is provided or with respect to PFM and public investments (a Public Investment Management Assessment [PIMA] and revenue collection (tax exemptions; mining taxation) would be recommended in view of the performance of past major public investment schemes).<sup>123</sup> As many public services are offered through stateowned enterprises, and as many services are inadequate, they too should be considered an object of reform. Before initiating reform, it is suggested to prepare in-depth analytical work, as the political-economy landscape is too complex and too personalized to pursue run-of-the-mill solutions (see Box 6.1): who are the key actors, how do the poor benefit from their services at present, how effective is the service delivered, what alternatives exist, how can they be brought about (through policy reform or otherwise), and who might support and who would oppose the proposed reform. In-depth analytical work combines sector-specific knowledge with information on governance. To motivate the reforms, they could be combined with detailed information on how the poor do, or do not, benefit from the activity at present as poverty reduction remains the lens through which the effectiveness of policy reform should be judged.

198. **Public Expenditure Review (PER) of spending on agriculture.** The Niger Government has realized the importance of increasing the productivity in agriculture as evidenced by the launch of the 3N Initiative (the Nigeriens Nourish the Nigeriens Initiative, or I3N) in 2011. The initiative is coordinated by a High Commission. Its objective is to build national capacities with regard to food production, supply, and resilience to food crises and disasters. The program is a flagship program and Niger has earmarked 25 percent of its budget to it. The initiative includes 5 priorities and 12 key programs that seek to diversify agricultural, livestock, and forestry production to increase yields, irrigate more land, enhance market supplies, improve crises and disaster responses, and fight malnutrition. The various programs are potentially critical to address the area of constraints related to increasing agricultural productivity. However, information about the effectiveness of I3N and the implementing agencies (typically ministries) is scant. Proposed is a public expenditure review that focuses on spending in agriculture which considers the institutional

<sup>&</sup>lt;sup>123</sup> PFM reform could be motivated by considering the equity effects of public finances. The SCD has pointed out the degree to which redistribution can potentially contribute to poverty reduction, either through cash transfers or increased social spending. At present, little is known about the redistributive aspect of the budget. On the revenue side, much revenue is (virtually) raised from poor households as it comes from mining or in the form of aid. On the spending side, much is allocated to social sectors or sectors that benefit all households (such as security or justice), but how this benefits poor and nonpoor households is less evident. After all, nonpoor households also send their children to school, so not all social spending can be considered pro-poor. A CEQ (Commitment to Equity) analysis can shed light on the redistributive aspects of the budget and provide a point of departure for identifying the need and scope for improved redistribution.

layout (including coordination by 3N), past and expected funding and results achieved, and the allocative efficiency and effectiveness of spending.

199. An agricultural PER should also seek to explore why technical services, including those in agriculture and community services, have received so little state support. In contradiction to widely held beliefs about the 'retreat of the state', the gendarmerie and health and education sectors have grown in size in recent years. Other sectors, on the other hand, are in decline or are seeing their activities scaled down or revamped. In some cases, their actors in the field are completely lacking resources and are therefore discouraged and unmotivated. In technical services such as sanitation, community development, livestock farming, agriculture or adult literacy—at both municipal and department level—there is generally only one actor (sometimes with a backup, usually a civic service worker), who lacks the necessary means to carry out his/her mission (having neither a vehicle, petrol, nor professional expenses) and who hence has nothing to do except wait for the miraculous arrival of a possible 'project' (funded by a development agency) that will come to his/her aid.<sup>124</sup>

200. The pursuit of local solutions requires local knowledge. A critical conclusion of the SCD is that greater efforts need to be made to find local solutions that reach citizens directly. Doing so effectively will require more local knowledge at the program design stage. How do stronger local organizations contribute to poverty reduction, for instance? It has been argued that stronger local organizations improve resilience to conflict and climate change and can be instrumental to overcoming market-access constraints. Local organizations can be vehicles for literacy programs or social safety net interventions and could strengthen local accountability: how local organizations could do so; what type of organizations might be supported (NGOs, school committees, faith-based organizations, farmer groups, savings groups); and how best to support these organizations in ways that avoid elite capture or accountability toward donors instead of members, need to be investigated. Similarly, micro-irrigation is promising because it increases yields and reduces vulnerability to drought, but how to introduce it in such a way that the poorest (who may be landless) benefit, and how to ensure that women (who typically are not the proprietor of the land that is irrigated) benefit as well? Off-grid solar systems may offer local energy solutions, but how to make sure that these systems also benefit the poor? Such questions are not new to the World Bank, but they become particularly pressing when more direct engagement of citizens is envisaged. Additional research that ensures the knowledge on governance (elite capture), poverty (targeting), and social development staff (local solutions) is available to teams designing projects to help them design better projects.

201. It is important to investigate what is needed to arrive at a more efficient logistics system. Low transport cost and access to all-weather roads seem critical for growth and poverty reduction. Yet, a better understanding of the impact of improved logistics on poverty reduction and the conditions under which reduced transport costs are most effective for reducing poverty is pertinent. To develop an efficient transport system, the various costs and benefits need to be better understood so that informed trade-offs can be made between different transport modalities (air, rail, roads) and within modalities between types (trunk, feeder, and rural roads). In addition, more evidence is needed to identify where investments are justified, where transport costs can be

<sup>&</sup>lt;sup>124</sup> Jean-Pierre Olivier de Sardan. "The Delivery State in Africa. Interface Bureaucrats, Professional Cultures and the Bureaucratic Mode of Governance." Mimeo.

reduced through policy reforms alone, or where a combination of both investment and policy reform is needed.

202. **The land question needs attention.** Productive land in Niger becomes increasingly scarce, and a lack of security of tenure can be a critical obstacle to growth and poverty reduction. Security of tenure is important for various reasons: to protect against land-grabbing and displacement, ensure sustainable land management, increase investments, mitigate the consequences of climate change, avoid speculation, and address conflicts between pastoralists and farmers. The land issue is multilayered and varies by geographical location. In rural areas, tenure rights are based on the 1993 Rural Code which recognizes traditional land ownership. This legislation provides for land management by local land commissions and an affordable and short process to secure tenure rights. However, a 2013 audit noted how very few titles have been issued, either because land commissions were not set up or remained under staffed or because beneficiaries in rural areas are not interested in formalizing their tenure rights. A study to assess these aspects, including the adequacy of the legal framework with respect to irrigated land, (peri)-urban land and pastoralist corridors, and options to address any eventual shortcomings therein, is recommended.

#### Box 6.3: Not all interventions are equally politically attractive

Not only policy reforms should be assessed for their political feasibility. Different activities also differ in the types of political dynamics they attract. There are predictable reasons why a service such as hospital health care is likely to raise different levels of political support compared, for example, to urban water supply. At least part of the explanation lies in the characteristics of these services. At their core, these characteristics concern the nature of the good being delivered, the type of market failure being addressed, the tasks involved in delivery, and how a service is demanded and consumed.

Politicians' incentive to provide or improve a service is greatest where it offers exclusive and targetable private rather than public benefits (for example, social protection rather than sanitation); where it benefits users directly rather than through external effects on the wider population (bed nets rather than disease vector control, fertilizer vouchers rather than quality control of imported inputs); and where citizens have information to understand the benefits and results are visible in the short term and can therefore be clearly attributed to politicians' action (for example, construction of schools rather than improvement of teaching standards).

Policy makers and managers are more able to monitor and control providers where the providers do not have a high degree of professional dominance and where they exercise relatively little discretion (as in standard procedures for vaccination); where procedures and outputs (for example, infrastructure construction) are easily specified and measured; where the service delivered is a public good offering few opportunities for disruptive rent-seeking (for example, public health campaigns); and where managerial information is accessible because the service offers direct benefits (rather than external effects) to definable clients within clear territorial boundaries.

Users' power and capacity to organize collectively is greater where a service is used frequently and predictably within a limited territory (for example, irrigation schemes or primary schooling by comparison with hospital health care) and users are able to assess the quality of the service, allowing the formation of shared opinion and demands; where there is choice rather than monopoly in supply; and where the service offers easily visible and short-term benefits to known beneficiaries (a health center rather than a public health campaign). However, collective organization is easily diverted by users' competition for private benefits (such as access to water in irrigation schemes) that can be targeted to favored people at the discretion of the provider.

Together, service characteristics affect the political salience of a service. Based on this framework, small-scale irrigation could be expected to have a high rating for political salience because it is both easily attributable to political effort (targetable, visible, and measurable) and presents possibilities for organized demand (frequently and predictably used within a limited territory). Primary education is not easily attributable after the initial construction of a school has been accomplished, but its predictable and territorial usage may foster organized demand for sustained improvement. Tertiary (hospital) health care may, similarly, be most politically attractive in the construction phase but offers a much weaker basis for sustained demand for quality treatment. Programs of preventive health care, fertility control, and community sanitation have strong public good qualities but produce

personal benefits that are not easily understood or visible except in the long term; they present the dilemma of requiring a public health crisis or a bold political gamble before conditions are created for any visible political payoff.

Recognizing that services have their own profile can help identify the political feasibility of interventions. Comparing the 'theoretical' profiles with what happens on the ground may also help identify avenues for interventions. For instance, if it is found that farmers are not organized, whereas being organized improves productivity, may help shape intervention mechanisms that bring them together—such as extension vouchers that need to be pooled to pay for (jointly identified) extension services.

*Source:* Adapted from Batley and Mcloughlin (2015). The Politics of Public Services: A Service Characteristics Approach. *World Development* vol. 74: 275-285.

### Annex 1: Ordinary Least Square Regression of Log per Capita Consumption

	(1)	(2)	(3)	(4)	(5)
	National	Urban	Rural	Agricultural	Agro-Pas
Household composition					
Number of children below 4	-0.091***	-0.100 ***	-0.086***	-0.069***	-0.106*
Number of children ages 5-9	-0.096***	-0.100 ***	-0.095***	-0.098***	-0.090*
Number of children ages 10-17	-0.042 ***	-0.049 * * *	-0.035***	-0.031***	-0.034*
Number of female adults	0.006	-0.011	0.019	0.039*	0.032
Number of male adults	-0.042 ***	-0.039***	-0.049***	-0.081***	-0.049
Head demographics					
Head is female (Yes)	-0.079 * * *	-0.040	-0.096***	-0.106*	-0.096
Age of head	-0.005*	-0.011*	-0.006*	-0.011*	-0.006
Age squared	0.000	0.000	0.000	0.000*	0.000
Head Sectors (agriculture is omitted)					
Services	0.122***	0.111**	0.052	0.018	-0.016
Industry	0.264***	0.236***	0.230***	0.205***	0.309**
Other	0.126***	0.102**	0.121***	-0.002	0.196**
Head education (no education is omitted)					
Primary	0.102***	0.129***	0.051*	0.005	0.072*
Secondary	0.211***	0.231***	0.114***	0.107	0.120*
Tertiary	0.610***	0.644***	0.505***	0.597**	0.565
Head ownership					
Own house	-0.007	0.057**	-0.105**	-0.151**	-0.026
Own agriculture. land	0.016	0.006	0.038*	0.024	0.141**
Connected to water pipe	0.120***	0.086***	0.085***	0.111***	0.094**
Connected to grid	0.443***	0.402***	0.376***	0.330***	0.283**
Regions					
Agadez	-0.032	-0.098	-0.030		0.194**
Diffa	-0.147 * * *	-0.196 ***	-0.167***	-0.159***	
Dosso	-0.239***	-0.391***	-0.233***	-0.172***	-0.102*
Maradi	-0.108***	-0.225***	-0.110***	-0.063	0.027
Tahoua	-0.199***	-0.449***	-0.184***	-0.010	-0.126*
Tilaberi	-0.111***	-0.274***	-0.098***	-0.155 ***	0.070
Zinder	-0.039	-0.201***			
Constant	12.756***	13.130***	12.819***	13.014***	12.448*
Observations	3,728	1,410	2,318	872	856
R-squared	-0.599	0.587	0.301	0.284	0.382

*Source*: Staff estimations using LSMS-ISA 2011. *Note:* Standard errors in parentheses: \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

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#### **Annex 2: Additional CGE simulations**

#### Investing in education

1. Greater education attainment supports economic growth and benefits low-income households in the long term. Having a more skilled population expands the economy's productive capacity. A 1 percent increase in skilled workers supports a 0.21 percent boost in GDP.<sup>125</sup>

2. As expected, boosting investment in education would be progressive. The consumption of poor households increases by 0.3 percent relative to the baseline as wages rise. An increase in the supply of skilled workers lowers the wage of skilled workers by around 2.5 percent relative to the baseline. Similarly, a reduction in the supply of unskilled workers increases the wages of unskilled workers by about 0.2 percent. In the long term, since skilled workers earn higher wages than unskilled workers, aggregate incomes are higher and this supports greater consumption.<sup>126</sup>

#### Public expenditure options

3. Increases in nonproductive public expenditure that is funded by debt leads to a contraction in economic activity in the long term.<sup>127</sup> Two possibilities are analyzed, one where there is an increase in defense spending of about 1 percent of GDP and another where there is an increase in public investment of about 1 percent of GDP. Relative to the baseline, GDP falls by 1.1 percent in the case of defense spending and by 1.8 percent in the case of public investment.

4. **In both cases, the additional expenditure leads to a deterioration in the Government's budget balance.** This occurs not only because of the direct expenditure increase but also because of the additional debt servicing costs. The economy contracts as a result of the deterioration in the Government's budget balance. The additional Government debt 'crowds out' private investment, lowering the economy's capital stock and productive capacity.

5. The reduction in incomes as a result of a lower capital stock disproportionately affects poor households. A lower capital stock reduces the productivity of land and labor. In contrast, since capital has become scarce, its returns increase. Capital ownership is weighted toward richer households, so the reduction in their consumption is more muted than poor households. By 2030, the boost in public investment lowers the consumption of poor households by 2.6 percent and the boost in defense spending lowers it by 3.1 percent.

<sup>&</sup>lt;sup>125</sup> The cost of education has not been considered in the simulation, so these results can be interpreted as the upper end of possible effects.

<sup>&</sup>lt;sup>126</sup> The model probably ignores the social returns to human capital or human capital externalities. A number of papers show that a large concentration of higher skilled workers raises the wages of higher skilled workers modestly and it increases the wages of lower skilled workers even more Enrico Moretti 2010. Local Multipliers. *American Economic Review: Papers & Proceedings* 100: 1–7. doi=10.1257/aer.100.2.1.

<sup>&</sup>lt;sup>127</sup> The results of this simulation are sensitive to assumptions regarding productivity benefits of government investment. In this instance we assume (in the extreme) that an increase in government investment has no productivity benefits. The benefits of government investment need to be examined on a case-by-case basis using, for example, cost benefit analysis. Similarly, the benefits of better security and stability from defense expenditure has not been captured.

#### Adverse weather events

6. A drought disproportionately affects poor households since they derive most of their income from agriculture. The fall in agriculture productivity causes GDP to be around 5 percent lower in 2020.<sup>128</sup> The severe drought increases the price of agricultural products and lowers output from the agriculture industry. The fall in incomes causes consumption of poor households to fall by around 10 percent.

<sup>&</sup>lt;sup>128</sup> The adverse weather shock is proxied using a fall in agriculture productivity in 2020. A study by Brown et al. (2011) found that a 1 percent increase in the area of a country experiencing severe drought lowers GDP growth by 4–7 percent. Notably, this simulation does not capture any policies that alleviate the effects of drought on households (for example, foreign aid).

#### **Annex 3: SCD Consultations**

1. SCD consultations took place from September 19–23, 2016. The team had a total of 15 meetings with the staff from the Ministries of Planning, Mining, Agriculture and Livestock, Health, and Education; traditional leaders; parliamentarians; representatives from NGOs dealing with gender and leadership, budgetary oversight, and energy; private sector leaders; and staff from research institutions as well as representatives from bilateral and multilateral donor organizations. The team had the opportunity to visit a health center outside Niamey and an irrigation scheme in Niamey.

2. At each meeting, an overview summary of the SCD was presented,<sup>129</sup> along with the three core constraints identified: (a) low rural productivity; (b) limited human capital and high levels of vulnerability; and (c) poor governance resulting in limited business opportunities and inadequate service delivery. Discussions focused on the relevance of these constraints as well as on approaches on how to address them with propositions to rely more on interventions that directly reach citizens with money (cash transfers, e-vouchers) or information (alphabetization, agriculture extension, local health workers), relying more on technological innovations (mobile phones, solar) and approaches that align incentives with service delivery (results-based financing, private sector provision) or that can change people's behavior (early marriage, hygiene, sexuality, nutrition). The need to strengthen the capacity of the central state was stressed, particularly in priority areas (*ilots d'excellence*).

3. The consultations confirmed the various challenges Niger is facing, most of which are identified in the SCD summary. The need to 'modernize rural areas' was emphasized as was the criticality of irrigation and alphabetization. Population growth was mentioned often and related to the low quality of education (it is hard to keep up), the emergence of a landless class (40 percent in Maradi), and rapid urbanization (it leaves visible traces in Niamey).

4. Security, security of tenure, the recession in Nigeria, and the devaluation of the naira were emphasized. In spite of the many challenges Niger is facing, the consultations brought out the existence of ample opportunities in different domains. Private sector representatives pointed to the presence of many business development opportunities; research institutions confirmed the existence of productivity-enhancing technologies; and public sector officials confirmed how service delivery was improved through privately provided extension services (to onion producers) and pilots with results-based financing.

5. It was noted how there is a disconnect between policies (which are often well defined that is, 3N) and their implementation (which tend to lag behind), a disconnect that is often not due to the absence of funding but which is due to limited capacity and inadequate incentives. It was noted that addressing these challenges would require a gradual process that might take a long time to bear fruit. It was noted that in certain areas, centers of excellence already exist. The urgency of addressing implementation was recognized by the authorities as well as by partners. It is evidenced by the slow maturation of a number of large projects such as the Soraz oil refinery, the rails connecting Niamey to Benin, the Kandaji dam, the Imouraren uranium mine, and the Tahoua

<sup>&</sup>lt;sup>129</sup> All participants had received a summary of the SCD with the invitation to the meeting.

region coal project. Each of these projects take a long time to complete and yield little or no return (yet).

6. It was noted how there exists a joint responsibility (fewer pilots, more coordination) to ensure that implementation improves.

7. A number of salient points brought up during the consultations are described here.

#### **Public services**

8. The challenge that population growth poses for service provision was laid out by the Ministry of Education which demonstrated that to maintain attendance rates at the same level, each year an additional 3,000 classrooms have to be constructed and 3,500 teachers recruited. The low quality of education was also brought up. Low quality has many spillover effects, for girls in particular, who are pulled out from school (as they learn very little) and married off (50 percent of girls age 16 are already married). Low education quality was associated not only to reliance on inadequately trained teachers (often contractors but also to high levels of absenteeism and the fact that teaching is considered a job of last resort. The fact that parents themselves are not educated is a constraint as well, as is the fact that in many places it is not safe for a girl to walk to school (alone). Addressing the low quality of education would need to start with raising the level of education of teachers; hence, the urgency to invest in professional training. Improved school inspection, teaching in the local language, testing and retraining teachers, and greater reliance on information technology were also offered as approaches that could help improve quality.

9. In other meetings it was stressed how the education system was in urgent need of reform. "Already there is a lost generation that is seriously under-educated. At present things keep moving because the older generation is better educated. But what if they leave?" Urgent measures were needed, and even getting teachers from neighboring countries to temporarily make up the shortfall was on the table.

10. With respect to health, it was noted how marked progress had been made—particularly in reducing child mortality. Yet, overall the state of health remains problematic: high levels of population growth, high maternal mortality, high levels of malnutrition, low quality of services, unequal placement of staff (mostly based in Niamey), and inaccessible services (less than 50 percent of the population lives within 5 km of a health center) were all brought to the fore. It was pointed out that in certain areas, insecurity presents a major constraint (presence of Boko Haram).

11. It was recognized that much progress can be made through improved preventative health services delivered by commune health workers. These commune health workers should focus on behavioral change (a very conservative culture was identified as a major constraint) with respect to fertility, hygiene, nutrition, the treatment of simple diseases (like diarrhea), or the identification of cases in need of referral. Commune radio could complement this. Creating a system of commune health workers is a priority for the ministry, but bringing it to scale (some 20,000 workers are needed) is a challenge. Workers who are presently volunteers will need to receive a stipend to keep them motivated, creating incentives that might attract the better connected rather than the most suited. Supervision and a gradual rollout while learning lessons was recognized as key to success.

12. It was recognized that results-based financing has much potential to improve health services in facilities. Successful implementation will require investments in supervision and reliable mobile phone networks (for monitoring). Modern technologies also offer other opportunities to improve health services, for instance, by giving commune health workers the (electronic) tools to diagnose (e-health).

13. A strong case was made for improved coordination with other sectors, as access to safe water, transport, and (solar) electricity are all critical to a well-functioning health system. To this end, the Ministry of Planning was urged to strengthen its coordinating role. In a similar vein, the Ministry of Education was urged to improve the quality of education as the general level of education was perceived as a major factor holding back the quality of medical training.

#### Governance

14. A number of governance problems were brought to the fore, starting with a political class that is self-interested (*ils ne sont pas des bons patriotes*), focused on Niamey, and not renewing (the same people have been there for 25 years; continued reliance on service provision by the public sector). It was noted how a bureaucratic culture exists in which decisions are made by the 'chef' who use their position of power to extract personal benefits ('privatization of the public service'). As a consequence, people without adequate competencies get appointed and the bureaucracy itself becomes highly politicized. Priorities change and programs stop as soon as ministers change—which happens frequently. When controlling bosses are absent, units largely stop functioning.

15. The absence of a 'modern' Government with a clear vision that is being implemented was lamented. Reference was made to the Central Government as 'weak, a water head'. With reference to public education and its low quality and high levels of teacher absenteeism, but also to the fact that policies are implemented and quickly reversed (for example, forcing teachers out of Niamey to rural areas), it was suggested the Central Government may even be losing its relevance. Questions were raised about the objectives of the ongoing decentralization process and the likelihood of it succeeding. It was noted that decentralization seemed more driven by the desire to reduce the power of traditional chiefs than by the wish to improve the quality of service delivery at the local level.

16. Not all considered the state as weak and incompetent. Successful elections and the ability of the state to effectively prevent the presence of terrorist groups on its territory were mentioned. The ability of the military to wage war on three fronts (Mali, Libya, and Nigeria) was appreciated, along with the fact that this was done while upholding human rights: "Unlike others, the army of Niger takes prisoners." That slow bureaucratic procedures meant that some evidently innocent prisoners had to wait a long time to be released was considered an unfortunate result of a war waged by a state with low capacity.

17. Researchers stressed the presence of local knowledge and local institutional capital from which development activities could and should benefit. Emphasis was placed on participatory approaches and local initiatives (small-scale irrigation as opposed to large-scale; local water companies serving 3–5 villages). It was noted that traditional chiefs (some 20,000 in all) could present an important complement to the state. It was argued that 80 percent of the population is already governed by these leaders rather than by the representatives of the modern Government. It

was noted that the 'chefferie' has evolved over time, with many former civil servants now being chiefs. At the same time, it was recognized that there might be downsides to relying more on traditional chiefs, as in some areas they are instrumental to maintaining existing inequalities.

18. Reference was made to the low levels of trust between people and between people and their institutions: "There are too many conflicts, between people, between people and their institutions and too little readiness to collaborate for the greater good." Reference was equally made to the fact that society is changing rapidly, in the sense that individuality is on the rise (69 percent of the population is less than 25 years old), and the consequences this may have on an otherwise traditional society.

19. It was recognized that while local approaches should be strengthened, this will need to be done in a context where the overall functioning of the state is strengthened. Islands/poles of effectiveness, gradual approaches, and a focus on (continuous) education were brought forward as elements critical for such a transformation path. "Rapid solutions do not exist." Strengthening feedback loops and more flexible project design that can adapt to feedback was emphasized, as was the need to collaborate with independent researchers who could offer project teams honest feedback and critical thinking, even though this was not always appreciated.

20. With respect to accountability functions, members of parliament highlighted the difficulties they face playing their role. Limited access to information, party loyalty, and cultural obstacles (women have difficulty interrogating men in positions of power) limit the ability to hold the executive to account. It was noted how members of parliament lack funds which, in turn, limits their ability to hire staff or to carry out supervision missions: "When we want to supervise a project, we ask for petrol from the minister of the project we intend to supervise."

21. It was noted that parliament uses its powers not always effectively. Parliament approves the budget even though the budget fails to provide it with the means needed to do its job. Parliament approves all World Bank projects but fails to follow up and request information about implementation. Parliament can initiate laws, but this power is rarely used. Some of the parliamentarians seemed to have abandoned the idea of holding the executive to account altogether. Rather than trying to ensure that the executive implements activities effectively, they preferred to initiate developmental activities themselves—in their own constituencies that is. This helps them get reelected and to ensure "something tangible is left behind."

#### **Private sector development**:

22. It is evident that there is much unmet potential for private sector growth. There is only a 24 percent penetration rate of mobile phones; improved seed is not available in many markets; the flour mills are able to meet only 60 percent of local demand; there is much unmet irrigation potential; and the comparative advantage in meat and milk production is not exploited as abattoirs and milk producers have difficulty getting a steady supply (that is, promote sedentary livestock keeping). It was argued that a new geological survey would allow the country to diversify its (mining) products and producers. While the immediate relevance of mining for poverty reduction may be limited, the indirect impact through its contribution to revenue could become even more substantial than it already is. Less known is the fact that many small-scale gold miners are also active. The sector is quite large and could benefit from greater levels of formalization and support in their development. Presently much of the gold is illegally exported and levels of mechanization

are limited. The Ministry of Mines estimated the number of small-scale gold miners at 500,000; others put their number at closer to 200,000.

23. Constraints identified include a constrained business environment and a public sector that favors public sector execution over implementation by the private sector. More concretely, access to finance, complex tax requirements, and changes in taxes following the adoption of the budget were mentioned. The latter was well illustrated with the case of value added tax (*La taxe sur la valeur ajoutée*, TVA) which acts as a deterrent to purchase agricultural inputs locally. As most suppliers do not have a tax number, it is easier (and cheaper) to import as this way one is exempt from paying taxes. If one buys locally, one is forced to pay VAT (7 percent on inputs purchased!). To the participants, this illustrated how the state is incapable of implementing its own vision (in this case, agro-industrial transformation) in a coherent and consistent manner. Another illustration is the taxation of mobile phones as luxury goods (40 percent import tax), effectively putting mobile phones out of the reach of many consumers and hindering the expansion of mobile telephony. High tax rates now prevent higher tax collection in the future as growth is constrained.

24. A number of other constraints were identified: security of tenure around Niamey; limited coordination between private sector entities; the inability to collaborate well with the state and explore synergies (for example, extension services and seed production by smallholders); high cost of imports—due in part to informal payments; the inability of the professional training system to deliver what the market demands (we have enough accountants!); and the depreciation of the naira leading to the market being flooded with Nigerian products (animals for Tabaski, soft drinks).

25. A positive aspect was the investment code which all participants deemed very conducive to investment.

