

**Natural Resources, Poverty,  
Sustainability and  
Governance in Central Sahel**

*The Constraints and Challenges of  
Agricultural and Mining Resources*

By

**Rafael Aguirre Unceta**

**Natural Resources, Poverty, Sustainability and Governance in  
Central Sahel: The Constraints and Challenges of Agricultural and  
Mining Resources**

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# Table of Contents

<b>Chapter 1: Introduction and purpose of this book.....</b>	<b>1</b>
<b>Chapter 2: Agropastoral resources, scarcity, sustainability and conflict .....</b>	<b>7</b>
2.1 Agricultural constraints and food insecurity .....	7
2.2 Short-term responses to food insecurity by affected people, from national and external sources .....	12
2.3 The response to food crises: The case of Niger .....	18
2.4 Medium- to long-term policies .....	32
2.5 Environmental Challenges .....	57
2.6 Conflicts over resources: radicalisation and ethnicisation .....	62
2.7 Rural governance. Farmer-herder relations .....	69
<b>Chapter 3: The mixed consequences of the expansion of mineral resource extraction.....</b>	<b>78</b>
3.1 Gold mining's growing economic and employment weight .....	78
3.2 Fiscal contribution from mining, public social spending and human development indicators .....	81
3.3 The socio-economic impact of mining on local communities .....	86
3.4 Statistical analyses of some socio-economic impacts of artisanal mining (province of Poni, Burkina Faso).....	96
3.5 Environmental impacts of mining.....	109
3.6 Conflicts and violence over gold .....	114
3.7 Mining governance.....	119

<b>Chapter 4: Interactions between the two natural resource sectors, agriculture and mining</b> .....	131
4.1 Socio-economic benefits: Supplementary income from mining for vulnerable farming families .....	131
4.2 Competitive or complementary use of production factors .....	133
4.3 Land, water, and forest degradation.....	136
<b>Chapter 5: Recapitulative and conclusive remarks</b> .....	139
Common issues for both resource-based sectors .....	144
Bibliography Chapter 2.....	150
Bibliography Chapters 3 and 4 .....	174
<b>Notes</b> .....	195

## Figures and Tables

Figure 1. Per capita cereal production index (2014-2016 = 100)

Figure 2. Cereal yields (Kg/ha.) 2000-2022

Figure 3. Population in severe food insecurity (levels 3-5 of the *Cadre harmonisé*) 2014-2024

Figure 4. Chronic malnutrition (stunting): % of children under 5

Figure 5. Niger. Cereal production and demographic growth between 2001 and 2023

Figure 6. Population of the 3CS countries: evolution and projections for 2050 (millions of people)

Figure 7. Trends in social spending 2010 -2022 (as % of GDP)

Figure 8. Human development index (HDI) progress 2000-2022

Figure 9. Cereal production and yields(maize) in the province of Poni

Figure 10. Dropout and completion rates in primary education in Poni and nationwide

Figure 11. Number of declared dropouts due to *orpaillage* in regions where artisanal mining is most prevalent and nationwide

Table 1. Poverty trends in Poni municipalities

Table 2. Cereal production and yields in Poni and nationwide

Table 3. Number of food-vulnerable people in Poni and nationwide

## List of Acronyms

ACLED, Armed Conflict Location & Event Data

AETR, Average Effective Tax Rate

ANEEMAS, Agence nationale d'encadrement des exploitations minières artisanales et semimécanisées (Burkina Faso)

APFR, Attestation de Possession Foncière Rurale (Burkina Faso)

CILSS, Comité permanent Inter-Etats de Lutte contre la Sécheresse dans le Sahel

CPI, Transparency International's Corruption Perceptions Index

CRENI, Centre de récupération et d'éducation nutritionnelle

CSR, Corporate Social Responsibility

DNPGCA, Dispositif national de prévention et gestion des crises alimentaires (Niger)

ECHO, European Commission Humanitarian Office

ECOWAS, Economic Community of West African States

EHCVM, Enquête Harmonisée sur les Conditions de Vie des Ménages

EICVM, Enquête Intégrale sur les Conditions de Vie des Ménages

EITI, Extractive Industries Transparency Initiative; ITIE, Initiative de Transparence des Industries Extractives

ESIA, Environmental and Social Impact Assessments

FAO, Food and Agriculture Organisation

FAO-Aquastat, FAO's Global Information System on Water and Agriculture

FAOSTAT, Food and Agriculture Organisation Statistics Division

FEWSNET, Famine Early Warning Systems Network (USAID)

FMDL, Fonds Minier de Développement Local (Burkina Faso and Mali)

FMNR, Farm Managed Natural Regeneration

GGW, Great Green Wall

GIABA, Groupe Intergouvernemental d'Action contre le Blanchiment d'Argent en Afrique de l'Ouest

GLA, Global Land Alliance

HACP, Haute Autorité à la Consolidation de la Paix (Niger)

HDI, Human Development Index

HEA, Household Economic Analysis

ICG, International Crisis Group

ILO, International Labour Organization

INS, Institut National de la Statistique (Niger)

INSD, Institut national de la statistique et de la démographie (Burkina Faso)

INSTAT, Institut National De La Statistique (Mali)

IPC, Integrated Food Security Phase Classification

IPCC, Intergovernmental Panel on Climate Change

ISGS, Islamic State in the Greater Sahara

ISWA, Islamic State in West Africa

JNIM, Jama'at Nasr al-Islam wal Muslimin (Support Group for Islam and Muslims)

LGAF, Land Governance Assessment Framework

LDCs, Less Developed Countries

LSMS, Living Standard Measurement Studies

MSF, Medecins sans Frontieres

OCHA, UN Office for the Coordination of Humanitarian Affairs

ODA, Official Development Assistance

OECD, Organisation for Economic Co-operation and Development; OCDE, Organisation de coopération et de développement économiques

OCDE/CSAO, Club du Sahel et de l'Afrique de l'Ouest

OIE, Office International des Epizooties

ORFAO, Observatoire Régional du Foncier Rural en Afrique de l'Ouest

PRAPS, Projet Régional d'Appui au Pastoralisme au Sahel

RESSAKS, Regional Strategic Analysis and Knowledge Support System

RPCA, Réseau de Prévention des Crises Alimentaires au Sahel et en Afrique de l'Ouest

RGPH, Recensement Général de la Population et de l'Habitat

SAP, Système d'Alerte Précoce

SDG, Sustainable Development Goals

SLM, Sustainable Land Management

SMART, Standardized Monitoring and Assessment of Relief and Transitions (malnutrition)

SSA, Sub-Saharan Africa

SVPP, Services Vétérinaires Privés de Proximité

TLU, Tropical Livestock Unit

UIS-UNESCO, UNESCO Institute for Statistics

UNCCD, United Nations Convention to Combat Desertification

UNDP, United Nations Development Programme

UNEP, United Nations Environment Programme

UNICEF, United Nations International Children's Emergency Fund

UNODC, United Nations Office on Drugs and Crime

USAID, United States Agency for International Development

VDP, Volontaires pour la Défense de la Patrie (Burkina Faso)

WAEMU, West African Economic and Monetary Union

WDI, World Development Indicators

WFP, World Food Programme

WGI, World Governance Indicators

WHO, World Health Organization

WOAH, World Organisation of Animal Health (founded as OIE, Office International des Epizooties)

**Frequently used in this book:**

**3CS**, Three Central Sahel countries (Burkina Faso, Mali and Niger)

**ASM**, Artisanal and Small-scale Mining

ASM is characterised by its reliance on manual labour, low capital investment, and often informal or unregulated practices. This sector is primarily engaged in gold extraction in the 3CS countries. It is very heterogeneous, ranging from diggers (*creuseurs* in French) who work under conditions quite like those of salaried employees, to independent miners relying on familiar or collaborative work, or to small investors/employers who use more mechanised mining methods and may have formalised status through licenses.

# Chapter 1

## Introduction and purpose of this book

The Sahel is an ecoclimatic region located south of the Sahara Desert, stretching from Senegal to Sudan. This book focuses on three landlocked countries in the central part of the Sahel: Burkina Faso, Mali, and Niger, collectively referred to as the '3CS' (Three Central Sahel) countries. The Sahel is characterised by very arid conditions, with annual rainfall ranging from 250 to 600 mm in the northern sector, gradually transitioning to the more humid areas of the Sudanese savannah in the south.

This region serves as a transition zone from desert environments, where agriculture is largely unviable, to areas suitable for pastoralism, and further south where rainwater harvesting can be practiced. However, both herding and farming are highly susceptible to changes in weather and the risk of drought. These challenging conditions often lead to national food shortages and acute hunger affecting large segments of the population.

In addition to dealing with difficult climatic conditions and limited agricultural resources, the three countries face significant socio-economic challenges. According to the Human Development Index (HDI) estimates from the United Nations Development Programme (UNDP, 2025), all three countries rank at the bottom globally, with HDI levels for 2023 at: Burkina Faso (0.459), Mali (0.419), and Niger (0.419). These figures fall below both the sub-Saharan average (0.568) and the average for least developed countries (0.560). While these countries have experienced high

rates of demographic growth, there has been a moderate decline in recent years. A large portion of their population still lives in rural areas, where poverty is widespread and about three times more common than in urban centres. The precarious conditions of agricultural livelihoods contribute significantly to this situation.<sup>1</sup>

Although there has been an overall trend towards poverty reduction in these countries over the century, particularly between 2010 and 2018, poverty levels have increased slightly in recent years within the 3CS countries.<sup>2</sup>This recent trend has undoubtedly been influenced by the expansion of jihadist terrorist activities, which have disrupted productive activities and people's livelihoods in many areas for several years<sup>3</sup>. Rising prices of basic commodities and the 3CS countries' weak social protection systems, especially during the COVID-19 shock, have exacerbated people's vulnerabilities.

In addition to addressing constraints on their agropastoral resources, the 3CS countries have sought to develop another type of natural resource: mineral extraction (or oil). Although uranium mines in Niger and gold mines in Mali have been exploited industrially for some times, the last two decades have seen significant developments in this resource-based sector. Gold extraction has rapidly expanded across all three countries. In Mali, industrial gold mining has increased significantly, and it has grown even more quickly in Burkina Faso. Artisanal gold mining, a tradition in the region for centuries, has also seen considerable development. High poverty rates, unemployment, and the difficulties of making a living from agriculture are key factors driving this gold rush. Some estimates suggest that total artisanal gold production in the three countries is nearly equivalent to that

of the mining industry. Additionally, oil extraction has begun in Niger, with investments made for its export, while uranium mining is attracting renewed interest.

The two resource-based sectors—agropastoral and mineral—have significant but differing macroeconomic implications. Agriculture accounts for approximately 40% of GDP and around 70% of employment in Mali and Niger, but less so in Burkina Faso, where it represents approximately 20% of GDP and 30% of employment. The mining sector is vital for Burkina Faso and Mali, contributing around 75% of total exports and largely replacing cotton exports that dominated earlier in this century. Mining, primarily gold, also significantly contributes to public revenues in both countries, accounting for between 20% and 30% of total revenues. In Niger, the extractive sector (uranium and oil) has a lower macroeconomic weight, contributing 37% of exports and 19% of total revenue in 2022. The growing artisanal gold mining production in Niger is largely informal, so its contributions are not reflected in official statistics.

The trends discussed—persistent agricultural crises, mining expansion, and slow social progress—have occurred within a context of heightened political instability in the 3CS countries over the last fifteen years. Between 2010 and 2020, there were military coups (in Niger and Mali) and popular uprisings against power (in Burkina Faso), alternating with periods of elected governments. This instability has also included terrorist actions by jihadist groups, which have multiplied their attacks and expanded territorial control, particularly in Mali and Burkina Faso. In a climate marked by civil insecurity and discontent, successive

coups since 2020 in Mali, 2022 in Burkina Faso, and 2023 in Niger have consolidated the military's grip on power.<sup>4</sup>

The military has used the civilian government's ineffective response to terrorism and widespread corruption to justify its takeovers. In counterterrorism efforts, the military has shifted from previous support by the UN, West African, and European forces to closer cooperation with other foreign entities, notably the Russian Wagner Group and its successor, Africa Corps. However, the results over recent years have been disappointing. The military juntas and their new foreign supporters have been unable to reverse the growing insecurity, which has worsened in Mali and Burkina Faso. According to a recent publication by ACLED (Nsaibia, 2024a), the reported conflict-related fatalities in the three countries during the first half of 2024 (7,620) were higher than in the corresponding periods of 2023 (by 9%), 2022 (by 37%), and 2021 (by 190%). It is important to note that many of these deaths are civilian casualties caused by both terrorist groups and state forces, as well as their external supporters.

The situation regarding corruption has not improved under the military governments, which is unsurprising given that the defence and security sectors of these countries have long been considered among the most vulnerable to corruption (Steadman, 2020)<sup>5</sup>. Transparency International's Corruption Perceptions Index (CPI) has worsened for Mali and Burkina Faso between 2020 and 2024. The World Governance Indicators (WGI, World Bank) estimate of 'control of corruption' has declined across all three countries from 2019 to 2024. Simultaneously, political repression of dissent has intensified, resulting in arbitrary arrests of civil society members and dissenting personalities.

The expansion of territorial control and armed actions by jihadist terrorist groups has had dire consequences for the Sahelian societies involved. These groups hinder the cultivation and marketing of cereals, restrict pastoral activities, and cause large-scale population displacements, significantly increasing food insecurity in recent years. The jihadists have also extended their presence to several artisanal gold mining sites, allowing them to boost their funding. Their interventions have exacerbated conflicts over resource access, which are frequent in both agriculture and mining.

Eliminating terrorist attacks and threats, ensuring basic civil security, and achieving political stability based on genuine citizen participation are essential prerequisites for effectively addressing the development challenges in the three countries. However, in addition to these political factors, progress of these nations will also depend on their ability to utilise available resources effectively. Alongside other key issues, such as the development of their human capital, the sustainable exploitation of their natural resources — both renewable (agriculture) and extractive — are critically important.

This book focuses on the use of natural resources in the three Sahelian countries, examining their effects and prospects. These nations face significant ecological challenges concerning their renewable natural resources—land, water, and biomass—which are essential for food production. The non-renewable natural resources available, particularly minerals, can provide economic benefits to the country and some of its people, but they also pose serious environmental risks. Both resource-based sectors (agriculture and mining) operate within a context of prevalent

high poverty in the countries; this adds new constraints to food production and makes artisanal mining a means of escape from socio-economic precarity. The governance of the two types of natural resources raises important issues, as does the management of conflicts related to their competitive access. The environmental impact and sustainability of exploiting both natural resources are common and major concerns.

The productive and social interactions between the two resource-based sectors are complex and often contradictory. Agriculture and mining, particularly the extractive artisanal model, compete for access to land and other critical production factors. On one hand, artisanal mining can serve as a crucial livelihood diversification strategy for poor farming families. For its part, industrial mining provides public revenue, which, under adequate governance, can improve social services for the rural population. On the other hand, the environmental costs of mining, both artisanal and industrial, can be severe and long-lasting for agricultural activities.

The various issues and dimensions outlined above are discussed throughout the different chapters and sections of this book, which encompasses both resource-based sectors in the three countries (Chapter 2: Agropastoral Resources and Chapter 3: Mineral Resource Extraction). Chapter 4 attempts to synthesise the complementary or conflicting interactions between mining and agriculture. Finally, some recapitulative and global concluding remarks (Chapter 5) are presented.

## Chapter 2

# Agropastoral resources, scarcity, sustainability and conflict

### **2.1 Agricultural constraints and food insecurity**

Much of the land in the three Sahelian countries is not suitable for agriculture. In Mali and Niger, only 35-36% of the territory is used for pastoral or cultivation purposes (46% in Burkina), although this often occurs on land of inferior quality. Livestock activities have traditionally been concentrated in the most arid areas, with north-south periodic movements in search of seasonal pastures. Crop production (cereals in particular) and fodder availability are subject to substantial natural risks (poor/irregular rain, locust pests, etc.). When these risks materialise, they can seriously affect rural communities' harvests and lead to food insecurity for a significant part of the population. Despite some irrigation development (especially in Mali, under the public agency *Office du Niger*), rain-fed agriculture remains the predominant provider of food and the origin of potential food deficits. Some of these deficits, together with fodder shortages, have occurred during the current century (cropping/marketing seasons 2004/05, 2009/10, 2011/12, 2021/22). Following these recurrent crises, many vulnerable households have seen their meagre productive resources dwindle, thus becoming market-dependent. When prices rise, notably during the lean season, their very low purchasing power makes it impossible for them to acquire cereals. These households, with precarious access to land, must adopt

harsh coping strategies to survive or rely on food aid. A growing number of them have tried to escape their impoverished situation by mining for gold with low-tech tools in areas where the metal has been discovered. When examining the expansion of this non-farm alternative activity in rural areas (see section 3.3 and chapter 4), the potential negative impact on food production is discussed.

Rapid population growth is also affecting food sufficiency. Although the cultivated area and production have significantly increased in the current century, the *per capita* cereal production reflects unfavourable trends. It has risen in the past in Mali, but has recently decreased<sup>6</sup>. Burkina Faso and Niger continue to show a decline (Figure 1). These trends may become more acute in the future, as it will be more difficult to increase production further, given the scarcity of minimally fertile new arable land (the 'closing of land frontier'). Various other constraints, including climate change, outdated farming practices, and high irrigation costs, hinder the potential improvement of current low yields<sup>7</sup>(Figure 2).

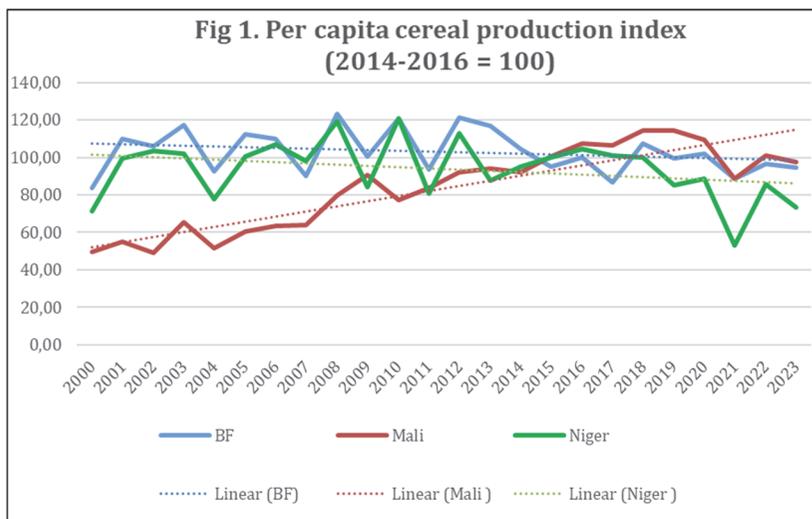
As population pressures mount, farmers have expanded cultivation onto marginal soils, increasing labour intensity on smaller plots and often resorting to unsustainable agricultural practices, such as reducing or abandoning fallow periods. This expansion, frequently encroaches on traditional grazing areas or transhumant corridors, intensifying conflicts between farmers and herders. The significant increase in herds, their proximity and eventual invasion of cultivated fields, has compounded the problem (see section 2.6). Access to and sharing of resources between their various users, primarily farmers and herders, is governed by legal national regulations. However, poor enforcement and monitoring of these regulations, which often

conflict with traditional practices, combined with increasing resource scarcity and underlying ethnic tensions, have resulted in violent conflicts in recent times. The uncertainty surrounding which principles should prevail – modern statutory laws or customary practices – along with the limited capacity of the local bodies responsible for managing conflicts, often hinders their resolution. It has been observed that these local bodies often favour resident farmers over moving herders (Bisson et al., 2021).

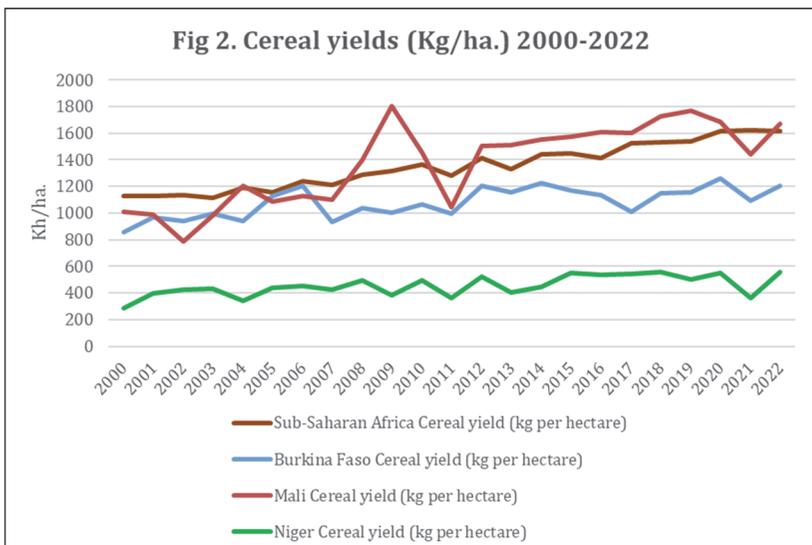
In certain regions of the Sahel, severe land degradation—both natural and human-induced—has led to chronic low yields and poor harvests, worsening poverty levels. Even in years with good national harvests, local food deficits may persist, making it difficult for vulnerable populations to access adequate food. Furthermore, civil insecurity has become a critical and harmful factor in recent years. Jihadist attacks in some areas have disrupted cereal cultivation and marketing, limited grazing activities, and caused significant population displacement. Furthermore, the presence of jihadist groups has intensified traditional conflicts over access to agro-pastoral resources, further impacting agricultural production. The regions most affected by the terrorist presence are those surrounding Lake Chad (belonging to Nigeria, Chad, Niger, and Cameroon) and the region of the Liptako-Gourma, also known as the 3 Borders (shared by Mali, Burkina Faso, and Niger) <sup>8</sup>. However, jihadist organisations have been expanding their operations into other regions of the 3CS countries and even into neighbouring countries to the south, such as Benin, Togo and the Ivory Coast.

A combination of factors, including chronic local food deficits, jihadist violence, intercommunity conflicts, and rising prices, has

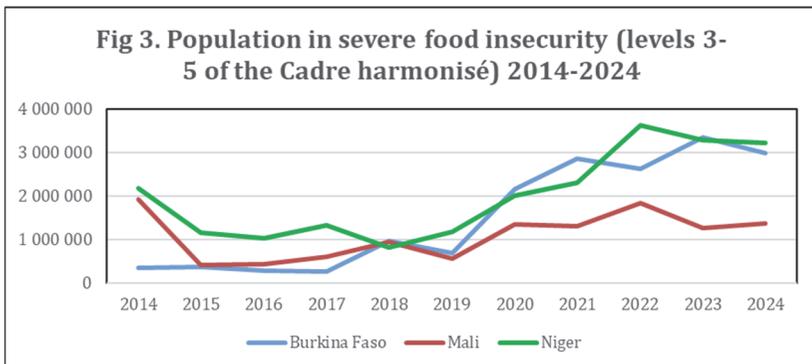
worsened food shortages. Recently, erratic rainfall patterns led to cereal deficits in several areas in 2021, particularly in Niger. Despite relatively satisfactory annual national harvests in subsequent years, the number of people facing severe food insecurity during the lean season has remained very high in the three countries (see Figure 3). According to estimates from the Food Crisis Prevention Network and FEWSNET, this number may have exceeded 5.9 million during the 2025 lean season<sup>9</sup>.



Source: FAOSTAT (Food and Agriculture Organisation Statistics Division)



Source: FAOSTAT



Source: Food Crisis Prevention Network (RPCA), 2024

## **2.2 Short-term responses to food insecurity by affected people, from national and external sources**

The first responders to food shortages are the affected households themselves. They adopt a variety of coping strategies, ranging from simple measures to more significant actions. Simple measures may include reducing the number of meals eaten, consuming forest fruits, selling wood or crop residues, engaging in petty trading, and taking casual labour when available. More substantial actions may involve engaging in artisanal mining or migrating to urban areas. In some places, households may benefit from cultivating irrigated off-season crops or maintaining community reserves, such as cereal banks. However, under-resourced households may resort to negative coping strategies, like selling productive assets (land, animals, etc.), which can increase their vulnerability in the future. As food scarcity worsens and community resources diminish, external assistance becomes increasingly necessary. A significant challenge is to provide this aid effectively.

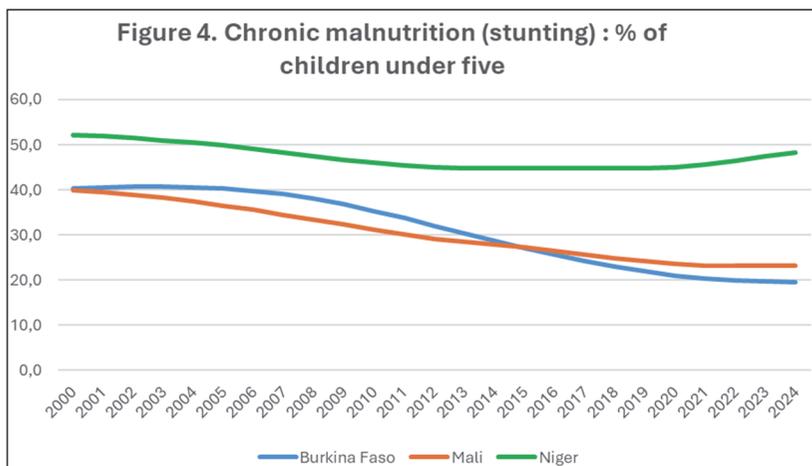
The fact that many populations in the Sahel have faced food insecurity for decades has transformed the approach to food aid, which was previously viewed as short-term relief through the distribution of cereals or other basic commodities. To create a more sustainable solution for food-insecure populations, short-term interventions should focus on lasting impacts and anticipate future shocks. This shift has led to the incorporation of resilience objectives in food aid, which involves identifying ways to restore and strengthen the livelihoods of affected households. Such an approach addresses immediate needs while also helping households recover their productiveness after experiencing a

shock. Implementing this requires considerable effort and resources, and urgency often poses a constraint. Another critical issue that has gained attention is how to effectively target those communities and families that should be prioritised for assistance.

The governments of the 3CS countries have established annual plans to respond to different degrees of food insecurity. As the main instruments, these plans include information and warning systems, cereal stockpiles for sale at reduced prices or free distribution during lean seasons, provision of animal feed to herders, and food or cash allowances in exchange for rural public works by beneficiaries. However, government responses often fall short because of logistical challenges, funding issues, and delays, resulting in a reliance on foreign assistance. The nature of this assistance has evolved over time, shifting from predominantly in-kind aid, often drawn from donor countries' agricultural surpluses, to supporting recipient governments in addressing food emergencies, including building up reserve stocks. Whenever possible, these stocks are sourced from the purchase of local or regional cereal production. A key channel for international assistance is the funding of programs by organisations such as the WFP, USAID, UNICEF, ECHO<sup>10</sup> or several NGOs, with the support of their local partners.

A growing number of support initiatives from these international organisations are now in the form of cash transfers. This approach is particularly effective if the beneficiaries can purchase cereals or other foodstuffs from local markets. Cash transfers are quicker and easier to mobilise, and they can stimulate sales by local producers.

Humanitarian organisations are also actively combatting child malnutrition. Their efforts are especially intense during the lean season when undernutrition rates peak, while operations continue year-round. Preventive measures, such as 'blanket feeding', involve distributing food supplements to specific vulnerable groups, including children under five and pregnant or lactating women. When acute malnutrition is identified, curative actions are implemented through outpatient recovery centres located within health facilities. In cases of severe malnutrition, children are usually admitted to Intensive Nutritional Recovery Centres (CRENIs - *Centres de récupération et d'éducation nutritionnelle intensive*). This type of support requires close collaboration between humanitarian organisations and local health services<sup>11</sup>.



Source: UNICEF-WHO-World Bank, Joint Child Malnutrition Estimates

There is a growing recognition of the regional aspect of food security. This involves not only specialised institutions like CILSS (*Comité permanent Inter-Etats de Lutte contre la Sécheresse dans le*

*Sahel*) but also the regional integration body ECOWAS (Economic Community of West African States). At both regional and national levels, shared information and early warning systems have been developed, alongside enhanced inter-country cooperation initiatives such as the Food Crisis Prevention Network (RPCA, *Réseau de Prévention des Crises Alimentaires*). While still modest, recent efforts have begun to build a regional food reserve, and minimal coordination criteria for national food stocks have been put in place.

Several organisational factors—such as the quality of available information, degree of coordination among actors, and timeliness of response—affect the success of food security initiatives. The availability of financial, logistical, and physical resources is also essential. Furthermore, methodological and practical issues, such as accurately targeting the most vulnerable populations and addressing structural hardships like loss of productive capacity, have become important.

There has been considerable effort to enhance information systems at regional and national levels to prevent food crises. However, problems can arise from other underlying causes. Support from domestic and foreign sources must be complementary and well-coordinated. To achieve this, national response plans must integrate actions and funding from all sources. International organisations have their own financing and operational channels, even if they are formally included into national plans. During past crises, coordination and synergies between domestic and foreign-funded interventions have often been lacking due to time constraints and insufficient national leadership (CILSS-RPCA, 2018). Achieving the right balance between respect for national

sovereignty and the urgency of a timely response is not easy. Delays in initiating food assistance actions, while less harmful than in past crises, can still have irreversible effects on vulnerable families.

The methods and criteria used to select the communities and families most in need of aid present a critical challenge. There has not been sufficient harmonisation in this sensitive and complex targeting exercise. Instances of hasty and recurring practices in selecting recipient areas or communities have been observed in the past, sometimes influenced by sociopolitical factors. Moreover, the conventional targeting processes are generally not well-suited to pastoral communities (Leturque et al., 2019). As a result, aid distribution may become unbalanced, neglecting the population groups at the highest risk. The consequences may also include a perception of suspicion and limited acceptance within the assisted community regarding the selective distribution of assistance (Escot, 2018).

The scope of assistance modalities is also crucial. When hardship stems from structural causes that persist year-round, it cannot be adequately addressed by short-term food aid during the lean season; differential resilience support is necessary. This type of support initiative is still being developed in the Sahelian countries. It combines food and nutrition immediate relief with the provision of resources and assets (such as seeds, fertilisers, feed, small animals, etc.) or cash to acquire them, along with technical advice. This approach enables beneficiaries to reactivate or diversify their farming production. In some cases, assistance can also promote off-farm activities to generate complementary income. Implementing collective projects that enhance farming or grazing

conditions (like soil restoration, water harvesting, and forestry) is another viable option; the World Food Programme-Food for Assets plan is adopting this approach (WFP/World Food Programme, 2018).

In the already very harsh Sahelian context, the effectiveness of the response plans to food insecurity has recently been further compromised by several adverse developments. Three key issues stand out: the growing presence of terrorists in many areas, the consequences of military coups, and a significant reduction in funding from key international donors.

In conflict-affected regions, abandoned lands, disrupted transhumance movements, perturbed supply markets, and the presence of refugees and displaced persons exacerbate food deficits and may exhaust the resilience of affected communities. Furthermore, food assistance in these areas is limited by restrictions on transport and movement imposed by security forces, with which coordination is often difficult. Humanitarian organisations have attempted to maintain their operations in these regions but have faced various obstacles, including attacks on their staff and the looting of their properties.

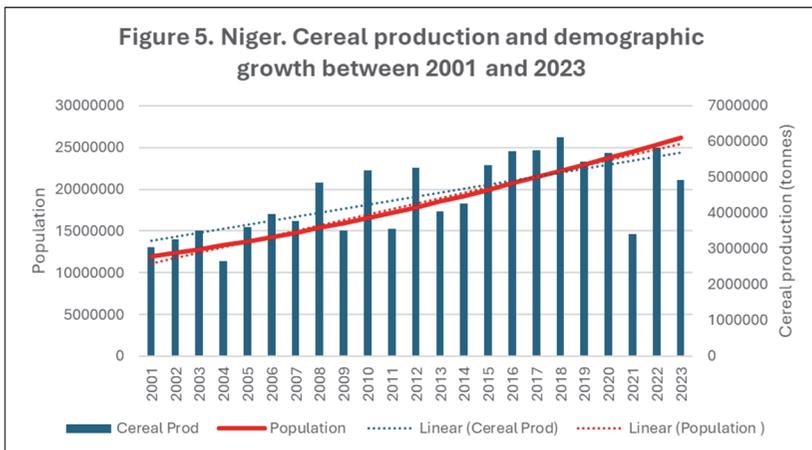
Military regimes have fostered a climate of distrust towards certain foreign aid organisations, negatively impacting public perception of them (Insecurity Insight, 2025). These regimes' unique management approaches may impact the effectiveness in addressing food and nutritional insecurity. Coordination challenges between national and international actors may worsen. The break between the 3CS military governments and the regional organisation ECOWAS, along with its customs union agreement,

could also impact trade with neighbouring countries, potentially leading to higher prices for some imported foods (Resnick, 2025).

Another serious issue is the lack of financial resources to meet the extensive need for food assistance. According to data from the RPCA, the average level of financial execution of national response plans varied between 50% and 70% during the period 2018–2022, depending on the country (RPCA, 2023). A large proportion of the allocated funding came from foreign aid<sup>12</sup>. This situation could deteriorate significantly. The sharp decline in budgets managed by the WFP and USAID, following decisions from several donor governments (notably the USA), has posed difficult challenges to tackling food insecurity in the 3CS countries and Nigeria in 2025 (WFP, 2025)<sup>13</sup>.

### **2.3 The response to food crises: The case of Niger**

Niger has been hit particularly hard by recent food crises. According to national vulnerability surveys, 30–50% of its population faced food shortages during the agricultural production-marketing cycles of 2004/05, 2009/10, 2011/12, and 2021/22. Figure 5 illustrates the annual harvest of cereals (millet, sorghum, rice, maize, and *fonio* millet) from 2001 to 2023. There is a notable decrease in production during the years 2004, 2009, 2011, and 2021. The figure also highlights a gap between the increase in cereal production in Niger and the growth of the country's population over the examined period.



Source: Niger, Institut national de la Statistique, *Annuaire Statistique*

This section will detail the key features of the four crises mentioned, along with the conditions under which domestic and international actors addressed them. The aim is to explain how shortcomings in the approaches, actions, and methods used to respond to these crises were gradually addressed.

### 2004/2005

A combination of drought, irregular rainfall, and infestations of locusts and other pests led to a severe deficit in the 2004 cereal harvest, equivalent to 20% of the country's cereal net consumption requirements. Adverse rainfall and pests also significantly impacted pastures, resulting in a 36% deficit in fodder necessary for livestock. Another critical factor was the dramatic doubling of cereal prices during the first half of 2015. Information and warning systems were unable to detect the socio-economic vulnerability of many households and the widening gap between their purchasing power and food costs. Furthermore, the food security information

system at that time focused solely on biophysical aspects, neglecting nutritional indicators, despite alarming signs of child malnutrition reported in villages and Intensive Nutritional Recovery Centres (CRENIs).

The initial analysis of the crisis was flawed, with an underestimation of the cereal stocks required to meet the population's needs and a slow mobilisation of these stocks. The national reserves had limited volumes available, making it challenging to procure cereals from regional markets, particularly from Nigeria, which had been a regular supplier, but where prices had surged. Additionally, in violation of regional free trade agreements, neighbouring countries such as Burkina Faso and Mali banned the export of cereals to Niger.

Delays in the implementation of response actions by both national and international actors compounded the situation, reflecting a significant lack of understanding and coordination among them. A joint entity for national food security had previously been created in Niger, with the involvement of the government and international donors (*Dispositif National de Prevention et Gestion des Crises Alimentaires*, or DNP-GCA). However, disagreements emerged regarding the severity of the situation and the urgency of the response. The government attempted to downplay the risks of mass starvation reported in international media. Humanitarian organisations, such as *Médecins Sans Frontières* (MSF), were deeply concerned about widespread child malnutrition, while the World Food Programme (WFP) and development actors tended to adhere to the framework agreed with the government. This disparity in urgency was coupled with inadequate national public response capabilities.

In August 2005, a large-scale food distribution was conducted after emergency procurement from international markets. By this time, the critical lean season was already well underway. This distribution aimed to reach 2.5 million people and was primarily funded by external resources, with the WFP playing a key role, while the national *Dispositif* took a secondary position. Due to the pressing nature of the situation, the operation was hastily organised, resulting in a certain degree of improvisation. Some observers (Olivier de Sardan, 2007) noted that there was significant disarray in the distribution efforts. The WFP acknowledged gaps in targeting the most vulnerable areas and communities (WFP, 2006). Assistance provided to pastoralists facing severe fodder shortages was poorly organised. However, MSF, UNICEF, WFP, and several other NGOs gradually addressed delays in responding to child malnutrition. During the latter half of 2005, over 320,000 children received care at nutritional intensive recovery centres or benefited from 'blanket feeding' in their communities.

The 2005 crisis highlighted the need for substantial changes to the strategy for addressing food insecurity. Information systems should include indicators and analyses related to nutritional status and household poverty conditions. Furthermore, operational response capabilities should be equipped with sufficient physical stock to effectively address food crises. Coordination and alignment of approaches among stakeholders become crucial at the organisational level. During the crisis, the necessity of addressing both cyclical and structural factors in tackling food insecurity was emphasised, along with the interconnectedness of emergency response, resilience, and development (Michiels et al., 2008). The crisis also underscored the importance of carefully