



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 07-Feb-2023 | Report No: PIDC34749



BASIC INFORMATION

A. Basic Project Data

Country Niger	Project ID P179276	Parent Project ID (if any)	Project Name Agriculture and Livestock Development Project (P179276)
Region WESTERN AND CENTRAL AFRICA	Estimated Appraisal Date May 15, 2023	Estimated Board Date Jun 15, 2023	Practice Area (Lead) Agriculture and Food
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Planning	Implementing Agency Ministry of agriculture	

Proposed Development Objective(s)

The proposed Project Development Objective (PDO) is to increase productivity, commercialization, and climate resilience of the agri-food sector in the project areas.

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	350.00
Total Financing	350.00
of which IBRD/IDA	350.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	350.00
IDA Credit	350.00

Environmental and Social Risk Classification
Substantial

Concept Review Decision
Track II-The review did authorize the preparation to continue



Other Decision (as needed)

B. Introduction and Context

Country Context

1. Niger has a poorly diversified economy, highly dependent on agriculture and vulnerable to external shocks, especially climate-related shocks. This is reflected in a volatile growth trajectory that ranged between 1.4 percent and 10.5 percent from 2011 to 2021. As growth has been associated with limited improvements in productivity and with high population growth (averaging 3.9 percent over 2010-19), per capita GDP remains at US\$593.5 in 2021, towards the bottom of the world's income distribution. Over 50 percent of the population lives in extreme poverty (of which 95 percent are in rural areas), aggravated by gender disparities. Niger's Human Development Index for 2021 was 0.4— which ranks the country 189 out of 191 countries. Niger also ranks 155 out of 157 countries in the Human Capital Index, with 80 percent of the adult population remaining illiterate and life expectancy at birth estimated at about 62 years.
2. A combination of health, climate, and security shocks and crises has hampered the recent growth of Niger's economy. After an economic growth of 5.9 percent in 2019, the poor performance in 2021 (1.4 percent) was due to the slowdown in cereal production, showing a great vulnerability of the economy to the risks associated by its reliance on rainfed agriculture. The war in Ukraine and the subsequent terms-of-trade shocks are expected to have a small impact on the overall economic growth, but it disproportionately affects the poor by deteriorating the existing food security crisis. These effects of the war on the poor stem from increasing energy, fertilizer, and food prices. Despite the high degree of uncertainty, growth could reach 10 percent by 2024 thanks to the country's boom in oil production.
3. Food and nutrition insecurity is a major concern for Niger. Rapid population growth, combined with persistent low agricultural productivity, climatic change and environmental degradation is exerting unsustainable pressure on food supplies. Food insecurity peaks in the lean season (June to August), when farmers wait for the annual season crop harvests. The food security data from the regional Harmonized Framework (March 2022) showed more than 4.4 million people at high risk of food insecurity during the 2022 lean season. Data from November 2022, following a very good agriculture season, shows more than 2.8 million people are estimated to be at high risk of food insecurity during the 2023 lean season. Malnutrition is also widespread, especially among children. Niger's global acute malnutrition is estimated at 12.7 percent, and 42 percent of children under 5 years are stunted. Several factors contribute to Niger's food and nutrition insecurity, including high fertility rates, low agriculture and livestock productivity, land degradation and desertification, climate change and extreme weather events, and more recently, conflicts affecting farm activities.
4. Niger is exposed to multiple risks of fragility, conflict, and violence. Transnational security threats have increased considerably in recent years, with spillover effects and attacks by non-state armed groups on the borders with Mali and Burkina Faso in the south-west (Tillabéri and Tahoua regions), in the Lake Chad area bordering Nigeria, and Chad in the east (Diffa region). In the eastern region bordering Lake Chad and Nigeria, the Boko Haram insurgency has created a security threat and humanitarian crisis for the country. Niger has also faced endogenous crises and conflicts, including armed group and intra- and inter-community clashes which have forcibly displaced civilians. The country is grappling with an influx of refugees fleeing conflicts in Nigeria and Mali. As of August 31, 2022, the United Nations High Commissioner for Refugees (UNHCR) had identified 294,467 refugees and almost 350,000 displaced persons in the country.
5. Climate change will further exacerbate Niger's current vulnerabilities, with the potential to deepen persistent economic and human development and spatial disparities especially for those whose livelihoods rely on the agri-food



sector. The World Bank Group Country Climate and Development Report (CCDR 2022) for the G5 Sahel Region highlighted Niger as one of the most vulnerable countries in the world to more extreme droughts, floods, heatwaves, and desertification. Niger ranks among the top ten most vulnerable countries to climate change. Compared to a medium-growth baseline, by 2050, climate change is estimated to reduce Niger's annual GDP by 2.2 percent under the wet and optimistic climate scenarios and by 11.9 percent under the dry and pessimistic climate scenarios. As 95 percent of the poor live in rural areas and 80 percent of the working population is employed by the agriculture sector, climate change disproportionately affects the poor and vulnerable. By supporting the development of a sustainable and resilient agri-food sector, a positive and direct effect on poverty and rural livelihoods can be achieved, ensuring inclusive economic growth.

Sectoral and Institutional Context

6. The agriculture sector (including crops and livestock) is central to Niger's socio-economic development. The sector is important for the country's food and nutrition security as it is the primary source of food at the household level. It contributes 40 percent to national GDP and is the second largest source of foreign exchange (after extractive industries). It is also a major employer and source of household income, providing jobs to 84 percent of the labor force, many of whom are women and youths. As more than 90 percent of Niger's poor households rely on the sector for their livelihoods, the agricultural sector will continue being a key contributor to overall economic growth in the medium to long-term and to achieving the Government's ambition of reducing poverty to 20 percent by 2035.

7. The sector is mostly rain-fed and dominated by subsistence-oriented small family farms under mixed crop-livestock production systems. Niger has about 2.5 million agricultural households, 95 percent of whom farm less than 3 ha mainly to meet household needs. Within the crop subsector, major cultivated crops are staples, with a clear predominance of millet (46 percent of total area), sorghum (18 percent of total area), and cowpea (32 percent of total area). With respect to the livestock subsector, the national herd is estimated at more than 10 million cattle, 24 million small ruminants, 1.5 million camels, and 18.7 million poultry. About two-thirds of the ruminant livestock population is raised under mixed crop-livestock production systems, while the rest is produced under pastoral systems characterized by significant stock mobility and semi-intensive/intensive production systems. Overall, the crop and livestock sectors contribute two thirds and a third of Niger's agriculture GDP, respectively.

8. Overall, the performance of Niger's agriculture sector has been chronically low and highly volatile. Over the last decade, the sector's growth has averaged 4 percent per annum, considerably below the 7 to 8 percent annual growth rates often cited as necessary to achieve government objectives with respect to economic growth, employment, food security, and poverty reduction. Additionally, this growth has mostly been volatile where years of strong growth are immediately punctuated by decelerating growth or episodes of negative growth due to a myriad of shocks including droughts, floods, and political instability/insecurity. Partly because of the low and volatile growth, Niger continues to register negative food balances and perennially relies on imports to bridge the deficit. This net import situation offers opportunities for generating rapid growth in rural employment and incomes and absorbing higher volumes of domestic production as soon as it is available and can be conveyed to active and remunerative markets.

9. Low productivity both in the crop and livestock sectors contributes to the suboptimal performance of Niger's agricultural sector. Even with improvements over the last decade, the sector is characterized by significant yield gaps for most crops. Average yields of cereals in Niger stand at 0.56 ton/ha (against a potential of 4.0 ton/ha). Yields have consistently lagged those obtained by Niger's immediate neighbors and are only 36 percent of the average yields for Sub-Saharan Africa (SSA). Similar trends are observed in the livestock sector where wide gaps are reported between potential and actual productivity of milk, beef, and egg. Among others, key constraints to improved productivity include: (i) limited availability, access to, and adoption of improved technology (including improved seeds and livestock breeds, crop and livestock disease management practices, soil and water conservation practices, appropriate mechanization and



postharvest handling and management); (ii) weaknesses in provision of advisory services; (iii) lack of access to finance necessary to drive technology adoption and value addition/agro-processing; (iv) limited marketing and value addition, which implicitly undermine profitability and technology adoption.

10. Besides low productivity, limited diversification is also responsible for the sector's poor performance. The structure of Niger's agriculture has changed very little over the last three decades. Millet, sorghum, rice, and cowpea – occupying 96 percent of cultivated area – drive much of agricultural growth while the contribution of diversification to sector growth has been very modest. Millet and sorghum jointly contribute to over 90 percent of the cereal production in the country. Millet alone contributes over 70 percent and is considered the dominant staple food across much of the country, playing a central role in national food availability and access. Yet, the growing urban and export markets will require a different mix of products, including rice, fresh products, good quality meat and generally more high quality and processed products. Diversification in the product mix of agriculture therefore, through a shift toward these high-value products, has great potential for accelerating sector growth, contributing to meeting the growing demand for a diversified food supply, better nutrition, and building resilience of the sector to climate change. This will require the development of irrigation, downstream processing, and well-structured value chains.

11. Furthermore, extreme weather events including droughts and intense floods, and the low inherent potential/endowment, are also implicated in undermining the performance of Niger's agricultural sector. The climate is mostly hot and dry - with a unimodal low and erratic rainfall regime which constrains both crop and livestock production. Although this could potentially be cushioned in part by the huge reserves of easily mobilizable surface and groundwater, which could be deployed for irrigation under investment, inadequate planning, and insufficient technical capacity constrain irrigation development. As a result, only 10 percent (about 210,000 ha out of at least 2 million ha) of Niger's potentially irrigable area is currently under irrigation – most of which is inefficient and underperforming. Over 93 percent of Niger's cultivated area is rain-fed and only capable of producing one crop per year. Compounding these challenges are weather extremes (mainly drought and flooding) which are now known to occur with increasing frequency. On average, Niger experiences an agriculturally significant drought once every 2.2 years - leading to crop failure, livestock death, and land degradation. Floods, which were historically deemed beneficial and associated with bumper harvests, have now increasingly assumed extreme proportions, with debilitating impacts in terms of crop losses, livestock death, damages to productive infrastructure, and rural population displacement, which adversely affects agricultural performance. In terms of endowments, up to two-thirds of the country is desert, degraded and not suitable for agriculture.

12. Climate change is predicted to increase the frequency and intensity of extreme events in Niger, with adverse implications for the agricultural sector. Climate projections for the country point to an increase of up to 2.9 degree Celsius in median temperature and an increase of up to 38 percent in median annual precipitation by the 2050s. Increased temperatures will aggravate moisture stress and drought while increasing precipitation is expected to increase flooding, all with negative impacts on the agriculture sector. Across the country's climate zones, on average, production of millet, sorghum, maize, and groundnut is predicted to fall by 17 percent, 12 percent, 33 percent, and 16 percent, respectively by the year 2050. Additionally, by 2050, climate change is estimated to impact agriculture labor productivity by 8 to 17 percent across the five climate zones. Similar deleterious climate change effects are predicted for the livestock sector (increased livestock diseases and deaths, and shortage of feed/fodder and water), with attendant negative impacts and cascading consequences on livelihoods, especially for the poor smallholder farmers.

13. The agriculture sector is also characterized by limited and under-developed value addition and agro-processing. The country's agro-processing industry is underdeveloped and fragmented, operating under a weak enabling environment including high production costs and suboptimal trade policies. The limited number of agribusinesses (such as slaughterhouses, poultry, leather, dairy, and rice mills) are largely located in and around the main urban centers and with a limited coverage and capacity to structure value chains. At present above 85 percent of the agricultural produce is for



home consumption, leaving a large unmet demand from the growing urban population. Limited value addition is mainly an artefact of supply side constraints including lack of consistent supply/availability of raw materials, limited access to finance by potential processors, lack of quality standards and their enforcement, and under-developed markets and marketing infrastructure. Moreover, limited access to markets (because of deficient transport and infrastructure, value chains, and access to information) constrain producers' incentives to intensify and diversify production to high value products.

14. Access to finance in Niger remains a critical challenge. Despite its importance to Niger's economic development, the agriculture sector received only 0.8 percent of the total portfolio of public and private banks in the country in 2017. The limited access to credit is a roadblock to sector competitiveness as agricultural credit would allow agribusinesses to make productivity-enhancing investments. In 2017, less than 1.1 percent of the adult population of Niger had access to agricultural credit to improve production or invest in the processing of agricultural commodities.

15. There are considerable gender gaps in Niger's agriculture sector. Nigerien women have lower access to productive assets, training and technologies, and credit than men. Women are generally concentrated at the lower levels of the value chains (e.g., weeding, irrigation, harvesting, and minimal processing). On the other hand, men are the primary participants to the market to obtain input supply and sell the products. In addition to their substantial engagement in production, men also serve as the actors downstream of the value chains, including middlemen or village-level traders and processors, wholesalers, retailers, or exporters. This division is exacerbated by the cultural norms/barriers for women and land entitlement issues. These factors severely curtail women's access to resources and services, including credit, training, extension, inputs, and trading and marketing networks.

16. Addressing these sectoral challenges requires a multifaceted approach that enhances productivity across sectors and priority value chains, pursues new sources of sector growth, and integrates climate change considerations into the pursuit of agricultural growth objectives. In 2012, the GoN adopted "Nigeriens Nourish Nigeriens" commonly known as the 3N Initiative (3NI) as its cross-sectoral blueprint to improve crop, livestock, and forest productivity, while augmenting the resilience of farmers and herders to climate change and food insecurity. Among others, the 3NI focuses on (i) increasing and diversifying crop, livestock, and fisheries production; (ii) improving supply of agricultural products to markets; (iii) improving resilience to climate change, crises, and disasters; and (iv) improving the nutritional status of Nigeriens. The WBG currently supports several elements of the 3NI through projects across several Global Practices of the Bank. Yet, the need for further support is large given the government's ambitious targets. Additionally, to facilitate private and community investments in support of the 3NI, the GoN established the Food and Nutritional Security Investment Fund (FISAN) as a vehicle to improve access to financing for agriculture value chain actors. The FISAN has set up an operational team, which started managing projects funded by the GoN and other donors to improve access to agricultural. Since 2021 it has been managing a guarantee fund of 1.7 billion CFA funded by the GoN, Belgium, France, and Luxemburg. However, it still needs some capacity strengthening to be able to fully achieve its mandate. This operation supports 3NI's priorities with respect to enhancing agricultural productivity, promoting diversification, improved agricultural produce marketing, improved resilience to climate change as well as enhancing access to finance for 3NI investments through FISAN.

Relationship to CPF

C. Proposed Development Objective(s)

The proposed Project Development Objective (PDO) is to increase productivity, commercialization, and climate resilience of the agri-food sector in the project areas.



Key Results (From PCN)

- Increased productivity of targeted agriculture and livestock products in project areas (%)
- Area provided with new/improved irrigation or drainage services (ha) – Corporate Results Indicator
- Increased sales of beneficiary farmers and value chain actors in project areas (%) (disaggregated by gender and youth)
- Number of beneficiaries adopting climate smart technologies and/or practices (% of which are female)

D. Concept Description

17. Agricultural production system improvements (e.g., improving productivity, system resilience to climate change, and diversification) and market development are known to reinforce each other and are therefore better pursued and accomplished together. The proposed project primarily seeks to improve agricultural yields and diversify production, build resilience to climate change risks, and improve market access for farmers who can generate a competitive marketable surplus or substitute agricultural imports. The project is designed with three interrelated technical components: (i) Building Resilient Agricultural Productive Capacity; (ii) Improving Agriculture and Livestock Markets; and (iii) Access to Finance. A fourth component will focus on project coordination and institutional strengthening for the ministries of Agriculture and Livestock as well as for the HC3NI.

COMPONENT 1: BUILDING RESILIENT AGRICULTURAL PRODUCTIVE CAPACITY (INDICATIVE FINANCING US\$170 MILLION)

18. The objective of this component is to increase crop and livestock productivity, strengthen farmers resilience to climatic shocks, and diversify both crop and livestock production in response to effective market demand. Expected outcomes from this component include improved farm-level productivity (both in the crop and livestock sectors), increased volume and quality of marketable produce, diversification of production, and improved nutrition. This component contributes to the objectives of the 3NI Pillar 1 “increased and diversified agro-sylvo-pastoral and halieutic production” and Pillar 3 “improved resilience of vulnerable groups to climate change, crises and disasters”.

COMPONENT 2: IMPROVING AGRICULTURE AND LIVESTOCK MARKETS (INDICATIVE FINANCING US\$100 MILLION)

19. The objective of this component is to improve crop and livestock marketing to increase farm profitability and incomes, reduce the risks associated with diversification, incentivize continued adoption of productivity and resilience enhancing practices, and increase the range and quantity of locally produced agricultural commodities in both rural and urban markets. The proposed support builds on increased product volumes that are expected to ensue from the project’s support to productivity improvements under Component 1. This component is fully aligned with Pillar 2 of the 3NI, which focuses on ensuring that rural and urban markets are regularly supplied with food and agro-food products.

20. Project support under this Component will focus on addressing key barriers to market participation and entry by local producers and actors along the various segments of the value chain. Among others, support is envisaged to go towards financing: (i) market assessments/information systems to improve transparency; (ii) value addition to meet market demands and taste; (iii) strengthening linkages between producers and buyers; and (iv) building/rehabilitating market infrastructure – including that which is needed for postharvest management to reduce food waste and loss; and (v) improving food quality and safety.

COMPONENT 3: ACCESS TO FINANCE (INDICATIVE FINANCING US\$55 MILLION)

21. The objective of this component is to increase access to financial services for the agriculture and livestock sectors. In so doing, the project will enable enhanced financial services to producers, agro-processors, and their communities to



improve access to inputs and infrastructure. Under this component, the project will support the operationalization of the National Fund for Agriculture and Food Security (Fonds d'Investissement pour la Sécurité Alimentaire et Nutritionnelle - FISAN) to facilitate investments in all segments of the food and agri-food value chains by increasing the volume and quality of agricultural financing.

COMPONENT 4: PROJECT COORDINATION AND INSTITUTIONAL STRENGTHENING (INDICATIVE FINANCING US\$25 MILLION)

22. This component will focus on all aspects of overall project management, including fiduciary and safeguards aspects, Monitoring and Evaluation (M&E), knowledge management, and communication. It will also address critical cross-cutting institutional strengthening and training needs identified. This component will have two subcomponents which will be implemented by a Project Coordination Unit (PCU) under the oversight of a Project Steering Committee (PSC).

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

Potential environmental effects

23. The project’s environmental risk is assessed as Substantial. This is due to multiple risks associated with the planned activities, including, among others: (i) production and dissemination of improved planting material, certified seeds, and sustainable agricultural practices; (ii) improving access to mechanization, fertilizers, and agro-chemicals; (iii) support to irrigation development and water control; (iv) rehabilitation of existing medium irrigation schemes and scaling up small irrigation schemes managed by communities; (v) supporting animal health services, such as veterinary services and good animal husbandry practices; (vi) improved feed and fodder production; (vii) access to water and sanitary services to improve livestock (under the Component 1); (viii) investments to physical infrastructure in rural and urban markets; (ix) civil works for investments in public infrastructure (new or rehabilitated); (x) agroprocessing and marketing infrastructure such as rural markets, aggregator points, storage facilities; (xi) milk collection centers; and (xi) slaughterhouses, etc. (under the Component 2). The potential negative impacts can be summarized as follows: (i) the multiplication of pathogens related to the poor management of solid and liquid wastes that will be generated on the construction sites; (ii) soil texture and structure modification due to the movement of machinery, (iii) the increase in soil erosion and the sedimentation of streams and water bodies; (iv) disturbance of sensitive ecological areas and micro-habitats and loss of multi-purpose species; (v) destruction or loss of natural habitats due to the destruction of vegetation and breeding sites during right-of-way preparations and during the opening and operation of borrow pits and quarries; (vi) disturbance of wildlife tranquility; (vii) pressure on water resources related to the needs of the work site (such as management of the preparation of soil, watering, concreting,); and (viii) misuse of chemicals and pesticides.

24. Using fertilizers and pesticides and livestock effluents are potential sources of watercourses, groundwater and soils’ s pollution and endanger human and animal health. Support of agriculture activities will increase erosion and soil degradation leading to changes in the functioning of the ecosystem. Furthermore, support for livestock activities will exacerbate the removal of plants which influences floristic composition and the structure of the grazed vegetation,



particularly in arid and semi-arid zones. Damage on ecosystems due to the undermined capacity of the vegetation regeneration and when the surface horizons of the soil are seriously degraded by wind or water erosion. Supporting agro-processing and marketing infrastructure such as slaughterhouses could present operational phase risks such as infiltration and pollution of the groundwater; air pollution due to foul odors and dust; transmission of diseases due to poor management of the slaughterhouses. The potential for indirect and cumulative impacts exists, although they may be avoided or mitigated.

Potential social effects

25. The social risk has been determined to be substantial as various potential risks have been identified even if all the exact locations have not been finalized yet. The most significant social risks foreseen are related to: (i) involuntary resettlement (including permanent and temporary physical or economic displacement of populations located within the immediate vicinity of the proposed investments such as irrigation development and infrastructure; (ii) the Borrower's relatively low capacity to manage grievance mechanisms, labor, sexual exploitation and abuse/harassment (SEA/H) risks, stakeholder engagement, supervision challenges and exclusion of vulnerable social groups in remote areas; (iii) project-level factors that increase potential security and SEA/H risks (such as project activities in locations of planned project activities in very remote and insecure areas and/or rural areas with high rates). The substantial social risk rating may be revised during project preparation, based on the results of a social assessment.

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APPROVAL

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Approved By

Country Director:	Han Fraeters	23-Mar-2023
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