



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 28-Feb-2019 | Report No: PIDC25917



BASIC INFORMATION

A. Basic Project Data

| | | | |
|--|--|---|---|
| Country Mauritania | Project ID P168847 | Parent Project ID (if any) | Project Name Integrated Agriculture and Livestock in Rainfed Areas (P168847) |
| Region AFRICA | Estimated Appraisal Date May 31, 2019 | Estimated Board Date Jul 29, 2019 | Practice Area (Lead) Agriculture |
| Financing Instrument Investment Project Financing | Borrower(s) Ministere de la Finance | Implementing Agency Ministere du Development Rural | |

Proposed Development Objective(s)

The PDO is to “Improve agriculture and livestock productivity and strengthen resilience of beneficiary rural households in the targeted rainfed areas”.

17. The proposed PDO indicators of the project are: (i) yields per hectare in crop production, (ii) production of livestock products (milk and meat), (iii) total hectares under improved technologies disseminated by the project (including the percentage under climate smart technologies, (iv) number of beneficiary households of the project; (v) satisfaction of beneficiaries with the services, works and inputs provided by the project.

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

| | |
|---------------------------|-------|
| Total Project Cost | 20.00 |
| Total Financing | 20.00 |
| of which IBRD/IDA | 20.00 |
| Financing Gap | 0.00 |

DETAILS

World Bank Group Financing

| | |
|---|-------|
| International Development Association (IDA) | 20.00 |
| IDA Credit | 20.00 |



Environmental and Social Risk Classification

Substantial

Concept Review Decision

Track I-The review did authorize the preparation to continue

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Other Decision (as needed)

B. Introduction and Context

Country Context

- Mauritania is a large (1,037,700 km²), arid, and sparsely populated (4.3 million people) country located on the West African coast on the northern boundaries of the Sahel*** – It is estimated that less than two fifths of the country is suitable for agriculture and agricultural practices are mostly traditional and subsistence-based. Mauritania experiences recurring droughts that have led to significant urbanization. Nearly half of the population lives in urban areas, mostly in the greater vicinity of the coastal capital of Nouakchott. The estimated annual urbanization rate is 4.2 percent and the current population growth rate is slightly over 2 percent. Individuals younger than 24 years of age represent around 58 percent of the total population while individuals aged 65 and over represent less than 4 percent. Since its independence in 1960, Mauritania’s economic development has been essentially based on mining and extractives, including fisheries. However, herders and subsistence farmers remain the largest group of inhabitants of the country, and agriculture, including livestock, represent more than a fifth of the Gross Domestic Product (GDP).
- With a real GDP amounting to around US\$5.1 billion and real GDP per capita of US\$1,180, Mauritania is a lower middle-income country despite its mineral resources*** - Extractive commodities make up four-fifths¹ of Mauritania’s exports and around 23 percent of the government’s budget revenues. The economy is structured as follows: 40 percent in services, around 38 percent in industry and manufacturing (processing of mining products) and about 22 percent in agriculture. It is important to note that agriculture still provides jobs for 50 percent of the active population (at least part time), with a quarter of the population involved in livestock production and related activities alone. Mauritania’s economy is heavily affected by global commodity prices due to its reliance on extractives, significant agricultural imports and limited economic diversification. After several years of strong growth, the economy was hit hard by the global decrease in the demand for extractives. This resulted in a drop in the GDP growth rate from 5.0 percent to nearly 2.0 percent between 2010 and 2014. Growth is recovering somewhat, but there is widespread recognition within the government that the country needs to diversify its economy to decrease its vulnerability to global commodity prices, to decrease poverty, and to reduce income inequality.
- Poverty and food insecurity*** - Poverty rates decreased from 51 percent in 2000 to 33 percent in 2014, however the country’s human development index (HDI) has only evolved from 0,347 to 0,506 over the last three and a half decades.

¹ CIA World Factbook



Poverty is mostly a rural phenomenon (70 percent of Mauritania's poor live in rural areas), but poverty rates are also high in provincial towns. This is largely due to the production risks associated with rainfed agriculture and increasingly irregular weather patterns, but also poor connectivity, weak infrastructure and limited access to services. Food security is a struggle for a sizeable part of Mauritania's population in both rural and urban areas, especially when facing droughts. The World Food Program (WFP) found that in 2015, around 26.8 percent of the population were food insecure during the lean season, which can last five or six months in areas where rainfall is unpredictable. The Hodh El Chargui and Hodh El Gharbi, as well as Ghuidimaka and Assaba regions, which are expected to benefit from the proposed project, are the most food insecure areas in the country.

Sectoral and Institutional Context

4. ***Agriculture and livestock continue to play a key role in Mauritania, even though the country is largely made of landscapes vulnerable to effects of climate change*** – The contribution of agriculture to GDP is weather dependent and varies from as little as 5 percent in drought years to 16 percent in years when rainfall is good. Mauritania's agricultural production comes predominantly from irrigated areas where various government support programs have managed to increase rice yields to around 5 tons per ha, amongst the highest in sub-Saharan Africa. Unfortunately, the emphasis on irrigated rice production has been to the detriment of efforts to diversify the agricultural economy. Although there has been a significant shift in cereal crop production from the traditional rainfed farming systems (dieri and walo)² to irrigated agriculture in the Senegal River valley³, the rural poor still rely heavily on the traditional systems for their livelihoods and food consumption. Animal production provides revenues to about one million people (25 percent of the population) and plays a key role in food security. In rainfed areas where cash is scarce, livestock remains the primary means of capital accumulation and functions as a safety net, especially among the poorest. Although Mauritania remains a significant food importer⁴, with food imports accounting for 13 to 17 percent of total imports, rice imports have decreased sharply and account for only 7 percent of food imports.

5. ***Rainfed agricultural production has dropped significantly over the years and rural populations are increasingly vulnerable to food shortages.*** The production of millet and sorghum - the staple crops in rainfed areas - dropped by 15% percent between 2010 and 2016. Rainfed farming has been largely ignored by government support programs and consequently lags in terms of access to, and adoption of, improved agricultural practices. Further, few services are available to assist farmers with improved practices and infrastructure remains limited for the marketing and value addition of rainfed production. The decrease in coarse grain production also plays an important role in the size of animal herds given that sedentary animals survive, to a significant extent, on crop residues. The number of animals is thought to have experienced sharp declines due to climate change⁵ and smallholder producers are particularly vulnerable to distress sales for lack of fodder in drought years. Improved value addition of crop residues and post rainfall harvesting of vegetation for livestock could provide increased quantities and quality of fodder. A better integration of crop production along with more integrated livestock husbandry practices would improve land and water conservation and positively affect the landscape.

6. ***Increased climate variability in an already challenging arid landscape, and a decreasing ground water table, present huge challenges for the future of rainfed rural areas*** - Over exploitation of natural resources in rainfed areas has

² Dieri refers to dryland farming in the rainy season; walo refers to flood recession farming in the off-season.

³ Over the 2010-2015 period, irrigated agriculture accounted for 62% of total cereal crop production, the dieri, 25% and the lowlands (walo), 10%.

⁴ Food imports are mostly of higher value products such as wheat products which account for 23 percent of food imports, egg and milk products (17 percent), fruits and vegetables (8 percent) and meat products (4 percent),

⁵ Unfortunately, the lack of livestock census for the past 60 years, and dubious statistical models to estimate the numbers, provide little confidence in the actual stock of animals whether it be cattle, camelids, small ruminants or poultry. Better statistics are needed to improve planning for disease management and the ability to estimate impact of government support to the sector.



led to environmental degradation that is compounded by unreliable and diminishing rainfall. The harshness of the natural environment, combined with additional risks of desertification and erosion brought about by climate change, create serious sustainability risks. Mauritania's strong winds favor the relentless advance of sand dunes sterilizing cropland and pastures. Vast areas are being claimed by the desert, and become unsuitable for both agriculture and livestock production, threatening the livelihood and survival of rural populations. The highest monthly average daily temperature is 33 degrees Celsius, the number of hot days defined as the upper end of the range of maximum temperature values has increased by 25 days in the last 40 years. This significantly affects rainfed crops since even if adequate moisture is available in the ground, extreme temperatures lead to wilting and stunting of plants that are fully sun exposed and reduced crop yields. Climate models point to an average increase in the annual mean temperature of +2.1 C by 2050 and a reduction in rainfall from 20 percent to 70 percent across regions, directly impacting agriculture and livestock yields (Mauritania NDCs, 2015). As a result, Mauritania's NDCs place heavy emphasis on its adaptation needs. The country's response includes better management of water resources to increase the resilience of farmers and herders, the promotion of climate-resilient crops and breeds, better agricultural practices, and the use of risk transfer instruments (agriculture and livestock insurance). In spite of the difficult environment, there are numerous unexploited opportunities to increase the productivity, resilience and sustainability of the rainfed agro-pastoral production systems in Mauritania.

7. ***Weak institutions are unable to provide the services necessary for the sector's development and rainfed areas are disproportionately affected.*** The impact of weak institutions manifests itself as follows:

- *Agricultural research and development, training, and advisory services have been neglected in Mauritania for decades.* The government has provided almost no support for its agricultural research, training, and advisory services. Unable to recruit or retain researchers, the *Centre national de recherche agronomique et de développement Agricole (CNRADA)* and the *Office national de recherche et de développement de l'élevage (ONARDEL)* no longer have a cadre of trained researchers. The government needs to make a clear decision as to what capacity it wants to retain and ensure that it secures adequate funding and human resources for priority research while dropping aspects that are secondary to its objectives. It also needs to make better use of resources and knowledge available through regional research institutions and structures.
- *Agriculture and livestock statistics are generally of poor quality, making evidence-based policy and planning difficult for both the public and private sectors.* A major concern is the confusing statistics with estimates varying by extremely wide margins. Mauritania has never carried a livestock census, and instead reports animal populations on the basis of colonial tax records on herders, vaccination campaigns, and ad-hoc animal biometrics calibration surveys that lack statistical validity. This makes effective policy making for the sector difficult and hampers effective intervention.
- *Local public extension services are weak and lack resources to be effective players in rural development.* Local services of the Ministry of Rural Development (formerly known as livestock and agriculture delegations) lack capacity and adequate resources. This is especially the case if, as envisaged by government policy, these structures are expected to play a greater role in supporting the adoption of new technologies and provide production related advice (irrigation management, disease management) for both crops and livestock.
- *Lingering land tenure issues continue to hold back agricultural development and diversification in the Senegal River valley.* The 1983 land tenure law made land readily available to any private citizen willing and able to invest in its development. The law remains unclear on the issue of collective propriety rights. Though it abolishes traditional rights, and it is unclear in the treatment of land considered vacant for lack of visible traces of development, which could be attributed to private investors. While land tenure issues are less critical in the dryland areas, they remain an impediment for investment, as land cannot effectively used as a collateral asset.



- There are also governance issues including the necessity to reform the judicial system, and instilling financial transparency from government officials and in public life. These are important issues, as they affect the fairness and costs of procuring public goods and services to the sub-sectors. Decision-making and implementation of governance measures in Mauritania remain slow in many areas.

8. ***Underdeveloped rural infrastructure hampers connectivity and limits access to market.*** Significant efforts have been made to connect the capitals and provincial cities of the regions. However, agricultural production areas remain isolated for lack of year-round passable feeder roads. Even important production centers, such as Rosso, get cut off from the main Mauritanian markets at the onset of the rainy season. The situation is bad enough that fruits and vegetables production businesses exporting to Europe have collapsed because products could not reach airport facilities on time for shipping, or produce got damaged along the bumpy, muddy roads. In areas where livestock production is dominant, and populations have settled to farm, the lack of passable seasonal roads limits small farmers access to markets to acquire inputs but also the sale of any surplus production.

9. ***Limited access to finance prevents the adoption of productivity enhancing technologies.*** The availability of credit to cover the sectors' needs (short, medium, and long-term) at sustainable market interest rates and in line with financial returns in the sector is a serious challenge. Commercial banks, usually believed to have adequate liquidity, shy away from agriculture. They perceive primary agriculture and livestock production to be risky because the activities are dependent on unpredictable weather conditions. Agriculture and livestock production stakeholders lack financial records, and often lack collateral readily convertible into liquid assets. Commercial banks, however, are willing participants in government-backed marketable crop purchase campaigns. Mauritanian banks also offer credit to agricultural investors, but mostly shareholders, or borrowers with strong ties to family banks, and who have valuable collateral (urban real estate).

10. ***The low level of female participation in paid economic activities beyond is an important concern.*** The agriculture sector generates more than half of total employment, but rural jobs are mostly seasonal and informal. This informality translates into low labor productivity and further translates into a vicious circle, i.e. restricting rural actors' access to finance (as noted earlier), which further hinders productivity. Increased productivity is needed to generate growth and lift the sector out of poverty. Rural women have limited access to gainful employment outside of the household and their participation in the economic decision making of the family is limited. Women producers have limited access to land (only 18.7 percent of land owners are women) and other productive assets (financial and technical resources).

11. ***The government's strategic orientations are informed by the National development Strategy (Stratégie Nationale de Croissance Accélérée et de Prospérité Partagée - SCAPP) and the focus on a spatial approach to address poverty in the country.*** Mauritania suffers from large regional disparities in poverty rates with areas of the South East such as Ghuidimakha, Assaba and Tagan that are also amongst the most densely populated areas outside of Nouakchott nearing 50 percent. The surrounding Willayas of Brakna, Gorgol and the two Hodhs are only marginally lower. Poverty rates follows an inverse pattern with access to public services, schools most notably. Given the situation, the government has been appealing to donors to focus on programs that would support these regions of high poverty and poor connectivity. Cross sectorial interventions in these regions are expected to help improve access to basic services and provide the basis for more secure livelihoods of the populations in this area. Better integrating agriculture and livestock to optimize the sustainable use of scarce natural resources along with income generating activities would underpin this development. The return to an institutional set up where both the Ministry of agriculture and Ministry of livestock are merged into one single ministry emphasizing rural development as primary objective reflects the primacy of the objectives of the SCAPP.

12. ***Agriculture and livestock orientations are captured in the National Agricultural Development Plan (NADP) 2016-2025 and National Livestock Development Plan (PNDE) 2018-2025.*** These plans build on previous strategies and policies for the sub-sectors, including the Horizon 2025 Rural Development Strategy, the 2015 Agro-pastoral Orientation Law



(LOA), the National Food Security Strategy (NAHS) vision 2030 and the 2016-2030 Accelerated Growth and Shared Prosperity Strategy (SCAPP) supported by the World Bank. They include:

- *Five strategic orientations for the agricultural sector:* (i) the government maintains its liberalization policy through appropriate measures to begin its progressive disengagement; (ii) the development of growth-enhancing subsectors that generate permanent jobs and incomes, taking into account the gender dimension; (iii) the integration of the rural economy into the national and international market; (iv) the application of efficient and adapted technological innovations for the intensification and diversification of agricultural production, while remaining respectful of the environment; and (v) integrated and participatory development.
- *Five priority areas for the livestock sub-sector:* (i) traditional and pastoral livestock rearing; (ii) increasing the productivity of promising value chains; (iii) improving animal health; (iv) research and development, training and advisory services; and (v) capacity building of the public and private sectors. The priority area related to the development of value chains has identified the following subsectors as promising: (a) cattle fattening and the marketing of red meat; (b) hides and skins and other by-products; (c) milk and milk products; (d) poultry; and (e) forage production.

13. **Mauritania has adopted and ratified the UN-environmental conventions such as UNFCCC, the UNCBD and the UNCCD.** All these are now under implementation and widely reflected in the national environment action plan (NEAP). Also, the country's NDCs target to reduce gas emissions (CO₂, CH₄, N₂O) by 22.3 percent (2030). The needs for investments in the adaptation of the agriculture and livestock sectors is estimated at a combined US\$879 million.

Relationship to CPF

14. A primary aim of the CPF is to support “the transition to a more inclusive, diversified and resilient model of growth, building on Mauritania's natural resource wealth” as follows:

- a. By expanding opportunities for economic diversification with interventions to raise productivity in traditional livestock, fisheries, and agricultural activities; improving household welfare through access to basic services; and enabling increased participation in economic activity which will further sustain growth.
- b. by intervening in education, health and social protection will emphasize quality and access for the most vulnerable population segments and employability of youth and women, and
- c. by supporting improvements in economic governance to optimize revenue mobilization and public spending, create opportunities for the private sector and strengthen the transparency of the extractives sector.

15. The proposed project would directly support these objectives by focusing on: (i) diversification of agricultural production, which will support objective (a) by stabilizing/raising productivity, (ii) investments in dryland areas that have been consistently falling short as recipients of government support programs in the agriculture sector will support objective (c) in optimizing public spending, and (iii) interventions to improve productivity of dryland mixed farming thus building resiliency of farmers and the landscape in an evolving climate and unpredictable weather patterns and contributing to objective (a).

16. The Africa Climate Business Development Plan includes a focus on climate smart agriculture (CSA), adapting and building resilience of agriculture and food systems to climate change at multiple levels; and reducing greenhouse gas (GHG) emissions from agriculture. The project will contribute to the Africa Climate Business Development Plan. This will be done by: (i) ensuring that adaptation mechanisms are applied to the sites where availability of water would be increased, and (ii) putting in place practices that help soil and conservation and a landscape, all in view to ensure that climate resilience of production is improved as result of the project intervention.



C. Proposed Development Objective(s)

The PDO is to “Improve agriculture and livestock productivity and strengthen the resilience⁶ of beneficiary rural households in the targeted rainfed areas”.

Key Results (From PCN)

17. The proposed PDO indicators of the project are: (i) yields per hectare in crop production, (ii) production of livestock products (milk and meat), (iii) total hectares under improved technologies disseminated by the project (including the percentage under climate smart technologies, (iv) number of beneficiary households of the project; (v) satisfaction of beneficiaries with the services, works and inputs provided by the project.

D. Concept Description

18. *Targeting* - The project will focus on developing the production potential of the regions of Brakna, Tagant, Gorgol, as well as the two Hodhs. These regions suffer from increasing climatic constraints and have received less attention and support than irrigated areas. They are home to vulnerable populations, who are highly food and nutrition insecure, and are the main targeted beneficiaries of the project. The identification of beneficiaries will be carried out in coordination with the teams responsible for the establishment of the social register focusing on the poorest households. To date, approximately 75,000 households are included in the register, representing around 500,000 people, mainly in rural areas. This figure is expected to grow to around 200,000 households by 2020, which will represent nearly 1.35 million people, mainly in rural areas to be targeted by the project and a bit more than a third of the Mauritanian population. A register of beneficiaries will help in keeping track of changes in livelihoods and provide for better monitoring of the impact of the project.

19. *Proposed activities to be supported* – Integrated crop-livestock activities will be promoted by the project. For example, better use of crop residues will be sought to increase fodder for animal production, while manure use and animal traction will be promoted for crop fertilization and agricultural labor. This will allow producers to diversify their sources of income and, for the population in general, to increase the availability of nutritional inputs. The development of complementary sectors (horticulture, medicinal plants, gum arabic, date palm, poultry) and support services benefitting the rural farming community will also be supported. In a context of scarce water resources, the promotion of new technologies for water harvesting, and the optimization of water use, will lead to sustainable improvements in agricultural productivity. The project will focus primarily on increasing, diversifying and marketing agricultural production to strengthen the resilience of targeted beneficiaries.

⁶ Resilience is defined as the capacity to recover quickly from difficulties. It is a process of adapting well in the face of shocks and adversity. In the context of this project, given that the most households in the rainfed areas are often subject to chronic poverty and rely on high-risk weather dependent livelihood activities, strengthening resilience means; (i) improving food security, (ii) more effective use of land and natural resources including better livestock and farm management practices that help landscape preservation and restoration, as well as (iii) improved access to alternative livelihood options and finally, (iv) contingency finance mechanisms to improve coping capacity to the impact of shocks.



20. Given the relative weakness of institutions, there is a need for capacity building of both public and private service providers. Hence, the project will aim to strengthen the skills and provide the resources necessary (to both public and private service providers) to identify, develop, adapt and disseminate innovative and climate smart technologies and practices. It will promote and support the development and implementation of policies and strategies that facilitate smallholder access to advisory services, financing and inputs. This will create a favorable technical and institutional environment to sustainably increase production. Relevant and successful experiences from other sectors (such as the fisheries sub-sector) and projects will be analyzed for the purpose of integrating good practices.

21. **Component 1. Increased Productivity and Resilience (US\$12.00)** – This component would support the intensification of crop production through better surface water management and improved agronomic practices, including the use of improved inputs such as certified seeds. The focus would be on traditional dryland crops such as millet, sorghum and cowpea. This intensification would involve the introduction of landscape management practices that integrate sedentary livestock production with crop production. Livestock held in a more controlled environment on fenced pastures or pens would cause less damage to crops and the natural environment. Support for genetic improvement and better livestock husbandry practices would ideally lead to smaller herds of more productive animals. Efforts would be made to improve the value-added of existing resources and introduce new techniques. Examples include hay or silage making during and after the rainy season, as well as better collection and valorization of crops residues by shredding for better ingestion and digestibility for animals. Improved water management (e.g. water run off catchment in consultation with the ministry in charge of the hydrology, micro irrigation of intensive crops especially for women, mechanisms of distribution of water to reach the dryland crops, fruit trees and cattle) would be considered by the project. Expected results are populations and landscapes will be more resilient to climate change through more diversified and intensive production methods. Attention would be given to the involvement of communities in the design of local and the choice of sub sector activities to support. However, activities would always be emphasizing aspects related to improved productivity, landscape management and livelihoods.

22. **Component 2. Marketing Support and Income Generation Activities (US\$ 5.00)** - This component would focus on income generating activities and job creation along the first segments of the agricultural and livestock value chains and targeted to the most vulnerable populations (mainly women, youth and returnees). The project will support a grants mechanism, for financing small-scale projects aimed at developing an activity promoting: (i) the marketing of traditional products, benefiting from the inputs of the first component (e.g. coarse grains, cowpeas, fodder, horticultural products, milk including camel milk, red meat), (ii) innovative commercial activities (e.g. creation of poultry farms, harvest of gum arabic, production of oils or medicinal powders), or (iii) general services that support the local agriculture economy such as tilling services, transport or transformation.

23. **Component 3. Institutional Support, Project Management and Contingency Emergency Recovery Component - CERC (US\$3.00)** - This component would provide support for project monitoring, implementation and institutional development. In this way, the project will contribute to strengthening the capacity of government institutions and private service providers to meet the needs of the population in rainfed areas. To the extent possible, the acquisition of new technologies and methodologies would build on the experience of neighboring countries in the implementation of the World Bank's West Africa Agricultural Productivity Program - WAAPP program. In addition, a CERC component reflecting the practices of current operations in Mauritania will be developed during preparation in collaboration with the Social Protection Team working on the financing mechanisms of emergency interventions in the country.



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

Summary of Screening of Environmental and Social Risks and Impacts

The overall project is intended to generate positive environmental benefit because it will improve water use efficiencies, improve natural processes which enhance soil fertility and promote maximum productivity on existing agricultural lands. The project will also reduce the climatic and environmental risks in its areas of interventions. By developing and financing higher-value agricultural and livestock schemes that are economically viable, socially beneficial and environmentally sustainable, the project can either contribute to, or further deteriorate, surface and ground water.

Note To view the Environmental and Social Risks and Impacts, please refer to the Concept Stage ESRS Document.

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APPROVAL

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