

# Concept Note

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## **Upscaling "Naatangué" integrated family and village farms for a resilient agriculture**

Senegal | Centre de Suivi Ecologique (CSE)

5 September 2018



**GREEN  
CLIMATE  
FUND**

# Simplified Approval Process Concept Note

Project/Programme Title:	<b>Upscaling "Naatangue" integrated family and village farms for a resilient agriculture</b>
Country(ies):	Senegal
National Designated Authority(ies) (NDA):	Madeleine DIOUF SARR
Executing Entities:	Agence Nationale d'Insertion et de Développement Agricole (ANIDA)
Accredited Entity(ies) (AE):	Centre de Suivi Ecologique (CSE)
Date of first submission/ version number:	<u>[2018-08-11] [V.0]</u>
Date of current submission/ version number	<u>[2018-08-11] [V.0]</u>



Please submit the completed form to [sap@gcfund.org](mailto:sap@gcfund.org),  
using the following name convention in the subject line and file name:  
“CN-[Accredited Entity or Country]-YYYYMMDD”

<b>A. Project / Programme Information (max. 1 page)</b>			
<b>A.1. Project or programme</b>	<input checked="" type="checkbox"/> Project <input type="checkbox"/> Programme	<b>A.2. Public or private sector</b>	<input checked="" type="checkbox"/> Public sector <input type="checkbox"/> Private sector
<b>A.3. Indicate the result areas for the project/programme</b>	<p><b>Mitigation:</b> Reduced emissions from:</p> <input type="checkbox"/> Energy access and power generation <input type="checkbox"/> Low emission transport <input type="checkbox"/> Buildings, cities and industries and appliances <input type="checkbox"/> Forestry and land use  <p><b>Adaptation:</b> Increased resilience of:</p> <input checked="" type="checkbox"/> Most vulnerable people and communities <input checked="" type="checkbox"/> Health and well-being, and food and water security <input type="checkbox"/> Infrastructure and built environment <input checked="" type="checkbox"/> Ecosystem and ecosystem services		
<b>A.4. Estimated mitigation impact (tCO<sub>2</sub>eq over lifespan)</b>		<b>A.5. Estimated adaptation impact (number of direct beneficiaries and % of population)</b>	2640 direct beneficiaries 8000 indirect jobs 34 associations
<b>A.6. Indicative total project cost (GCF + co-finance)</b>	Amount: USD 10,000,000	<b>A.7. Indicative GCF funding requested (max 10M)</b>	Amount: USD 9,301,818
<b>A.8. Mark the type of financial instrument requested for the GCF funding</b>	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Loan <input type="checkbox"/> Guarantee    Other: specify _____		
<b>A.9. Estimated duration of project/ programme:</b>	a) disbursement period: 4 years b) repayment period, if applicable:	<b>A.10. Estimated project/ Programme lifespan :</b>	This refers to the total period over which the investment is effective. <b>4 years</b>
<b>A.11. Is funding from the Project Preparation Facility needed?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>A.12. Confirm overall ESS category is minimum to no risk<sup>1</sup></b>	<input checked="" type="checkbox"/> C or I-3
<b>A.13. Provide rationale for the ESS categorization (100 words)</b>	<p>« Naatangué » farms are small-scale community (on 15ha) or family (on 2 to 3 ha) farms developed in agricultural areas. They are located out of areas with a protection statute due to ecological or cultural value and on lands that have been made available through a deliberation by the municipality. It should be noted that the choice of these sites is made on the basis of an environmental and social synoptic sheet developed by ANIDA in order to detect any negative impact and to identify mitigation measures. In addition, the planned infrastructures are small-scale nature and do not require major works. In the operating phase, producers benefit from the support of specialized structures in agricultural advice with a focus on methods and practices that respect the environment. This project is a scaling up of a pilot experiment during which no significant impact has been reported neither documented.</p>		
<b>A.14. Has the CN been shared with the NDA?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>A.15. Confidentiality<sup>2</sup></b>	<input type="checkbox"/> Confidential <input checked="" type="checkbox"/> Not confidential
<b>A.16. Project/Programme rationale, objectives and approach of programme/project (max 100 words)</b>	<p><i>Brief summary of the problem statement and climate rationale, objective and selected implementation approach, including the executing entity(ies) and other implementing partners, including who will be implementing the measures to manage the environmental and social risks.</i></p> <p>Senegal is a Sahelian country which is very vulnerable to the impacts of climate change. The main pillars of the country's economy, agriculture and livestock, are highly</p>		

<sup>1</sup> Refer to the SAP ESS Guidelines

<sup>2</sup> Concept notes (or sections of) not marked as confidential may be published in accordance with the Information Disclosure Policy ([Decision B.12/35](#)) and the Review of the Initial Proposal Approval Process ([Decision B.17/18](#)).

dependent on climatic conditions. The vulnerability of the agricultural sector is mainly manifested by rainfall variability and land salinization, water erosion and the recrudescence of climate-related emerging diseases. The consequences are: yield losses, declining incomes and sustainable livelihoods of rural people. This project seeks to reduce the vulnerability of producers to climate change through the intensification of production systems and a better integration agriculture-livestock-fishing. It will be implemented by ANIDA through an inclusive and collaborative approach with the involvement of relevant services such as ISRA, DE and ANA. The accredited entity is CSE which will ensure the application of environmental and social safeguards as provided by the national regulations.

**B. Project / Programme details (max. 3 pages)**

**B.1. Context and Baseline (max. 1 page)**

*Describe as relevant the climate vulnerabilities and impacts, GHG emissions profile, and mitigation and adaptation needs that the prospective intervention is envisaged to address.*

Senegal is exposed to climate risks, mainly because of its economy which is dependent on climate-related activities. Thus, the living conditions of 80% of rural populations remain closely linked to the performance of rain-fed agriculture highly subject to inter-annual and inter-seasonal rainfall variability (Albert and Springer, 2004). Many farmers live in rural areas characterized by low rainfall, salty land, fragile or degraded soils and limited access to markets. The statistics show that rural populations are the most exposed to the lack of accessibility to the five main basic social services (market places, drinking water point, school, road and health post). This poverty is even more prevalent in areas of rainfed agriculture (IDRC Report, 2016<sup>3</sup>) and is likely to worsen with the climatic variations. Indeed, a rainfall deficit combined with temperature increase and possibly the occurrence of extreme weather events, could lead to an advanced degradation of the resources (degradation of 2/3 of arable lands) and cause a significant decline in the productivity of agriculture and livestock, which contribute 13.7% of GDP (NDC Report, 2017). In other words, in Senegal, the impacts of climate change may result in the reduction of vegetation cover following a significant water deficit, water and wind erosion, salinization linked to the invasion of saline waters (Fall, 2006) and lack of drainage, loss of soil fertility (Crasswell et al., 2004).

In this context, local strategies are based on peasant agriculture, also called family farming based on rain-fed production systems dominated by small family farms focused on cereal crops. In fact, the mechanisms adopted in rural areas to adapt to climatic hazards have for a long time been based on so-called "self-insurance" (food storage and capital made up of small or large livestock), the distribution of risks (diversified spaces) and the valorization of complementarity (agro-sylvopastoral productions, income from migration and diversification of local activities).

This form of resilience of senegalese farmers currently seems to find its limits because of the magnitude and frequency of climatic hazards. Climate change is reflected both in long-term trend (increase of drought, changes in weather patterns, temperature increase and decrease of rainfall patterns), and increase of extreme events (drought, floods, storm, etc.) and high climate variability (temporal and spatial variability). These natural phenomena have direct and indirect consequences on the socio-economic activities and lifestyles of farming households, thus making the sector very vulnerable. Rural populations are facing decreasing crop yields, decreasing animal and forest production with a reduction of ecosystem services.

*Please indicate how the project fits in with the country's national priorities, action plans and programs and its full ownership of the concept.*

Giving this situation, the Government of Senegal has put in place a policy placing agriculture at the heart of the development strategy, as evidenced in the Emerging Senegal Plan (PSE), particularly in its Strategic Axis 1 "Structural Transformation of the Economy and Growth". This axis, one of the pillars on which is based the modernization of family farming, proposes 27 projects creating wealth and jobs in the various sectors of the economy, including a major strategy built around 200 micro-support projects supporting family farming (PSE, 2014). Also, 17 reforms have been initiated, including 12 aiming the improvement of food security, nutrition and sustainable agriculture. In addition, the measures relating to fight against climate change are supported and implemented in the Strategic Axis 2 of the PSE "Human Capital, Social Protection and Sustainable Development". These strong ambitions of the PSE for the agricultural sector are reflected in the development objectives set out in the Programme of Relaunching and Accelerating the Pace of the Senegalese Agriculture (PRACAS), which lays the foundations for the creation of massive jobs in the agricultural sector and the development of a highly competitive agribusiness sector anchored to the horticultural and rice value chains.

ANIDA, which is a key player in the implementation and operationalization of this national policy, has developed models of farms characterized by the integration of productions (animal and vegetable) to promote and modernize family farms.

<sup>3</sup> Senegal: review of the socio-economic, political and environmental context study report, International Development Research Center (IDRC), 2016

These models are built around a program called "Naatangué Farms", adapted to both community and individual levels.

- At the community level, the small-scale community farms « Naatangué » are oriented towards horticultural and animal productions and are equipped with boreholes or wells allowing water availability in all seasons. Development of five (5) hectares blocks autonomous in irrigation and fertigation. Small-scale community farms « Naatangué » are built according to a standard model including a fence, a water point (borehole, filtering point, etc.) electricity equipment (electric pump, generator or SENELEC network, control cabinet), a cabin of pumping, an irrigation network (structuring network, fertigation station, surface network).
- At the individual level, the Naatangué family farms are small integrated family farms (market gardening, arboriculture, fish farming, breeding) which rely on the exploitation of surface water using solar panel as a source of energy for the dewatering. This family farm model "Naatangué" is located on an 1 to 2 hectares expandable area, consisting of a well equipped with a pump using solar energy; a market garden on a 0.5 ha area; a fish pond of 280 m<sup>3</sup>; a chicken coop of 12 m<sup>2</sup>; a small barn; a raised water tank (1 to 5 m<sup>3</sup>); and a house allowing the farmer to live in the farm.

To date, 221 "Naatangué " farms (family (120) and community farms (101)) have been realized and have allowed:

- the production of 58.176 T of fruits, vegetables and cereals on "Naatangué" farms and emerging agricultural areas between 2012 and 2016;
- an average of 18 crops produced for each agricultural year including onions, potatoes, tomatoes, peppers, green beans, okra and melons;
- a exported volume of 5,127 T between 2012 and 2017, of which 3,966 T between 2015 and 2017 (exported species are green beans, melons, sweet corn, butternut);
- the creation of 16,240 permanent and seasonal jobs for young people and women as of June 30, 2017;
- animal products such as milk, meat and poultry products.

This strategic approach to produce integrated farms is sustainable and limits the adverse effects of climate change on the territory's agricultural activity. To this will be added the adoption of climate-smart agriculture by integrating various scientifically validated options in the operation of farms. For the integration of these options, ISRA (Senegal's National Agricultural Research Institute) through its National Forest Research Center is a strategic partner.

For the 2018-2020 period, ANIDA's investment plan includes the development of 402 farms (261 Naatangué family farms and 141 Naatangué community farms). These achievements will enable the creation of 40,000 permanent and seasonal jobs by 2019, the annual production of 90,000 tons of fruits and vegetables and cereals for the local market and food security, the export of more than 15,000 tons of products.

*Describe the main root causes and barriers (social, gender, fiscal, regulatory, technological, financial, ecological, institutional, etc.) that need to be addressed. Where relevant, please describe the key characteristics and dynamics of the sector or market.*

Several barriers limit the scope of previous interventions or investments in the different regions of the country:

- At the social level: there are difficulties of access to land for vulnerable groups (women and young people).
- At the institutional level: there appears to be a low level of human capital development and the capacities of institutional actors.
- From a technical point of view: in some areas, interventions are rare because of the high variability in the depth of the aquifer, which affects the pumping heights. We also note the low cultural intensity, the lack of agricultural equipment and the professionalisation of the actors.
- In terms of financing: there is a strong dependence on financing of agricultural campaigns. Any delay in this funding leads some farms not to participate in the agricultural campaign. Also, the diagnosis of PRACAS concludes that the financing system for the agricultural sector is inadequate and the marketing of agricultural products is disorganized and insufficiently regulated (dominant informal system).

## **B.2. Project / Programme description (max. 1 page)**

*Describe the expected set of components and activities to address the above barriers identified that will lead to the expected outcomes.*

This project is taking place in an area with high agricultural and horticultural potential located in the regions of Thiès, Saint-Louis, Louga, Tamba, Kolda, Kaolack, Kaffrine and Ziguinchor. The project will cover 22 municipalities with the installation of family farms and village farms. In its implementation, the project will establish protocols with various technical partners including the Senegalese Institute for Agricultural Research (ISRA), the Forestry Service (DEFCCS), the National Agency of Aquaculture (ANA), the Directorate of Agriculture (DA), the Livestock management Department and the National Biogas Program (PNB). The overall objective is to promote the scaling up of "Naatangué" village and family farms which are resilient to climate change. More specifically, the project aims to: (i) increase and modernize agricultural production capacity in all project areas; (ii) optimize the operation and profitability of farms, maximize the income of established farmers; (iii) professionalize producers; (iv) build the capacity of producers and other stakeholders for the integration of Climate-Smart Agriculture options into the Naatangué village farm model. Hence, the

interventions are structured around three (03) components.

**Component 1: Realize hydroagricultural production infrastructures**

The activities included in this component aim to develop, in a participatory and sustainable way, agricultural infrastructures designed to promote the security, growth, storage, marketing and consumption of plant and animal products. It will be:

- 25 village farms to be consolidated with solar equipment for pumping and lighting for \$ 1,050,000
- 150 family farms "Naatangué" for \$ 3,415,000
- 10 village farms with integrated production, budgeted at \$ 1,050,000
- 12 vegetable village farms for \$ 1,960,000
- Studies and control estimated at \$ 503,182

**The total investment cost of this component is estimated at \$ 7,978,182.**

**Component 2: Support for development through innovation, organization and agricultural advice**

This component aims to strengthen the extension and advisory services at sites level and job creation for youth. It also aims to strengthen the organizational, structuring and professionalization capacities of the installed producers. Support for the processing of products will improve the nutritional status of populations and the marketing of products. The gender dimension will be taken into account in this component through the involvement of women and youth in all activities. Also, the resilience dimension will be taken into account during the implementation of production activities on farms through the use of climate-smart technology packages and awareness raising for resilient practices. This will therefore improve the resilience of producers. It will be to:

- provide a support service;
- promote domestication and agroforestry technologies;
- valorize productions;
- set up and operationalize a multi-stakeholder innovation platform for learning and exchange on value chains.

**The total investment cost of this component is estimated at \$ 900,000.**

**Component 3: Organizational and Entrepreneurial Capacity Development**

This component aims to better organize producers and professionalize them. The implementation of this component will ensure the viability of producers' operations. Women and youth will also be involved in the process of professionalization. The activities will be to:

- make an institutional diagnosis of producers organizations;
- build capacity in organizational development and entrepreneurship;
- set up cooperatives and a revolving credit system;
- develop small and medium-sized forestry and agricultural enterprises.

**The total investment cost of this component is estimated at \$ 301,818.**

**Component 4: Project Management**

The project management unit will be responsible for implementing this component. It concerns the whole coordination and implementation of the activities of the project. It aims to ensure effective project management, focusing on the monitoring and evaluation of results and impacts. Particular emphasis will be placed on results-based management, as well as monitoring and measuring the impact of the program, especially on women and youth.

**The total investment cost of this component is estimated at \$ 820,000\$.**

<b>Component 1: Realize hydroagricultural production infrastructures</b>
<b>Objective 1 : Increase and modernize agricultural productive capacity in all project areas</b>
<b>Result 1.1. 22 Naatangue village farms completed</b>
<i>Activity 1.1.1. Selection and delimitation of sites Missions and meetings (CRD, CLD, etc.) with the administrative and local authorities for the delimitation and the selection of the sites</i>
<i>Activity 1.1.2. Implementation of the village farms Design of the bidding documents, procurement of works and inspection studies, study control of development works</i>
<i>Activity 1.1.3. Hydrogeological study, control and surveys Monitoring / control of works / supervision of services, acceptance of works / works / equipment</i>
<b>Result 1.2. 150 family farms completed</b>
<i>Activity 1.2.1. Selection of beneficiaries</i>

<i>Activity 1.2.2. Mobilization of financing Collaboration with local financial institutions to provide funds to beneficiaries, contribution of stakeholders: ANIDA, Donors, beneficiaries</i>
<i>Activity 1.2.3 Implementation of the family farms</i>
<i>Activity 1.2.4. Monitoring / control, receiving works</i>
<b>Result 1.3. 25 consolidated village farms</b>
<i>Activity 1.3.1. Identification of farms to be consolidated by the substitution of solar thermal pumping</i>
<i>Activity 1.3.2. Equipment of pumping stations</i>
<b>Component 2: Support for development through innovation, organization and agricultural advice</b>
<b>Objective 2. : Strengthen the resilience of the "Naatangué" farms model by the introduction of technological innovations</b>
<b>Result 2.1 : Climato-Smart Agriculture options are integrated in the "Naatangué" models</b>
<i>Activity 2.1.1. Contextual application of climate-smart technological packages</i>
<i>Activity 2.1.2. Selection and organization of beneficiaries Local Development Committee (CLD) meetings and meetings with committees in charge of the selection, village assemblies and formalization of producers into economic interest grouping</i>
<i>Activity 2.1.3. Promotion of domestication and agroforestry technologies (diversification and integration of production, agro ecological options through the introduction of the tree, water saving, management of agricultural waste, promotion of biodigesters, securing farms, etc. ) to strengthen and diversify the productive base of naatangué farms</i>
<i>Activity 2.1.4. Creation and operationalization of multi-stakeholder innovation platforms for learning and exchange on value chains</i>
<i>Activity 2.1.5. Agricultural Advisory Service Preparation of production campaigns, support for the implementation of production campaigns, support for producers in the marketing and the valorisation of productions</i>
<b>Component 3: Organizational and Entrepreneurial Capacity Development</b>
<b>Objective 3 : Organize and professionalize producers</b>
<b>Result 3.1 : Producer organizations are better professionalised</b>
<i>Activity 3.1.1. Institutional diagnosis of producer organizations</i>
<i>Activity 3.1.1. Capacity building in organizational development and entrepreneurship</i>
<i>Activity 3.1.2. Development of cooperatives</i>
<i>Activity 3.1.3. Development of a revolving credit system</i>
<i>Activity 3.1.4. Development of small and medium-sized forest enterprises through the development of non-timber forest products (NTFPs)</i>
<b>Component 4: Project Management</b>
<i>Monitoring and evaluation, communication, etc.</i>

*Please explain why this project or programme is ready for scaling up and having the potential for transformation. Has it been piloted in the country or region? Are the proposed interventions well documented for their costs and benefits?*

The "Naatangué" farm model has been experimented and adopted in the 14 regions of Senegal. This concerns the development of farms, the supervision of infrastructure installation work or the granting of agricultural advice. The purpose of the project is to be able to respond to the strong demand of the populations by developing this model in the areas of the country which are deficient in infrastructures of this type and which especially face the problems of food security and diversification of the incomes. The transformational aspect of the project lies in the modernization of the type of farm with an integrated production approach (plant and animal) and the marketing of products from these farms. ANIDA's current achievements include annual activity reports as well as semi-annual performance reports. All the interventions are documented, because there is a performance contract signed between the Agency and the Government of Senegal to ensure that the objectives are met and that the financial allocations are used wisely. In developed reports, profits from productions are also recorded.

*Describe in what way the Accredited Entity(ies) is well placed to undertake the planned activities and what will be the implementation arrangements with the executing entity(ies) and implementing partners.*

CSE has 30 years of experience in agricultural monitoring and nearly 25 years of project management experience. CSE is an accredited entity with the Adaptation Fund (AF) and the Green Climate Fund (GCF). It has already implemented projects with budgets ranging from \$ 200,000 to \$ 8.6 million, with funding from different types of donors (AF, UNEP, UNDP, WAEMU, African Union, IDRC, Embassy of Holland, USAID, etc.) and which implementation involves different institutions (technical services, NGOs, community organizations, etc.). This experience will be use for this project in its implementation.

ANIDA is the main executing agency, but it will be able to develop collaborations with other services such as the

National Aquaculture Agency (ANA) for the management of fish farming activities, the Forestry Department for the reforestation, the Livestock management Department for the management of stockfarming activities and the National Forest Research Center (CNRF / ISRA) for the integration of technological packages. Agreements will be signed between CSE and the Executing Agency and protocols will also be signed between the executing agency and the other implementing partners. The administrative and financial management procedures of all these institutions will be pre-checked by CSE in order to identify any gaps and propose corrective measures. Acquisitions will be based on CSE procurement procedures. A project management unit will be set up with a coordinator, an assistant and a monitoring and evaluation officer. A steering committee will also be set up to validate work plans and progress reports.

*Please provide a brief overview of the key financial and operational risks and any mitigation measures identified.*

The main risks that can be identified at this stage relate to:

<b>Risks</b>	<b>Level of risk</b>	<b>Probability of occurrence</b>	<b>Mitigation measures</b>
Failure to respect the technical itinerary of the farms which would lead to lower yields	Medium	Low	An agricultural advisory procedure has been developed and in addition to the agricultural adviser, a zone coordinator intervenes to ensure compliance with this procedure.
Poor management of infrastructure and equipment	Medium	Medium	The maintenance procedures developed by ANIDA will be enforced. The agricultural adviser is in charge of ensuring the application of such procedures.
The absence, insufficiency or delay of funding for agricultural campaigns	High	Medium	A revolving credit system will be set up to support the start of campaigns
Exchange rate risk: fluctuation of the exchange rate which may lead to a modification of the initially budgeted costs.	Medium	High	The budget will include a budget line for unexpected expenses

### **B.3. Expected project results aligned with the GCF investment criteria (max. 1 page)**

*Please describe and provide an estimate of the expected impacts aligned with the GCF investment criteria: paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness.*

#### **Impact potential:**

The project targets one of the sectors most vulnerable to climate change, that is agriculture. It is designed to strengthening the resilience of farmers and more broadly to reducing significantly the vulnerability of rain-fed agriculture to climate change. The GCF funding will allow strengthening communities and ecosystem resilience through the scaling up of agroforestry practices and the development of integrated farms. It will reach nearly 8,000 beneficiaries including 2,640 direct beneficiaries.

#### **Paradigm shift:**

This project, which allows the scaling up of farms that integrate in a same area market gardening, arboriculture, fish farming and livestock farming, contributes to having a different vision of the traditional use of a farm in Senegal. The particularity of the project is that the farms offer an integrated approach (animal and plant resources); their exploitation is based on water control through the use of groundwater while conventional agriculture use surface water or rain. It is a viable system through the creation of agricultural enterprises and wealth, the professionalization of producers through training and counseling, improving the nutritional quality of impacted households.

The aim here is to generalize a new model of local development that meets the needs of the population and which is beneficial at the national level, both in terms of conservation of natural resources and economic and social development.

#### **Potential for sustainable development:**

This project contributes to the modernization of family farms, the promotion of high added value sectors, the increase of vegetal and animal productions and the revival of the economy. Indeed, thanks to the infrastructures installed and especially to the marketing of the products, the project contributes to the fight against poverty, the rural exodus and the illegal immigration through the creation of jobs. Through the components developed, the project contributes to the revival of the fish farming activity with the establishment of fish ponds, improving the access of vulnerable families to energy services and water.

The project opens up important economic opportunities for the benefit of rural populations. With the development of animal and vegetable production chains, the project allows the creation of about 3 direct jobs per family farm. For community farms, close to 40 direct jobs and more than 120 indirect jobs will be created per farm. The project also

contributes to reducing the import of certain agricultural and horticultural products (onions, melons, green beans, etc.) and contributes to achieving the objectives of the PRACAS with nearly 48,083 tons of fruits, vegetables and cereals produced of which 3,966 tonnes of green beans, melons, sweet corn, etc. intended for export.

From a social point of view, the project contributes to improving food security through the promotion of market-oriented agriculture. Also, the project contributes to the development of natural resources in groundwater to establish efficient and ecologically sustainable agriculture.

From an environmental point of view, the project encourages the use of organic amendment and raises awareness among producers to reduce the use of chemical fertilizers. This involves the establishment of biodigesters on farms where producers have livestock.

### **Needs of beneficiaries:**

Senegal is a country exposed to climatic hazards: droughts (often associated with locust invasions), floods, heat waves, sea level rise and coastal erosion. The main sectors of the economy are affected, with the agricultural sector occupying the majority of the population and the most vulnerable ones. The country is characterized by a high volatility in the growth of agricultural Gross Domestic Product (GDP) between 2000 and 2012. The 2011 and 2014 droughts affected respectively 850,000 and 640,000 persons while the off-season rains of January 2002 generated estimated losses of about \$ 41 million. The Government of Senegal which is part of the LDCs has developed several strategies to deal with these hazards, but the resources are limited. In the agricultural sector in particular, there have been several projects and programs during the last decades. These interventions are generally limited in time and so far there have been few successful scaling up experiences due to lack of resources. Besides the financial needs, there is a low level of human capital development and the capacities of institutional actors. Since the adoption of Decentralization act, local authorities are given more responsibilities, including environmental and health management at the commune level. However, this transfer of responsibilities was not accompanied by knowledge transfer or capacity building.

From a social point of view, the definition of the project activities and the selection of the number of farms to be developed were done through stakeholder consultations. The main needs identified from the consultations are as follows:

- Installation of hydraulic and energy infrastructures;
- Job creation ;
- Development of poultry and arboricultural sectors;
- Strengthening of technical capacities.

These identified needs were used to design the activities and the components of this project.

The resources expected from the GCF will remove some of these barriers/needs and scale up the potential of modern agriculture through the different activities of the project.

### **Country ownership :**

In the face of the pressure of population growth and rural-urban migration, agriculture is widely recognized as an effective means of ensuring job creation, food security, poverty alleviation and economic recovery. The Senegalese government has put agriculture at the heart of the country's development strategy. This is confirmed by the important place reserved for the development of the sector in the Plan Sénégal Émergent (PSE). In order to meet the expectations placed on agriculture by the PSE, which has made it one of the priority sectors for emergence, sustainable responses will have to be made to fight the various constraints on the development of this sector that keep the communities in extreme poverty. These responses partly stem from the reinforcement of adaptation strategies implemented at different scales. It is also this strong ambition for the agricultural sector that reflects the development objectives recorded in the country's Nationally Determined Contribution (CDN). The adaptation options proposed in the NDC are articulated around two main axes: (i) the change of agricultural production systems and (ii) the strengthening of institutional capacities. In the context of the change in the production system, it may be noted: (i) the conservation of phyto-genetic resources, the development of new climate resilient crop varieties as well as the improvement of existing ones (ii) the adoption of more efficient irrigation and water conservation systems; (iii) the development of agroecology; (iv) the promotion of family and village farms as well as emerging agricultural areas in all areas; regions of Senegal. For institutional capacity building, activities such as training, awareness raising and support to institutions are planned.

The Programme of Relaunching and Accelerating the Pace of the Senegalese Agriculture (PRACAS in French acronym) also include adaptation measures in terms of sustainable management of resources and development of resilience. As part of the New Alliance for Food Security and Nutrition (NASAN in French acronym), there is also a diversity of actions which are in line with those planned under this project: (i) the preservation / restoration of the production factors, (ii) the promotion of diversified, competitive and sustainable irrigated agriculture (iii) sustainable improvement of rainfed agriculture productivity, (iv) technical and research capacity building, including agricultural advice, (v) promotion of sustainable land management (SLM) practices, through a programmatic and multisectoral approach by 2026. From an operational point of view, several programs and projects are considered by the NDC. Among those, it may be noted the activities and projects planned by ANIDA through the establishment of "Naatangué" farms and other infrastructures for the realization of the planned actions.

Therefore, this project aligns well with priorities defined through national strategies and programmes and this will ensure its ownership by national stakeholders. Also, throughout the development of the concept note, the NDA and the relevant institutions and organizations were engaged to ensure that their concerns were fully taken into account in the definition of project activities.

### Effectiveness and efficiency:

The effectiveness and efficiency of the project lies in the fact that:

1. in view of the results obtained in the pilot phase, it will be easy to gain the support of producers, which is a guarantee of efficiency in the interventions;
2. the choice of ANIDA as executing agency is based on its expertise in the field and is a cost-effective option because it will allow the project to benefit from the support of all their teams and expertise in the establishment of integrated farms and agronomy. This choice also makes it possible to use existing resources and experiences to improve the effectiveness of the project. This is reflected in the development of interinstitutional collaboration with the ministries involved in the implementation of the project. Also, the synergies created with the previous interventions in the identified areas maximize the presence at the local level insofar as the project will be implemented on the basis of invested resources;
3. Project intervention in areas initially foreseen by the ANIDA Strategic Plan will improve the effectiveness of the project through the use of existing resources and experiences;
4. Synergies are found with previous interventions through the valorisation of the gains of these experiences in the first component of the project. Indeed, the project will participate to complete the objectives of the previous interventions and which, due to lack of investment and lasting and sufficient involvement, could not be achieved.

## C. Indicative financing / Cost information (max. 2 pages)

### C.1. Financing by components (max ½ page)

Please provide an estimate of the total cost per component and disaggregate by source of financing.

Component	Indicative cost (USD)	GCF financing		Co-financing		
		Amount (USD)	Financial Instrument	Amount (USD)	Financial Instrument	Name of Institutions
Composante 1	7,978,182	7,280,000	Grant	698,182	Grant	ANIDA
Composante 2	900,000	900,000	Grant			
Composante 3	301,818	301,818	Grant			
Composante 4	820,000	820,000	Grant			
<b>Indicative total cost (USD)</b>	<b>10,000,000</b>	9,301,818	Grant	698,182	Grant	ANIDA

For private sector proposal, provide an overview (diagram) of the proposed financing structure.

### C.2. Justification of GCF involvement (max 1/2 page)

Senegal is among the least developed countries (LDCs) and has many development priorities. Despite strong political will, the Government of Senegal does not have resources that meet the challenges and priorities. ANIDA was set up in order to bring a modern, diversified agriculture, based on the control of water and be a jobs provider, with a financing of the Government of Senegal of two billion francs CFA per year (approximately \$ 360,000 per year). The agency has so far been able to develop 221 modern farms that have proved their effectiveness by increasing the income of producers, reducing the amount of importation of certain speculations, a better control of the water resource.

This success has increased the demand which is 200 per year and that the Agency can not satisfy with the actual resources. The resources of the GCF will therefore complement those of the Government of Senegal and will enable ANIDA to better respond to demand and to scale up this innovative model.

### C.3. Sustainability and replicability of the project (exit strategy) (max. 1/2 page)

"Naatangué" farms have been successfully tested since 2008 in all regions of Senegal. Through this model, families and communities have been able to find and diversify their income-generating activities. The wide adoption of the farm model is confirmed by a growing demand from communities for the installation of "Naatangué" farms. Experience has already proved its replicability.

The sustainability of the model is also ensured because the experience is driven not by a project but by a permanent institution, ANIDA. The Agency has several regional directorates that allow it to ensure permanent and close monitoring of the activities of the installed farms and the sustainability of the infrastructures. The financing of operations by banks, the involvement of local authorities and the transparency of farmers' identification and selection procedures are

elements that reflect sustainability.

A sustainability and exit plan will be developed in collaboration with all project stakeholders and beneficiaries. The implementation of this plan will start 12 months before the end of the project.

#### **C.4 Stakeholders engagement in the project or programme (max ½ page)**

This concept note was prepared based on ANIDA's experience in response to the real needs of producers and local authorities and through interactions with these actors. Subsequently, it was submitted in response to a call for proposals issued by the accredited entity, CSE, in collaboration with the NDA of Senegal. The development of the concept note also included working sessions with the authorities in charge of the management of targeted territories. Indeed, local and administrative authorities, deconcentrated services and local populations have participated fully in the process of establishing and operating farms. Meetings were also organized between ANIDA's technicians and the administrative and local authorities, the local technical services. ANIDA has thus often been invited by the administrative authorities to participate in Local Development Committees (CLDs) in order to collect the views of the different actors. The outcome of these meetings helped to defining the speculations to be produced, the mode of marketing of the products, the financing strategy, the farm management methods, the land area that need to be deliberated, the distribution of the incomes, etc.

#### **C.5 Monitoring and Evaluation and reporting plans (max ¼ page)**

The project's monitoring and evaluation will be organized at two levels. Firstly, the monitoring and evaluation that relates to project activities. ANIDA as executing agency, will supervise the work of the construction companies in accordance with the contents of the technical specifications. Agreements will be signed between CSE which is responsible for the fiduciary management of the project and the executing agency (ANIDA). In this context, prior to each disbursement, the Executing Agency shall provide a report on the use of resources previously provided by the accredited entity. Also as part of the monitoring and evaluation of project activities, a logical framework will be developed with disaggregated monitoring indicators taking into account environmental, social and gender aspects. A monitoring and evaluation plan will also be developed and will allow monitoring of all the indicators initially defined in the logical framework for each component and will be done by the Project Management Unit (PMU) on a regular basis. A monitoring and evaluation system composed of the central level and zonal coordination will be responsible for implementing the monitoring and evaluation plan. This mechanism will be reinforced by the recruitment of a monitoring and evaluation officer for the project.

At CSE level, there will also be an overall monitoring and evaluation of the project. As an accredited entity, CSE will oversee the overall implementation of the Monitoring and Evaluation Plan developed by the PMU and the partners in accordance with the procedures established by the GCF and CSE itself. All institutions involved in the implementation of activities will be involved in the results-based management process by preparing quarterly progress reports in a standard format. The annual progress report will provide a detailed overview of each indicator. The project will be subject of at least two (2) independent external evaluations: a mid-term evaluation and a final evaluation. This will allow measuring the degree of achievement of the expected results.

Also, a national project steering committee will be established and will be responsible for validating the Work Program and Annual Budget (WPABs) as well as the reports produced (including the semi-annual reports prepared by the PMU) in the framework of the project. This informs the project implementation situation and provides suggestions / recommendations.

### **D. Annexes**

- ESS screening check list (Annex 1)
- Map indicating the location of the project/programme (as applicable)
- Evaluation Report of previous project (as applicable)

## Annex 1: Environmental and Social Screening Checklist

### Part A: Risk Factors

The questions describe the “risk factors” of activities that would require additional assessments and information. Any “Yes” response to the questions will render the proposal not eligible for the Simplified Approval Process Pilot Scheme. Proposals with any of the risk factors may be considered under the regular project approvals process instead.

Exclusion criteria	YES	NO
Will the activities involve associated facilities and require further due diligence of such associated facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities involve trans-boundary impacts including those that would require further due diligence and notification to downstream riparian states?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities adversely affect working conditions and health and safety of workers or potentially employ vulnerable categories of workers including women, child labour?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities potentially generate hazardous waste and pollutants including pesticides and contaminate lands that would require further studies on management, minimization and control and compliance to the country and applicable international environmental quality standards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities involve the construction, maintenance, and rehabilitation of critical infrastructure (like dams, water impoundments, coastal and river bank infrastructure) that would require further technical assessment and safety studies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the proposed activities potentially involve resettlement and dispossession, land acquisition, and economic displacement of persons and communities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities be located in protected areas and areas of ecological significance including critical habitats, key biodiversity areas and internationally recognized conservation sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities affect indigenous peoples that would require further due diligence, free, prior and informed consent (FPIC) and documentation of development plans?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities be located in areas that are considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Part B: Specific environmental and social risks and impacts

Assessment and Management of Environmental and Social Risks and Impacts	YES	NO	TBD
Has the AE provided the E&S risk category of the project in the concept note?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the AE provided the rationale for the categorization of the project in the relevant sections of the concept note or funding proposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there any additional requirement required by the country?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are the identification of risks and impacts based on recent or up-to-date information?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Labour and Working Conditions	YES	NO	TBD
Will the proposed activities expected to have impacts on the working conditions, particularly the terms of employment, worker’s organization, non-discrimination, equal opportunity, child labour, and	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

forced labour of direct, contracted and third-party workers?			
Will the proposed activities pose occupational health and safety risks to workers including supply chain workers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Resource Efficiency and Pollution Prevention</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Will the activities expected to generate (1) emissions to air; (2) discharges to water; (3) activity-related greenhouse gas (GHG) emission; and (5) waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the activities expected to utilize natural resources including water and energy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Will there be a need to develop detailed measures to reduce pollution and promote sustainable use of resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Community Health, Safety, and Security</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Will the activities potentially generate risks and impacts to the health and safety of the affected communities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will there a need for an emergency preparedness and response plan that also outlines how the affected communities will be assisted in times of emergency?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will there be risks posed by the security arrangements and potential conflicts at the project site to the workers and affected community?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Land Acquisition and Involuntary Resettlement</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Will the activities likely involve voluntary transactions under willing buyer-willing-seller conditions and has these been properly communicated and consulted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Biodiversity Conservation and Sustainable Management of Living Natural Resources</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Will the activities likely introduce invasive alien species of flora and fauna affecting the biodiversity of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the activities have potential impacts on or dependent on ecosystem services including production of living natural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Indigenous Peoples</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Will the activities likely to have indirect impacts on indigenous peoples?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will continuing stakeholder engagement process and grievance redress mechanism be integrated into the management / implementation plans?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Cultural Heritage</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Will the activity allow continuous access to the cultural heritage sites and properties?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will there be a need to prepare a procedure in case of discovery of cultural heritage assets?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Sign-off:** *Specify the name of the person responsible for the environmental and social screening and any other approvals as may be required in the accredited entity's own management system.*