

**PROJECT DOCUMENT SEYCHELLES**

**Project Title: Upscaling of Climate Smart Agriculture in Val d’Endor Farming Community and la Digue Island in Seychelles**

**ATLAS Project Number: 00110809**

**Implementing Partner:** Val d’Endor Farmers Association

**Key Stakeholders:** Ministry of Agriculture and Fisheries, Ministry of Environment, Energy and Climate Change, Seychelles Agricultural Agency, Public Utilities Corporation, Val D’ Endor Farmers Association and United Nations Development Programme (UNDP)

Start Date: 15 June 2018 End Date: 31 December 2020

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| **BRIEF DESCRIPTION** |
| The Climate Smart Agriculture (CSA) pilot program that is coordinated by the Common Market for East and Southern Africa (COMESA) is part of a regional undertaking involving five (5) Member States (MS). The other Member States are Kingdom of ESwatini (ESwatini), Madagascar, Uganda and Zimbabwe. The new program will be implemented during the period 2018-2020. The programme is funded by the EU under the Intra Africa, Caribbean and Pacific countries (Intra ACP) Global Climate Change Alliance plus (GCCA+) programme. The three-year project with an estimated funding requirement of Euro 409,090 is being designed to up-scale successful lessons from the COMESA Pilot in Seychelles; to popularize the CSA concept at the national level as part of the Ministry’s wider strategy for food security and promoting sustainable livelihoods. A total of around 160 farmers will be targeted with the Val d’Endor Project. An additional 15 farmers will be covered; comprising of 10 farmers at Bonne Espoire while 5 farmers will be from La Digue Island. The project foresees the construction of 5 large concrete water tanks providing communal water storage capacity of about 1,600,000 litres in total with centralized control system to regulate the flow of water to individual farms; provision of irrigation equipment and polythene pipes and fittings for water distribution network; provision of irrigation equipment on demonstration farms; rehabilitation of water catchments through planting of seedlings of indigenous species; provision of solar water pumps and installation of solar PV to reduce the cost of operations and so ensure sustainability of the project; capacity building and exchanges between beneficiaries of the pilot projects and the current beneficiaries will be undertaken during the project; and energy audit of all farms will be undertaken to establish the baseline on water consumption, yield and energy use at the start of the project and monitored to record the changes with the implementation of the CSA measures. Knowledge products will be produced as well as exchanges with established farmers and the Baie Ste Anne Farmers Association that benefitted from the previous pilot project.The project builds on the need to further strengthen sustainability and to up-scale efforts initiated under the Seychelles COMESA CSA pilot to strengthen and build resilience of the agricultural practices in Seychelles by addressing the needs of the largest farming community of Val d’Endor region of Baie Lazare district on Mahe island and La Digue island which has a population of around 4,000 inhabitants. Both projects will create synergies with other ecosystem-based and climate change adaptation projects ongoing in Val D’Endor (UNDP Ecosystem Based Adaptaton to Climate Change in Seychelles) and the EU-UNDP Global Climate Change Alliance Project) on La Digue.The programme is a follow up on the previous GCCA project that was implemented during the period 2014 -2016 targeting the farming community of Baie Ste Anne on Praslin Island. The main objective was to pilot an integrated and ecosystem-based water resource management approach to increase the resilience of farming communities on the Baie Ste Anne Praslin plateau by addressing fresh water demand and supply during periods of drought as part of an integrated approach to climate smart agriculture. The main achievements from the previous project included the following: Component 1 focused on provision of storage for fresh water from rainwater & river harvesting. Components 2 and 3 provided for the improvement in the efficiency of water usage on local farms through rainwater harvesting and drip irrigation while Component 4 piloted ecosystem-based adaptation to rehabilitate the La Hauteur watershed to enhance and regulate water flow which the farming community depended. Components 5 and focused on knowledge sharing and capacity building, which was achieved through exchange visits between the Baie Ste Anne farmers and a Lead farmer on the main island on Mahe. This served as a demonstration farm on how to use proper irrigation and fertigation techniques as well as various cultivations techniques. In Seychelles, the new programme will focus on ‘Water Smart Farms” project, which seeks to promote water efficiency on farms, whilst reducing energy consumption, which in turn has a cascading effect of positive impacts and smart agricultural techniques and control of salt water intrusion and adaptive management. The project will also introduce crop varieties and adaptive species and exchanges. Use of solar energy will also be promoted as it will not only make good business sense but help to reduce the use of fossil fuel pumps and contribute to lowering the carbon footprint on the farms. The project will be implemented in the Val d’Endor which is the largest farming community in Seychelles. The main stakeholder will be the Val d’Endor Farmers Association as well as other water users in the surrounding Val d’Endor farming community. Exchanges will also be undertaken with a smaller community on la Digue Islands with regards to adaptation to climate change The following Key results will be achieved with the Project:Result 1: Community Water Storage is improved through establishment of water storage tanks. Result 2: Water use efficiency on local farms is improved through use of solar energy-driven drip irrigationResult 3: The Bon Espoir source is rehabilitated using ecosystem-based adaptation methods with enhanced and regulated water flows for downstream farming communities Result 4: Implementation and sustainability of “water smart farms” technology is enhanced through knowledge sharing arising out of South-to-South Cooperation Triangular Cooperation (SSC/TrC)Technical Support and backstopping will be provided by the Seychelles Agricultural Agency, Ministry of Fisheries and Agriculture and the Public Utilities Corporation. |

# GRANT SUMMARY:

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| **Programe period: 2017-2020****Project: 2018-2020(36 months)****Key results Area (SP) SS1 (Poverty Eradication)****ATLAS Award ID 00112163****Atlas Project ID 00110809****Stared Date: 1 July 2018****End Date 31 December 2020****LPAC Meeting date** **Management Arrangements NIM (with CO support to NIM)** | Total Resources required (EURO)  | **739,090** |
| Total resources allocated (EURO) | **UNDP TRAC** | **0.00** |
|  | Donor | **409,090** |
|  | Government (Parallel EBA Project) | **300,000** |
|  | In kind  | **30,000** |
|  | Un funded |  |

Agreed by (signature (s):

|  |  |  |
| --- | --- | --- |
| Government of SeychellesSignature: | UNDPSignature: | Implementing Partner: Val d’Endor Farmers AssociationSignature |
| Antoine MoustachePrincipal Secretary (Agriculture)Ministry of Agriculture and Fisheries | Christine N. UmutoniUNDP Resident RepresentativeMauritius/Seychelles | Mr. Danny AgathneChairperson of Val d’Endor Farmers Association |
| Date:  | Date | Date |

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# LIST OF ACRONYMS AND ABBREVIATIONS

COMESA Common Market for East and Southern Africa

CBO Community Based Organization

CSO Civil society organization

CSA Climate Smart Agriculture

EBA Ecosystem-based Adaptation

EMPS Seychelles Environmental Management Plan

GEF Global Environment Facility

GoS Government of the Seychelles

IP Implementing Partner

MTEF Medium Term Expenditure Framework

MEECC Ministry of Environment, Energy and Climate Change

NDP National Development Plan

NSA Non-State Actors

NDC Nationally Determined Contributions

NIM National Implementation Modality

NGO Non-Government Organization

PMU Project management Unit

PUC Public Utilities Corporation

PSC Project Steering Committee

SIDS Small Island Developing State

SDGs Sustainable Development Goals

SCCS Seychelles Climate Change Strategy

SAA Seychelles Agricultural Agency

SNAIP Seychelles National Agriculture Investment plan

S4S Sustainability 4 Seychelles

SGP Small Grants Programme

TOR Terms of Reference

TRASS Terrestrial Restoration Action Society of Seychelles

UNFCCC United Nations Framework Convention for Climate Change

UNDP United Nations Development Programme

VDFA Val d’Endor Farmers Association

#  I. DEVELOPMENT CHALLENGE

## Background

Seychelles is a small equatorial archipelago composed of 155 islands in the Western Indian Ocean. Forty – two (42) granitic islands (including the biggest Mahé, Praslin and La Digue islands) with a rugged central range of hills, are called ‘inner islands’, whilst the rest is of coralline origin, named ‘outer’ islands. Humidity is uniformly high, and average temperatures at sea level range from 24 to 32°. Recent meteorological data shows that with on-going climate change the drought periods may become longer and the frequency of extreme weather, including torrential rains, may increase. Because of its long geological history of isolation, the region to which Seychelles belongs has been classified as one of the world’s “hottest biodiversity hot spots”. Seychelles, with a population of near 94,000 inhabitants, is a now a high-income Small Island Developing State (SIDS) whose main resources are tourism and fisheries. It faces the typical constraints of a SIDS; *viz:* small area and population, limited skilled human resources, diseconomies of scale, remoteness from major markets, limited arable land, and land use conflicts, scarce natural resources and vulnerability to natural disasters, especially in a context of climate change and climatic variability.

Seychelles has a diverse and robust portfolio of environment and climate change related strategies, policies and regulations providing an increasingly enabling environment for the climate change sector. The Seychelles Climate Change Strategy (SCCS) was formulated in 2009 to prevent and reduce the potential impacts of climate change on the country's development. The SCCS is articulated around the conclusions of Seychelles second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC). More recently in 2015, Seychelles articulated its climate change strategies in the Nationally Determined Contributions (NDC) which set preliminary guidelines for mainstreaming climate change into sustainable development as a national cross-sector programme addressing matters of policy, institutions, and capacity building. However, a detailed operational budget disaggregating the cost of the implementation plan, and a sequenced allocation of resources consequently in a medium- term expenditure framework, are missing.

The Seychelles Sustainable Development Strategy (SSDS) 2012-20 is another substantial and more recent policy framework also covering the climate change sector (its major chapter in financial terms). Following the previous Seychelles Environmental Management Plan (EMPS) [2000-10] the SSDS 2012-20 is the national instrument setting implementation priorities for sustainable development in line with Agenda 21. One of the key limitations of the SSDS is a weak integration with other economic and sector programmes under implementation, and a lack of sequenced chronogram with intermediate strategic objectives and milestones in the medium term.

The Government of the Seychelles (GoS) leads the response to the climate change challenge, authoring and endorsing reform policies and strategies, involving domestic actors including non-state actors (NSA), enabling increasing participation of the private sector in the implementation of the SCCS /SSDS, and engaging in dialogue with donors, showing control and leadership in modernization reforms on public financial management and good governance, accountability and environmental sustainability. Despite the various policy documents and strategies designed to address climate change in a holistic manner, there is still a lack of a coherent plan and medium-term expenditure framework linked to on-going macro-economic reforms and integrating climate change actions into sectoral plans and strategies. This is now being addressed by the ongoing EU GCCA+ national project which started in 2017. The implementation of this project will help to address some of the policy incoherence at the local level and mainstream climate change concerns into the agricultural sector development, while sustaining and improving livelihoods and supporting food security efforts.

The Val d’ Endor area at Baie Lazare is one farming community that is often experiencing irrigation constraints. Baie lazare is the biggest agriculture area on Mahe (not in terms of size of farms but in terms of area). Agricultural land covers about 1/3 of the watershed and there are 95 farmers in Val d’ Endor, using freshwater for crop irrigation. There is no meter system in the Val d’ Endor watershed to estimate the amount of water used daily by farmers. The irrigation systems used by farmers, range from overhead sprinklers and mini-sprinklers to drip and rainfed. It is important to note that currently the majority of farmers in the selected areas of intervention are using sprinkler systems. Drip irrigation remains the least used option, despite being a better water-saving technology. The majority of farmers have expressed apprehension of using drip irrigation, simply because of the cost and scepticism about its benefits. As a result, the current irrigation practice indicates that there is room for improvement with regards to water conservation. SAA provides water for irrigation to the majority of farmers and it is estimated that 20-25% of farmers in Val d’ Endor obtain water directly from the river, but they have to get permission from Public Utilities Corporation (PUC). Illegal obtaining of water does occur in Seychelles. The main river of the water catchment is the Baie Lazare River, which comprises of some 23 tributaries from spring sources. The river is used mainly for water supply (domestic use and irrigation), rather than for recreational uses. The catchment has a total area of 3.6 km, with three main hills around the watershed: Maravi at 221m on the south-east, Mont Parnel at 378m on the south west and Le Desert at 330m in the north-west. There are 427 parcels in the Val d’ Endor watershed out of which 130 parcels are state land and 297 parcels are privately owned. The total area designated for agriculture amounts to 56.9 acres. Based on the Ministry of Land Use and Housing land use plan, approximately 60% of the watershed is composed of forest, while 30% goes to farming activities and the rest is residential area. In addition, the project will be rolled out to the 3rd most inhabited island of la Digue. Replication will be for rain water harvesting as well as irrigation techniques and addressing salt water intrusion given the similar terrain and soils composition. The close proximity between the island of Praslin and La Digue will be useful for further exchanges and lessons learned.

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## Agriculture and forestry

Agriculture, characterized by small farms with an average size of 0.75 ha and rarely exceeding 2 ha, makes a poor contribution to the national economy. Currently about 600 registered farms are dispersed throughout the major granitic islands of Mahé, Praslin and La Digue, where they are found on both coastal plains and the uplands. Out of an evaluated potential of 3,100 ha, 600 ha only are under some form of agricultural production, and only 200 are under intensive cultivation. Farm land is either leased from the State or privately owned. In addition, an estimated 1/3 of the national households practice some form of agricultural production through a sort of “backyard farming” (estimated to the equivalent of a total of 45 ha vegetable and fruit crops). As a whole, Seychelles imports over 70% of its food needs. Current agricultural production meets less than 1% of the local demand for beef, 7% for pork, 60-65% for vegetables and fruits, 12-15% for broiler poultry, and 100% for eggs. The agricultural sector employs around 3,200 persons and currently accounts for about 2.9% of GDP.

The high dependency on food imports results in a loss of much of the indigenous knowledge and skills in the human-natural interactions, and makes Seychelles highly vulnerable in the event of any disruption on global food markets. Most of the indigenous fruit and vegetable have disappeared and the standard food basket is mostly composed of imported highly processed products. Therefore, within the limited potential (much of the land has been pushed out of agricultural use by topography and the pressure for human settlements and tourism activities), the government of Seychelles places priority on the optimization of local food production systems, which could contribute to the strategy of the country to face a possible human or natural disruption in the global food supply system. Building a complementary national food system based on local ecological and socio-economic potentialities is a top priority for the country, which aims at increasing food security.

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## Climate Change Challenges and Impacts in Seychelles

As a Small Island Developing State (SIDS), the republic of Seychelles is vulnerable to the impacts of climate change and climate variability, and it gives priority concern for adaptation to climate change. Given that the Republic of Seychelles is a net sink, its contributions to climate change mitigation contribute towards the objectives of the UNFCCC. The Government of Seychelles considers adaptation to climate change as a high priority to reduce the country’s vulnerability. The cost of achieving the implementing the adaptation contributions (2030) has been estimated to be at least USD 295 million.

Seychelles has embarked on its Third National Communication to the UNFCCC, which will eventually produce updated findings with respect to climate change trends and projected impacts. For now, existing data from the Second National Communication must be used to guide planning for climate change. The main climate change threats facing Seychelles are similar to those threatening other small island developing states: *viz*: changes in rainfall patterns leading to flooding, landslides on one hand and extended periods of drought on the other, increases in sea temperature, changes in acidity and damage to marine ecosystems, increases in storms and storm surges, and sea level rise during the longer term. Research is needed to better understand changes in cyclone patterns, ocean and air currents, and the interplay between climate change and other climate phenomena such as El Niño.

The threats caused by climate change will have significant impacts on Seychelles in the short, medium and longer term on infrastructure, agriculture, fisheries, tourism, energy and water security, biodiversity, waste management and on human health and well-being. Although the exact impacts are not known, and more research is needed to better understand the implications of a change global climate on the islands, it is critical that Seychelles takes measures to better understand the threats and begin longer-term planning for adaptation. All national plans and strategies that address climate change adaptation consistently mention Seychelles’ shortfalls in terms of capacity building and research. The National Climate Change Strategy (2009) addresses this specifically and, although some progress has been made, it was highlighted at the stakeholder workshop that improved gender-sensitive capacity building, research and education was needed to underpin all climate change adaptation efforts in order to make them effective and resilient.

A Vulnerability/Resilience Profile exercise undertaken in Seychelles in preparation of the SAMOA SIDS Conference of 2014 revealed that Seychelles was most vulnerable and least resilient in terms of biodiversity resources and sustainable consumption and production (both with significant implications for climate change adaptation) the tourism industry (the country’s crucial economic sector) and food security. Other areas of concern were sea-level rise, coastal and marine resources, water security and energy security. Major areas of vulnerability include the following:

* Critical Infrastructure (roads, ports, government buildings, electricity, water and sewerage management systems);
* Tourism (in proximity to the coast or in areas vulnerable to flooding and landslide);
* Food Security (currently reliant on food imports, and need support for local sustainable and climate-smart agriculture and fisheries efforts);
* Coastal and Marine Resources (considering the aims of the Blue Economy and Seychelles Strategic Plan 2015);
* Water Security (particularly considering issues of storage and distribution);
* Energy Security (particularly considering the reliance on fossil fuels);
* Health (particularly addressing the burden placed on high-density populations in the coastal areas and general vulnerability to climate-sensitive diseases);

## CSA practices and technologies in Seychelles

Seychelles is currently adopting ecosystem-based approach to climate change which is geared towards increasing water supply for agriculture. Both the previous COMESA Project on Praslin as well as ongoing UNDP EBA projects are focusing on adaptation of the water sector to climate change. Integrated water management is being proposed as the most cost-effective solution to support climate smart agriculture. The lessons learned on Praslin Island will be valuable for the implementation of this project.

The irrigation problem in Val d’Endor area is of two-fold; (i) scarcity of water during drier months and (ii) abstraction is often costly due to electrical pumping. Rainfall patterns indicate that the area remains relatively dry for most part of the year, with December to February being the wettest months. As previously mentioned, the current irrigation practice in the vicinity of Val d’ Endor is direct extraction from the nearby stream, with very few farms harvesting and storing rainwater. The region is characterized by a valley with relatively steep gradient of red laterite soil, which fairly dictates the type of agriculture practiced in this area. The sloppy nature of the terrain also means that some farms have to pump water against gravity, to reach their crops. The major issues of la Digue are water harvesting and storage as well as salt water intrusion and flooding. Linkages will be explored with the ongoing GCCA Adaptation Project funded by the EU for La Digue which is addressing soil salinity measurements and recommendation on mitigative measures.

The proposed project will be promoting the concept of Water Smart farms which will combine the water resource management and efficiency with energy efficiency measures. The project will promote Water Smart farms which are combining water efficiency measures and techniques combined with renewable energy technologies and energy efficiency practices at throughout the production cycle. Reduction in fossil fuels as well as overall energy consumption, is expected to have a cascading effect of positive impacts on production, adoption of smart agricultural techniques and control of salt water intrusion and adaptive management and introduction of crop varieties and adaptive species and exchanges. Use of solar energy will also be promoted as it will not only make good business sense but help to reduce the use of fossil fuel pumps and contribute to lowering the carbon footprint on the farms thus contributing to the objectives of the NDC and Seychelles international commitments to the Paris Agreement and UNFCCC.

## Lessons learned

The COMESA CSA project implemented in Seychelles, (2014-2016), successfully piloted integration of climate adaptation and climate smart agriculture (CSA) practices and technologies into agricultural production systems in a small community of farmers at Baie Ste. Anne on Praslin Island. The project entitled “ *“Piloting integrated water resource management to increase the resilience of farming communities on the Baie Ste Anne Praslin plateau by addressing fresh water demand and supply in periods of drought as part of an integrated approach to climate smart agriculture*” was successful in addressing mainly the supply of water to farmers of Baie Ste Anne during the dry season as well as undertaking - based adaptation to climate change by rehabilitation of upland watershed and water catchment on Praslin. New and improved irrigation techniques as well as use of shade housing to reduce evaporation and conservation of water was introduced together with water harvesting practices to augment their water supply and storage. Construction of water tanks consisted a major component of the project as well. The CSA pilot project transformed the practices and livelihoods of around 25 farmers in the Baie Ste Anne Community and contributed to improved livelihoods. Technical exchange with a Lead Farmer operating on a more commercial scale on the main island of Mahe was part of the project and it created a good network for exchanges beyond the COMESA project as the farmers further enhanced their skills on irrigation as well as other farming techniques to combat for example salt water intrusion as a result of increased sea level infiltrating into the low-lying acquirers and water tables. The implementation of the project did generate some useful lessons for future upscaling, which is now being proposed for upscaling to the other larger farming communities on Mahe Island. The pilot project provided valuable lessons which can be summarized as follows:

**Table 1: Summary of Key Lessons Learned from pilot CSA Project**

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| **Description** | **Recommendation** |
| Timely disbursement of funds  | In future for such small projects, all funds should be disbursed as a lump sum. Delays in receiving the balance implied that some of the activities were delayed |
| Better estimates of costs | In future, costing for such projects should be done using real costs as it showed that budget allocated were not sufficient and project was trying to achieve too many outputs for the amount available in the overall budget. Budget re-allocation had to be undertaken during monitoring visits |
| Project monitoring of the members/farmers | Support supervision visits by the COMESA team should have been more frequent to allow increased capacity building efforts such as formal training sessions of the members of the association in various project management and monitoring techniques. It is only through such approach that we can help to build more capacity of such NGOs and CBOs. |
| Switch from open field to greenhouse cultivation | During the final mission of COMESA, members of the Association requested for support to construct green houses as they have seen the benefits of such practices both from the Lead farm as well as from a smaller scale by some of the members on Praslin. The Association will endeavour to have green houses on most of the farms engaged in cultivation through mobilization of additional resources. The Association will also undertake data collection to compare the results from current open field to greenhouse alternative as well as impact of increase water supply provided by the project. |
| Limited marketing opportunities | Another valuable lesson learned during the final monitoring of the project was the issue of market linkages. Given the small size of the Praslin market, some farmers were finding it difficult to dispose of their produce at profitable prices. Future such projects could also consider the feasibility of establishing local economic development networks at the project design stage which would allow the farmers to get their produce to the main Island of Mahe at competitive prices. It would be a great boost for the farmers and ensure longer term financial sustainability of such projects, while improving their livelihoods. |
| Ecosystem-based adaptation of water catchments | Such interventions take a very long time to see results so it cannot be evaluated after a year or even 2 years of project implementation. There should be alternative measures and indicators used to evaluate such activities which often produces results after 8 to 10 years. |

In addition to the above lessons from the previous COMESA Project, the following lessons were learned with respect to CSA and ecosystem-based adaptation to climate change:

* Community involvement is a key component for the success of such intervention as it will ensure community ownership and sustainability
* Establishing a proper baseline at the start of the project will facilitate monitoring and project evaluation
* Involvement of beneficiaries/stakeholders in project design and ongoing monitoring is crucial as it allows for easy implementation of any adaptive management measures

# II STRATEGY

## Project Alignment

This project is fully aligned with national strategies both at national and sectoral levels. It will contribute to the Sustainable Development Goal as well as Seychelles Nationally Determined Contributions to Climate Change (NDC), which identified that the threats caused by climate change will have significant impacts on Seychelles in the short, medium and longer term on infrastructure, agriculture, fisheries, tourism, energy and water security, biodiversity, waste management and on human health and well-being. Efforts to adapt and mitigate these adverse effects in Agriculture is considered a national priority.

The provisions of the SNCCS highlights climate smart agriculture as a response to climate change adaptation strategies which needs to be rolled out. The project is also in line with thematic areas of the Environmental Management Plan 2012-2020 which focuses on sustainable land management and integrated water resource management measures to adapt to changing land use as well as rainfall patterns and impact on food security. The draft National Development Strategy under preparation for 2018-2022 identified vulnerabilities to climate change as one of the critical challenges that require structural shifts and innovative solutions of which CSA is one.

The project is in line with the Seychelles National Agriculture Investment plan (SNAIP) 2014-2019 of the Ministry of Fisheries and Agriculture and the Seychelles Sustainable Development Strategy 2012 -2020. Building on various national and sector development strategies and plans, the SNAIP consolidates and harmonizes existing agriculture, food security and nutrition related policies, programs and regulatory frameworks into a comprehensive national agricultural development plan. The SNAIP sets the priorities for the 5-year period, as a basis for defining the spending budget under the Medium-Term Expenditure Framework (MTEF). One of the key activities of the SNAIP lists the increase of ha under agroforestry by mid-2016 to 200 ha. The project is also line with the national water management master plan. Throughout the development phase of the project we have been in constant communication with the farmers and relevant authorities and the initiative fits in well with PUC’s plans to promote rainwater harvesting, particularly in critical areas such as Val d’Endor, associated with high water usage and limited rainfall. The project also relates to the Seychelles National Climate Change Strategy, which emphasizes the need to enhance community participation in climate change mitigation measures and the need for community outreach programmes.

## Theory of change and Intervention logic

The Seychelles agricultural sector faces multi-faceted challenges that often impedes or slows its growth and development. These challenges or constraints, range from natural, technical, managerial and attitudinal aspects. A recent study conducted under the CLISSA project (funded by IFAD) reported that while some of these problems could be rectified with low cost interventions, other would need more strategic reframing and capital investment. One of the most pertinent issues that continue to plague most farming communities in the country, is irrigation. Irrigation related problems are typically associated with high-energy bills, accessibility to water supply and water use efficiency. Government has entrusted the Public Utilities Corporation (PUC) with the full mandate to manage and regulate use of the country’s water resources. However, agriculture has not been identified as one of the main sectors to which water needs to be primarily allocated. This has created major challenges when it comes to irrigated farming and in most cases, irrigation policies and programmes administered and managed by the Seychelles Agricultural Agency (SAA) is seriously constrained by this position.

Climate Change adaptation is now at the forefront of the government strategy as building community capacity is key in building necessary resilience to climate changes especially in the agricultural sector which impacts on food security. As stated in the intended nationally determined contributions, the Government considers adaptation and mitigation to climate change a top priority to reduce the vulnerability of Seychelles. Measures to move away from reliance on fossil fuel will be explored as means to reduce energy bills and reduce the carbon footprint, as economic performance is closely linked and highly susceptible to fluctuations in fuel prices. Additional measures will be needed to ensure energy security while reducing the energy bill. Low-carbon development paths, which will contribute to greenhouse gas reduction, must be explored and promoted using appropriate technologies. Building resilience and capacity for disaster risk reduction remains a high priority. Issues of climate change need to be addressed with a social element, as the risk posed to livelihoods, and female headed households, could lead to further impoverishment of farmers and fishers. The main pillar and thrust of the current programme is the poverty-environment nexus, recognizing the dependence of the economy at large – as well as large segments of the population – on environmental services. Inclusive development and climate change adaptation and mitigation go hand in hand and are mutually supportive, as expressed in government vision and development strategies. Climate change, inclusiveness, social protection, gender equality and women’s empowerment are important components to support the implementation of national priorities, in line with achieving sustainable development outcomes and leaving no one behind, which are closely linked to the sustainable development goals and the Samoa Pathway.

## Strategic Interventions

A 3-year project with an estimated funding requirement of Euro 409,090 is being designed to scale up successful lessons from the COMESA Pilot in Seychelles and to popularize the CSA concept at the national level as part of the Ministry’s wider strategy for food security and promoting sustainable livelihoods. The project builds on the need to further strengthen sustainability and to scale up efforts initiated under the Seychelles COMESA CSA pilot to strengthen and build resilience of the agricultural practices in Seychelles by addressing the needs of the largest farming community of Val d’Endor region of Baie Lazare district on Mahe island and La Digue island which has a population of around 4000 inhabitants. Both projects will create synergies with other ecosystem based and climate change adaptation project ongoing in Val d’Endor (UNDP Ecosystem Based Adaptation to Climate Change in Seychelles) and on La Digue (EU-UNDP Global Climate Change Alliance Project)

The project aims to upscale CSA in Seychelles through upscaling from lessons learned from the Baie Ste Anne Project as well as including additional innovative techniques and sustainable practices. A Total of around 160 farmers will be concerned with the Val d’Endor Project and an additional 20 on La Digue Island. Capacity building and empowerment of farmers will be crucial to success of project. Based on lessons learned, water storage will be built using concrete as fibre-glass tanks although cheaper comes with a high maintenance cost.

# III OBJECTIVES, RESULTS AND PARTNERSHIPS

## Project Objective

The primary objective of the project is to improve water management in farming communities by reducing the water and energy consumption in agriculture. This will in turn lead to increased agricultural production and productivity and bring farming communities in the country, one step closer to having ‘’green’ or environmentally sustainable farms.

## Specific objective

The specific objective of the project is to roll out the concept for the ‘Water Smart Farms”, which seeks to promote water efficiency on farms, reduced soil salinity, whilst reducing energy consumption.

The objective and specific objectives will be achieved through the project results highlighted below.

## Project Results

The project will aim to undertake the following interventions indicated as Result 1 to 3 as follows:

**Result 1:** Water storage on local farms is improved through construction of community water storage tanks

This Result will focus on improving water storage for the community in the Val d’Endor region. This region suffers extended periods of drought which affect the ability of the farmers to undertake meaningful agriculture during a great part of the year. Due to unavailability of a steady supply of water, these farmers stop growing crops during the dry season. The major outputs under this Result will be the provision of centralized water storage systems. The project will construct 5 water storage tanks each with a capacity of 320,000 litres of water, thereby providing a total capacity of 1,600,000 litres of water. The tanks will feed existing producing small farms; that mostly deal in the production of root crops such as sweet potatoes, bananas, cassava, as well as seasonal vegetables such as beans and cucumber. The availability of this water storage system will also reduce the need for farmers to use water from boreholes which is contaminated from salt intrusion. This water storage system will able to supply fresh water to 95 farmers for a period of over 6 months.

Below are the indicators or progress and the activities

**Indicators of progress**

* Number of tanks built
* Percentage increase in capacity of water storage

**Activities**

1.1 Initiate procurement (Design terms of reference, advertise for architect, obtain quotes, Prepare technical drawing and approval by planning Authority)

1.2. Obtain approval of site plan by community/planning authority

1.3. Finalise Procurement Process (Engage Contractor for construction of tanks, Contract negotiations and Contract signature)

1.4. Construction of 5 water tanks (Commissioning of the works and Monitoring/Supervision)

**Result 2:** Water use efficiency on local farms is improved through the establishment of solar energy-driven drip irrigation

The use of drip irrigation is known to have the ability to reduce water use by 60 to 70 %. It is targeted to the root and is considered to be highly effective at supplying one to four gallons of water per hour, directly to the soil. The major advantage of drip irrigation over sprinklers is that there is little water loss due to evaporation or run-offs. Farmers within the community who are using drip irrigation have reported an increase in water efficiency due to localized, targeted watering of crops. Furthermore, drip irrigation reduces the amount of soil and mulch that is washed away, in comparison to sprinklers. Consequently, this decreases the amount of nutrient loss. Additionally, drip irrigation also provides a means of fertigation, which is the combined process of irrigation and adding fertilizers to the soil. In view of the fact that this type of irrigation targets the root zone, the surrounding area remains drier, thus discouraging the growth of weeds and invasive species. As a result, less time is required for weeding and eliminating unwanted plants.

The goal of this Result therefore is to increase the water efficiency of the Val d’ Endor farming community through controlled water application for irrigation. The project will promote sustainable water and energy use practices amongst farmers. This will consequently lead to increased crop productivity, reduced run-offs, hence less soil erosion and also promote more ‘green farm” practices. In order to strengthen the use of sustainable energy use of solar energy will be promoted. This not only makes good business sense but also helps to reduce the use of fossil fuel pumps and contributes to lowering the carbon footprint on the farms. The drip irrigation system will use solar energy-driven. Efficient use of water will lead to greater food security in the context of the changing climate.

Training and building capacity of farmers on irrigation techniques, rain water harvesting and fertigation will also be undertaken as was the case with the pilot project. Audits will be conducted to establish the ‘before and after’ effect of installing the new irrigation system. These will include collected data on water and energy usage, crop yield and soil analysis.

The summary of the indicators of progress and planned activities is shown below.

**Indicators of Progress**

* Number of audits completed
* Number of Systems installed
* Number of farmers trained on drip irrigation, rainwater harvesting and fertigation
* Number of farmers using the drip irrigation system
* Percentage increase in the yield/income arising out of drip irrigation

**Activities**

The main activities will be the following:

2.1. Undertake Water audit of farms to establish baselines for pre-project and post project evaluation

2.2 Carry out on-site measurements with technical advice

2.3. Procure and install Solar pumping system for community water storage tanks with central control

2.4. Procure and install Drip Irrigation system on all selected farms

2.5. Conduct training for farmers and other beneficiaries on drip irrigation, rainwater harvesting and fertigation

**Result 3:** Implementation and sustainability of “water smart farms” technology is enhanced through knowledge sharing arising out of South-to-South Cooperation Triangular Cooperation (SSC/TrC)

This will be organized with exchange visits on a Lead successful farm operating on a more industrial scale. Improvement water catchment and improvement of watershed will also be undertaken through replication of ecosystem based adaptation and replanting of indigenous species and control of invasive in water catchments. Close collaboration with the Community Watershed Committee for Val d’ Endor will be maintained to ensure that stewardship of water sources in the is maintained and enhanced.

**Indicators of progress**

1. Number of Knowledge Products produced such as brochures, 'water smart farms' leaflets, Radio and television spots, documentary of project activities
2. Number of exchange visits and CSA practices exchanged

**Activities**

The main activities will include exchange visits between the various farming communities.

* 1. Produce and disseminate Knowledge Management products
	2. Organize 4 visits between the islands
	3. Conduct yearly workshops involving all the project beneficiaries
	4. Conduct 2 visits to the Lead farmer on Mahe from previous COMESA CSA project

## Resources Required to Achieve the Expected Results

The implementation of the Upscaling of the Val d’Endor Project will be funded primarily by COMESA with resources amounting to Euro 409,090. Parallel financing under the Adaptation Fund Project – Ecosystem Based Adaptation estimated at Euro 300,000 will contribute to the improvement of water storage in the project area. This will be under implementation oversight by UNDP. In-kind contribution of Euro 30,000 is committed to the project which will consist mostly of staff time as well as facilities made available to the Project Management Unit. Technical support will be provided by the Seychelles Agricultural Agency as well as the Public Utilities Corporation and the Seychelles Energy Commission. Extension Services of the Ministry of Agriculture and Fisheries will provide additional training and support to the farmers in the use of irrigation techniques.

## Project Risks

The project risks are highlighted in the table below. The mitigation measures are also highlighted in the last column.

**Table 2: Project Risks**

| **Risks** | **Likelihood** |  **Mitigation**  |
| --- | --- | --- |
| 1. Low capacity of the Association to manage the funds and implement the project
 | Low | Capacity Building Sessions will be undertaken upfront with members of the Association and all beneficiaries to ensure clear understanding of the project and buy-in from the outset.UNDP will train the Association members in financial management aspect (HACT/Financial reporting). A Project Coordinator/Manager with some UNDP/Financial management experience will be hired.  |
| 1. Delays in obtaining planning permission for construction
 | Moderate | Ensure that the Planning Authority is part of the Project Board and early submission of documents with support of the Parent Ministry. (Ministry of Fisheries and Agriculture). This will ensure timely approvals.Regular project meetings will be held with key partners to resolve any bottlenecks. |
| 1. Low involvement of key stakeholders such as the PUC for issues related to water.
 | Low | Involvement of the key stakeholders in the LPAC Meeting and conduct one-on-one meetings to fully appraise them of their key role in the project. This will ensure full stakeholder buy-in and participation in project at LPAC and throughout implementation. |
| 1. High cost of construction could result is construction of smaller tanks
 | Moderate | Market research for similar works to be undertaken before putting out tender documents. This will ensure that the Project keeps within allocated budgets and no cost-overruns. |
| 1. Unpredictable weather patterns could delay construction
 | Moderate | Prepare alternative scenarios and ensure project stick to the timeline as much as possible. Explore alternative types of tanks if possible such as fibre glass tanks as was used on the pilot project |
| 1. Delays in disbursements could halt project activities
 | Low | Timely submission of all reports to COMESA to ensure timely disbursements. Close monitoring of the project expenditure to ensure timely replenishments |

## Partnerships and Stakeholder Engagement

The following key partners will be involved in the implementation of the project and synergies and partnership will be sought with the following ongoing projects

1. UNDP will be the Executing Agency for the project. This will follow on to the previous experience with implementation of the COMESA CSA project in Praslin and working at community level. In addition, the project will partner with the UNDP on-going Ecosystem Based Adaptation Project funded by the Adaptation Fund and being implemented by UNDP through the Programme Coordinating Unit which is focusing on increasing the water storage in Val d’Endor. The Project has already started with the construction of a larger barrage which will feed into the community. The GCCA+ project will focus on farming activities and the farming community.
2. The Ministry of Agriculture and Fisheries will be the Implementing Partner for the Project and will be responsible for the financial management of the Project. MAF will sign a Project Document with UNDP and shall nominate a National Project Director who shall chair the Steering Committee of the Project. MAF will sign an MOU with the Val d”Endor farmers Association for execution of project activities.
3. The Val d’Endor Farmers Association will be a “Responsible Party” and will be the implementing day to day activities outlines in the project document.
4. The Ministry of Environment Energy and Climate Change and the Public Utilities will be other key partners in the project and will sit on the Project Board. The Baie Lazare District Administration will also be a key partner. The main NGO that will be involved with be S4S as well as Terrestrial Restoration Action Society of Seychelles (TRASS). Synergies will be built with ongoing S4S projects funded under the GEF-SGP as well as with TRASS under the EBA project for forest rehabilitation and energy audits. Linkages with the GEF project on resource efficiency will be explored for the acquisition of water and energy efficient appliances.

## South to South Cooperation Triangular Cooperation (SSC/TrC)

South-South Triangular Cooperation (SSC/TrC) is one of the strategies that will be employed for knowledge exchange and learning. This will be facilitated at the national level through exchanges with the various farming communities in Mahe, Praslin and La Digue Island. Exchanges between the Praslin farmers and La Digue will be organised as well as between La Digue and Mahe. As was undertaken under the pilot project, exchanges with a Lead farmer on Mahe will be explored for the VDFA and La Digue farmers to learn more on irrigation techniques and water efficiency measures as well as mitigating soil salinity.

## Knowledge Management and Sharing

Policy reform for enhanced CSA, agriculture production will be informed through the development of reports and briefs that will be researched as well as informed by the baseline and terminal evaluation assessment, for presentation to decision-makers in the agriculture sector. Exchange visits between farmers will assist draw lessons to inform management of the community schemes development model as well as accessibility and effective management of project infrastructure and resources. Production of promotional materials and visibility materials will be shared via various means of communication to the wider community as well as the decision makers. Close link with ongoing ecosystem based adaptation to climate change of the UNDP-EBA project will be sought. Production of joint communications materials will be explored and the Project Manager will be invited as observers to the EBA Project Steering Committee for information sharing and vice-versa.

## Sustainability and Scaling Up

The project is a scale-up from the pilot implemented at Baie Ste Anne for the Baie Ste Anne Farmers Association. The focus will now be on scaling up the similar project to a much wider farming community on Mahe which is responsible for a significant proportion of local produce. Project sustainability will be enabled at both institutional and community levels through an Exit Strategy which will be developed and implemented under the project. In particular, linkages with the EBA Adaptation Project which has already established a Watershed Committee consisting of farmers as well as other community members will ensure the sustainability and maintenance of the proposed infrastructure. Similar to the pilot phase, all the initiative needs will be identified working with and through partners and communities, in particular rural farmer schemes. The schemes governance capacities will be promoted through development of guidelines and protocols and other tools by the participants. All interventions delivered will have clear timelines, gender and exit strategies that will be defined at the beginning of the project to ensure that there is continuity post-project support.

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and fora. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyse, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

# IV. PROJECT MANAGEMENT

The programme will be implemented with UNDP on the basis of the Standard Letter of Agreement signed between COMESA and UNDP.

## Inception Phase

The project will commence with an inception phase which will be organized not later than 2 months following signature. Some pre-implementation activities such as launching the project, identifying and meeting with the beneficiaries, preparing the Communication and Visibility plan, baseline surveys and pre-implementation audits will be completed. During this period and once a competitive bidding process has been undertaken and the construction costs of the tanks fully established as well the transportation costs and siting costs (which will vary for each tank) security costs ; then the support for Bon Espoir area will be added including tree planting.

During this phase the Implementing Partner will review the work plan and consider the possibility of including an intervention for the rehabilitation of the Bon Espoir source using ecosystem-based adaptation methods with enhanced and regulated water flows for downstream farming communities. This will include, among others, the planting of trees in the area. The implementing partner will provide an Inception report to COMESA at the end of the first quarter of implementation. The M & E framework will also be updated taking into consideration collection and analysis of gender disaggregated data (to be updated).

## The Roles of the Key Stakeholders

**UNDP:** On the side of UNDP, the project will be implemented through the National Implementation Modality (NIM) through a project agreement signed between UNDP and Val d’Endor Farmers Association. Prior to signing of the project document, UNDP will undertake a HACT Micro Assessment of the Ministry of Agriculture and Fisheries as part of the 2018 HACT Micro Assessment and Spot Checks. UNDP will use the direct payment modality for transactions until the micro-assessment is completed. Direct payments (RDPs) will also be used where appropriate to effect overseas payments as well as large payments so as to manage the NEX advances. UNDP will be responsible for recruiting a Project Manager for the day-to-day running of the project. He/she will act as secretary to the Project Board and will be the liaison with the VDFA. UNDP will organise all evaluations in close collaboration with COMESA and the project partners.

**COMESA:** COMESA will commission all necessary evaluations and undertake project visits and perform any audits as required. COMESA will hire auditors and independent evaluators as required for the project. Terms of Reference (TOR) for evaluations and audits will be shared in advance. COMESA will coordinate with UNDP any monitoring missions and participation in regular project review meetings/briefings on the project status. All such missions will be coordinated by the UNDP office.

**Ministry of Agriculture and Fisheries:** The Ministry of Agriculture and Fisheries will nominate a National Project Director who will also Chair the Project Steering Committee. The NDP will be responsible for certifying all financial reports FACE Forms) as well as all payments through RDPs and requesting advances. The Ministry will open a separate bank account to manage the project and make necessary advances to the Val d”Endor farmers Association. The Ministry will be a member of all evaluation committees to evaluate any tender or recruitment of consultants under the project. All contracts will be signed by the National Project Director.

**Government**: Government of Seychelles will be represented by the Ministry of Agriculture and Fisheries, the Ministry of Environment, Energy and Climate Change, and the Seychelles Agricultural Agency and the Public Utilities. These will be members of the Project Board.

**GEF-UNDP-GOS Programme Coordinating Unit**: The Programme Coordinating Unit will also be a member of the Project Board and the PM will work closely with the PIT team of the EBA Project. The PM of the EBA and/or the Programme Coordinator will be members of the Project Board.

**Project Steering Committee**: A Project Steering Committee (PSC) will be set upfor the overall guidance and technical orientation of the programme. It will monitor progress of the project components, with the role of reporting and trouble shooting. The Project Manager of the Project Management Unit (see below) shall be secretary to the PSC and will be responsible for the preparation of all documentation prior to the PSC meetings.

The PSC composition will be as follows:

* Ministry of Agriculture and Fisheries (Chair)
* United Nations Development Programme
* Val D’Endor farmers
* The MEECC,
* Baie Lazare District Administration,
* Sustainability for Seychelles
* TRASS
* Public Utilities Corporation
* Seychelles Agricultural Agency
* Programme Coordinating Unit
* EBA Project

The Project Manager will ensure that all documents for meetings will be circulated to all members at least 1 week prior to the meeting. This shall consist of minutes of last meeting, Agenda, and/or progress update and any other matters, as relevant. The Project Manager shall act as the Secretary to the Project Steering Committee and he/she shall take minutes of proceedings which shall be circulated to all members not later than 2 weeks after the meeting. The Terms of Reference of the PSC is attached as Annex A

A Project Manager will be recruited. The UNDP offices in Mauritius and Seychelles will recruit a national Project Manager based on UNDP recruitment policies. Terms of reference for the Project Manager is provided as Annex C. He/She will be funded under the budget line 'Project Management Costs’.

In addition, UNDP will recruit both national and international technical experts for the implementation of the project if requested by the Ministry of Agriculture and Fisheries. . Terms of reference for the missions/experts to implement the various technical activities of the project, and detailed specifications for the supplies and works foreseen under the project will be prepared by the Project Manager in consultation with the Ministry and cleared by the UNDP and COMESA.

# V. RESULTS FRAMEWORK

| **EXPECTED RESULTS** | **INDICATORS** | **DATA SOURCE** | **BASELINE** | TARGETS (by frequency of data collection) | DATA COLLECTION METHODS & RISKS |
| --- | --- | --- | --- | --- | --- |
| **Value** | **Year** | **Year 1(2018)** | **Year 2****(2019)** | **Year 3****(2020)** |
| **Result 1: Community Water Storage is improved through establishment of water storage tanks.**  | Number of tanks built | Project Reports | 0 | 2017 | 1 | 2 | 2 | On-site monitoring and physical verification |
| % increased water storage capacity | Project Reports | Xcm3  | 2017 | O change | X cm3 | X cm3 | On-site monitoring and water measurement |
| **Result 2: Water use efficiency on local farms is improved through use of solar energy-driven drip irrigation** | Number of audits completed | Project Reports | 0 | 2017 | 160 audits  |  |  |  |
| Number of Systems installed | Project Reports | 0 | 2017 | X systems installed | X systems installed |  | Physical verification |
| Number of farmers trained on drip irrigation, rainwater harvesting and fertigation (disaggregated by gender) | Project Reports | 0 | 2017 | 95 farmers trained | 95 farmers trained |  | Workshop attendance sheets/reports |
| Number of farmers using the drip irrigation system | Project Reports |  |  | 95 | 95 |  |  |
| Percentage increase in the yield/income arising out of drip irrigation | Project Reports |  |  | 25 | 60 |  |  |
| **Results 3: Implementation and sustainability of “water smart farms” technology is enhanced through knowledge sharing arising out of South-to-South Cooperation Triangular Cooperation (SSC/TrC)** | * Number of Knowledge Products produced and disseminated: such as brochures, 'water smart farms' leaflets, Radio and television spots, documentary of project activities
* Number of exchange visits and CSA practices exchanged
 |  |  |  | 31 | 43 | 42 |  |
| **Communication and Visibility**  | * Number of visibility and communication events
* Number of publications
* Number of documentaries produced and disseminated
 | Websites etc  |  |  | 20 | 32 | 32 |  |
| **Project Administration** | PMU officials in place (Number)  | Project Reports |  |  |  |  |  |  |
|  **Project Oversight** | Baseline study on climate smart initiatives and project indicators | Project Baseline Report |  |  |  |  |  |  |
| Number of monitoring visits conducted/Project Launch | Project Reports |  |  |  |  |  |  |
| Number of Project Steering Committee meetings held | Project reports |  |  | SC meeting held | SC meeting held | SC meeting held |  |

# MONITORING AND EVALUATION

Project monitoring and evaluation will be conducted in accordance with established UNDP procedures. The Project logframe (Project Results Framework) above provides *performance* and *impact* indicators for project implementation along with their corresponding *means of verification*. These will form the basis on which the project's Monitoring and Evaluation (M&E) system will be built. The following sections outline the principle components of the Monitoring and Evaluation Plan and indicative cost estimates related to M&E activities. The project's Monitoring and Evaluation Plan will be presented and finalized at the Project's Inception Workshop/Meeting following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

The project will be monitored through the following M&E activities. The M&E budget is provided in the table below.

## Project start-up

A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organization structure, UNDP country office and MAF as well as the VDFA and the Project Board and other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first-year annual work plan.

The Inception Workshop will address a number of key issues including:

1. Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO, MFA staff *vis à vis* the project team and VDFA. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
2. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
3. Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
4. Discuss financial reporting procedures and obligations, and arrangements for annual audit.
5. Plan and schedule Project Steering Committee meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Steering Committee meeting should be held within the first 6 months following the inception workshop.

An Inception Phase Report is a key reference document and will be prepared and shared with participants to formalize various agreements and plans decided during the starting up period of the project.

## Progress Reports

Progress Reports will be prepared by the PM every 6 months and will be used as the basis for the Project Steering Committee. Reports will be both narrative as well as financial. The reports will be circulated to members of the PSC at last 2 week in advance. This annual report will be prepared to monitor progress made on an annual basis. It will monitor progress of implementing activities, absorption of funds as well as progress towards achieving the targets of the indicators in the Results Framework.

## Periodic Monitoring through site visits

UNDP CO and the COMESA will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the UNDP CO and will be circulated no less than one month after the visit to the project team and COMESA..

## Mid-term of project cycle

The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation. The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course of correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation. It will also highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project’s term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document

## End of Project Reporting

An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and COMESA guidelines. The final evaluation will focus on the delivery of the project’s results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the COMESA and shared with UNDP for inputs.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project’s results.

**Table 5: Monitoring Plan**

| Activity | Purpose | Frequency | Expected Action | Partners | cost |
| --- | --- | --- | --- | --- | --- |
| Track results progress | Ensuring project implementation is on track | Quarterly  | Review progress and propose alternative /adaptive management measures | UNDP, COMESA, Ministry of Agriculture, Val d’ Endor farmers Association |  |
| Monitor and Manage Risk | Ensuring project risk are managed early and implement management responses | Quarterly | Review Risk and propose management actions | UNDP, COMESA, Ministry of Agriculture, Val d’ Endor farmers Association |  |
| Learn  |  | Annually |  |  |  |
| Annual Project Quality Assurance | Project assurance and quality control | Quarterly and Annually | Review progress and propose alternative /adaptive management measures | UNDP, Val d’’Endor Farmers Association |  |
| Review and make Course Corrections | Monitoring implementation | Annually | As required | UNDP, COMESA, Ministry of Agriculture, Val d’ Endor farmers Association |  |
| Project Report | Reporting to COMESA on Project activities | Annually, and at the end of the project (final report) | Reporting to donors and requesting for additional disbursement/providing Financial reports and substantive reports | UNDP, Val d’Endor Farmers Association |  |
| Project Review (Project Board) | Steering project and decision-making process on project implementation | Annually | Conduct Project Steering Committee on a 6-months basis | UNDP, COMESA, Ministry of Agriculture, Val d’ Endor farmers Association |  |

**Table 6: Audit and Evaluation Plan**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Evaluation Title | Partners (if joint) | Planned Completion Date | Key Evaluation Stakeholders | Cost | Source of Funding |
| Annual Review |  |  |  |  |  |
| Annual Audit |  |  |  |  | COMESA |
| Mid Term Evaluation |  |  |  |  |  |
| Terminal Evaluation |  |  |  |  |  |

# MULTI YEAR WORK PLAN

The summary multi-year work plan is presented in the table below. The detailed work plan is attached as Annex B.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **EXPECTED RESULTS**  |  | **PLANNED ACTIVITIES** | **Indicator** | **Overall** **Programme** **Target** | **Planned Budget by Year** | **Total (EURO** |
|  |  | Y1 | Y2 | Y3 |
|  |  |
| **Inception Phase** |   |   |   |  |
|  | **A** | Project Inception Workshop | Inception phase completed | Inception phase completed | 5,000 |   |   | **5,000** |
|  | **B** | Project Design Process | Project design completed | Project design completed | 13,000 |   |   | **13,000** |
|  |  | **SUBTOTAL Inception Phase** |  |  | **18,000** |  |  | **18,000** |
| **Result 1: Community Water Storage is improved through establishment of water tanks** |  |  |  |  |
|  | 1.1 |  Initiate procurement (i) Design terms of reference, advertise for architect, obtain quotes (ii)Prepare technical drawing and approval by planning Authority  |  Procurement process commenced, ToRs developed, Advertisements and quotations obtained, evaluation completed  |  Procurement process commenced, evaluation of bidders completed by September 2018  | 0 | 0 | 0 | 0 |
|  | 1.2 |  Obtain approval of site plan by community/planning authority  |  Approval obtained  |  Approval obtained for the sites where the tanks will be constructed  | 0 | 0 |   |   |
|  | 1.3 |  Finalise Procurement Process (i) Engage Contractor for construction of tanks (ii) Contract negotiations (iii) Contract signature  |  Contractor engaged Negotiations completedContract signed  |  Contractor engaged Negotiations completedContract signed  | 0 | 0 | 0 |   |
|  | 1.4 |  Construction of 5 water tanks(i) Commissioning of the works(ii) Monitoring/Supervision  |  (i) Works commisioned (ii) Number of storage tanks constructed  |  (i) Works commissioned (ii)5 water storage tanks constructed  | 118,000 | 60,000 | 20,000 | 198,000 |
| SUBTOTAL |  |  | **118,000** | **60,000** | **20,000** | **198,000** |
| **Results 2: Community Water Efficiency improved through the use of solar driven drip irrigation (and EBA approaches)** | 2.1 |  Undertake water audit of farms to establish baselines for pre-project and post project evaluation  |  Number of water audits undertaken  |  160  | 8,792 | 0 | 0 | 8,792 |
| **2.2** |  Carry out on-site measurements with technical advice  |  On-site measurements undertaken  |  On-site measurements completed  |  |  |  |  |
| 2.3 |  Procure and install solar pumping system for community water storage tanks with central control  | Number of solar pumping systems installed  |  One (1) system installed  | **0** | **14,000** | **18,000** | **32,000** |
| **2.4** |  Procure and install Drip Irrigation systems on all the selected farms  |  Number of drip irrigation systems installed  |   | **0** | **14,000** | **16,000** | **30,000** |
| **2.5** |  Conduct training for farmers and other beneficiaries on drip irrigation, rainwater harvesting and fertigation  |  (i) Number of training sessions delivered(ii) Number of farmers and other beneficiaries trained on drip irrigation, water harvesting and fertigation (disaggregated by gender)  |  Three (3) training sessions175 farmers trained (disaggregated by gender)  |  | **4,964** | **0** | **4,964** |
|   |   | **SUBTOTAL RESULT 2** |  |  |  | **32,964** | **34,000** | **66,964** |
| **BON Espoir Component 2A** |  |  |  |  |
|  | 2.6 | Establish baseline water flows at pre-planting stage |  |  | 0 | 0 | 0 |  |
|  | 2.7 | Purchase equipment and supplies for tree planting activities |  |  | 2,500 | 2,500 |  | 5,000 |
|  | 2.8 | Procure seedlings from nurseries around the country and transportation to sites |  |  | 5,000 | 4,500 |  | 9,500 |
|  | 2.9 | Plant selection for various sites based on experience of growth rates and survival rates  |  |  | 0 | 0 |  |  |
|  | 2.10 | Mobilize volunteers from the community and organization of tree planting sesions |  |  | 1,200 | 1,200 | 2,000 | 4,400 |
|  | 2.11 | Monitor water flows after post planting and ruing life time of project) part of M&E 4.2) |  |  | 7,936 | 4,949 | 6,000 | 18,885 |
|   |   | **SUBTOTAL RESULT 2A** |  |  |  |  |  |  |
| Results 3: Implementation and sustainability of “water smart farms” technology is enhanced through knowledge sharing arising out of South-to-South Cooperation Triangular Cooperation (SSC/TrC) | 3.1 | Knowledge management product, brochures, water smart farms leaflets and exchange visits, radio TV spots etc. |  |  | **2,000** | **4,500** | **5,000** | **11,500** |
| 3.2 | Undertake Exchange Visits with lead farmer |  |  | **1,000** | **4,500** | **5334** | **10,834** |
| **SUBTOTAL 3** |  |  | **3,000** | **9,000** | **10,334** | **22,334** |
| **4. Project Administration/Management** |  |  Monitoring & Evaluation  | Undertake monitoring and evaluation to measure efficiency gains against established baselines  |  Monitoring and evaluation and baselines established  | 2,000 | 2,000 | 2,500 | **6,500** |
|  |  Project Management  |   |   | 3,600 | 7,200 | 7,200 | 18,000 |
|  | SUBTOTAL |   |   | **5,600** | **9,200** | **9,700** | **24,500** |
| 5. Audit  |   | Audit | Annual audits undertaken | Annual Audits undertaken | 1,000 | 2,500 | 2,500 | **6,000** |
|   | SUBTOTAL Audit |   |   | **1,000** | **2,500** | **2,500** | **6,000** |
| 6. UNDP Admin Fees (GMS) |   | GMS (7%) |   |   | 12,800 | 9,550 | 6,375 | 28,725 |
|   | Subtotal GMS |   |   | 12,800 | 9,550 | 6,375 | 28,725 |
| **GRAND TOTAL** |  |  |  |  | **181,818** | **136,363** | **90,909** | **409,090** |

# Governance and Management Arrangements

**Project Organisation Structure**

The Implementing Partner will be the Val d’Endor Farmers Association. The overall guidance of the project will fall under the Project Board.

The project will have the following governance structure:

**The Programme Manager**

The Programme Manager will have the following roles and will report to the Board. Under the direct supervision of the UNDP Programme Manager, and in close collaboration with the UNDP Office, the Project Manager will guide the implementation of the activities outlined in the project document and the Work plan. The National Project Manager (NPM) will:

1. Oversee the implementation of the overall project work plan and ensure timely completion of all activities and timely monitoring and evaluation of the project. In doing so, the NPM should work closely with the UNDP Programme Manager and other key ministries and departments and COMESA and VDFA and MFA, to mutually agree upon any adjustments that have to be made to the work plan;
2. Prepare a detailed schedule of project review meetings in consultation with stakeholder representatives and incorporate it in the Project Annual Workplans;
3. Develop a Project Overall Workplan as well as yearly workplan and budgets;
4. Guide the work of consultants and experts and oversee compliance with agreed workplans, time-lines for deliverables;
5. Organize and coordinate the procurement of services and goods under the project;
6. Conduct day-to-day monitoring of implementation progress on the project’s Annual

Work Plan and its indicators;

1. Prepare the Terms of Reference for consultants and experts in consultation with MAF, VDFA, the UNDP office, COMESA as well as the Project Steering Committee; participate in the selection/shortlisting and recruitment of consultant(s) and ensure their timely hiring;
2. Exercise quality control over the consultancies, and stakeholder consultations, ensuring that documents and reports for the PSC are in adequate form;
3. Plan, organize and attend meetings of the PSC, and provide them with necessary documentation on time. Also serve as secretary to the PSC;
4. Serve as the main channel of communications with the selected consultant(s), UNDP and the project beneficiaries;
5. Identify and contact a core group of key multi- sectoral stakeholders from all relevant agencies and organizations to participate in the project as and when required; Identify national expertise and resources that can be drawn upon and assist in the process;
6. Keep detailed records of all proceedings of the consultative process and PSC meetings and the Technical Review Meetings
7. Prepare documentation for all Technical Review Meetings and write the Reports of those meeting;
8. Oversee the administrative and financial performance of the project in collaboration with the UNDP Programme Manager;
9. Coordinate all project activities (e.g. workshop and logistical support), logistics and related disbursements and administrative requirements necessary for the smooth running of the project in partnership with the UNDP Programme Manager;
10. Develop and implement the yearly workplan for submission to the PSC for approval;
11. Review the performance of project activities, monitor key indicators of progress in fulfilment of targets established;
12. Establish an effective project information strategy including provision of relevant information materials to UNDO CO as well as local media as required;
13. Prepare the Annual reports as well as the Final Report to be submitted to the COMESA in close collaboration with the UNDP country office.

**Project Steering Committee**

The project Steering Committee will have the following roles and responsibilities:

1. Provide overall strategic policy guidance for the execution, management, implementation (including quality assurance), supervision, monitoring and evaluation of the project
2. Meet twice a year during project implementation
3. Approve all tender documents, terms of reference before tendering
4. Approve the selection of consultants to be recruited under the project
5. Monitor and validate the work of the consultants recruited under the project
6. Advise on the format for the various training workshops, as well as information sharing with the general public and media about the project
7. Monitor the progress made in the implementation of the project and the results achieved. In this context, receive relevant reports prepared by the project management team
8. Review and endorse the Annual Work Plans, Progress Reports, Mid-term and Final Evaluation as well as Financial Report produced by the Project Management Unit.
9. Perform any other duty that would contribute to the successful delivery of the project.

**Tender Evaluation Committee**

A small Committee comprising of Representative of UNDP, VDFA, PUC and MAF will be established to evaluate all tenders under the projects. The responsibilities of the Tender Evaluation Committee. (TEC) will be as follows:

1. Develop criteria and procedures for reviewing tenders submitted under the project;
2. In accordance with established criteria and procedures, review and recommend to UNDP the approval of all tenders submitted under the project;
3. Participate in site visits/meetings and on-going monitoring and evaluation (M&E) activities associated with the Project, as necessary;

The guidelines and structure of the TEC will be as follows:

1. The UNDP Programme Manager shall chair the Tender Evaluation Committee;
2. The Project Programme Manager will serve as ex officio on the Tender Evaluation Committee;
3. The term of office of each TEC is for the duration of the project;
4. The TEC will meet as and when required;
5. Members of the TEC shall serve on a voluntary basis and without financial compensation;
6. The sub-committee shall as far as possible operate on a basis of consensus;
7. Minutes of all meetings shall be prepared in English and will be submitted to the EU. UNDP and COMESA. Minutes concerning meetings in which tenders are approved should be as detailed and specific as possible, listing each project considered and including all TEC recommendations and/or observations about each tender;
8. The minutes should be signed by all present TEC;
9. Upon accepting appointment to the TEC, members commit themselves to ensuring the complete objectivity and transparency of the sub-committee, both in fact and in appearance;
10. Each member will sign the Declaration of Impartiality Form for each tender evaluated;
11. The NPM should maintain an official record of each TEC meeting.

**Visibility and Communication**

Visibility and Communication will be a fundamental aspect of the project. This not only ensures that project successes are well-captured and presented but it also leads to increased uptake by other areas on the Island as well as the regionally and internationally. The project will generate newsletters, Press Releases, TV spots, Radio talk shows, Flyers/Brochures, documentaries, leaflets as well as visibility/promotional materials such as T-shirts and caps. All these items will bear the right logos for the development partners and implementing partners and wherever appropriate written acknowledgement will be made to the development partners. The project will also use social media platforms such as Face Book and Twitter which could be linked to the existing websites such as the PCU/UNDP websites. Public events such as tree-planting, competitions and national Expos or road shows will offer opportunities for visibility promotion and acknowledgement of the development partners will be ensured. Such outputs will be contracted out as far as practicable.

The role of ensuring effective communication and visibility with be under the Project Manager (PM). The PM will ensure that communication and visibility are integrated in all the project’s activities. He/she will liaise closely with the UNDP Project Officer, the Communications Officers of the Ministry of Agriculture and Fisheries , COMESA, the EU and the ACP Secretariat. In terms of promoting visibility, the PM will have the following roles:

1. Ensure that the website and online resources are kept up-to-date;
2. Ensure that Partner organizations are updated on the all developments;
3. Provide updates on the program implementation;
4. Ensure visibility of the programme, wherever possible (e.g. logos displayed at events, photos and news items submitted to COMESA and added to websites); Provide reports (implementation/evaluation) of a high standard and in a timely manner, thus allowing the project to live up to its claim of being transparent;
5. Promote the project within respective institutions/networks.

# Legal Context and Risk Management

**Legal Context**

1. This document will be guided by he SBAA signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA [or other appropriate governing agreement] and all Country Programme provisions apply to this document.
2. Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP’s property in the implementing partner’s custody, rests with the implementing partner.

The implementing partner shall:

1. Put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
2. Assume all risks and liabilities related to the implementing partner’s security, and the full implementation of the security plan.
3. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

# ANNEXES

1. **Annex 1: Project Report Templates** (to be provided by COMESA)

**Annual Report Format**

The Annual Report shall consist of the following:

Table of Contents

Acronyms and Abbreviations

List of Figures, Tables and Charts

1. Executive Summary
2. Partnerships
3. Objectives
4. Project Financial Performance
5. Detailed Progress on Project Implementation (activities, indicators, success stories)
6. Lessons and Challenges
7. Recommendations
8. Conclusion

**Quarterly Progress Report structure**

The structure of the quarterly report is given below

**Table 8: Quarterly Report for the period XXX -XXXX 2018**

|  |  |
| --- | --- |
| **Executive summary**:  |  |
| Expected Result | Planned Activities  | Actual Achievements  | Remarks/ Challenges encountered and suggestions on how to address them | Plans for Next quarter |
| Result 1:  | * 1. Activity Action:

Activity Results: | Progress against Output:Progress against indicator: |  |  |
|  | 1.2. Activity ActionActivity Results: | Progress against Output:Progress against indicator: |  |  |
| Result 2: | 2.1: |  |  |  |
|  | 2.2: |  |  |  |
| Prepared by: | Date: | Signature  |  |
| Approved by:  | Date:  | Signature |  |

**Annex B: Detailed Multi- Annual Work Plan**