



**VISION:**

*A resilient and sustainable agricultural sector that enhances food and nutrition security contributes to economic growth and respects the natural environment.*

**Seychelles National Agricultural Investment Plan (SNAIP)**

**2015-2020**

**Implementing the CAADP Framework to transform Seychelles' Agricultural Sector and enhance its performance in supporting the country to attain its goals on food sovereignty, food and nutrition security**

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## FOREWORD

Facilitating and supporting a food and nutrition secure society is at the centre of the Government of Seychelles' commitment and drive for sustainable economic growth, inclusive development and prosperity. Various national sector strategies and policies allude to this commitment. Government has recently (2013) endorsed the country's National Food and Nutrition Security Policy (NFNSP). This has formally elevated the issue of food security and nutrition to a higher multi-sectoral level, with other sectors including Health, Education and above all, Financial and Economic Planning identifying themselves clearly with responsibilities that contribute to achieving desired food security and nutrition levels.

Seychelles could be said to have comparatively limited capacity (land size; ecosystems and topographical, etc...) to produce the quantities and variety of food and non-food agricultural products required to support Government commitment to ensure availability and access to food by all its people. It is against this background that, with a thriving tourism industry, Seychelles has depended on imported commodities in making up its food basket. However, some factors in the global food systems, including the recent hikes and fluctuation in food and energy prices and the pirates in the high seas, have highlighted the challenges and risks that go with depending almost entirely on the global food markets to support the local food basket.

Therefore, within the limited agriculture potential, Government is committed to optimise production and thereby securing accepted levels of availability within the control of Government and in country institutions. It is noted that some level of local agricultural production is critical in supporting Government to improve national resilience in the face of either local and/or externalities which may adversely affect, especially the food supply/availability out of the global food markets. Government is convinced that enhanced local production including in peri-urban home gardens, will not just increase available food, but will also provide the wider range of food commodities to impact on the nutritional quality of available food.

The Government of Seychelles has embraced implementation of the Comprehensive Africa Agriculture Development Programme (CAADP) as a policy framework to facilitate and support desired policy and technical decisions to transform Seychelles' agricultural sector and enhance its performance. CAADP implementation is expected to specially impact through changes in four areas, namely, (a) institutional and human capacity including systems and tools to plan and execute desired investment programmes; (b) enhanced agricultural productivity and production; (c) increased investment financing as well as link to ensuring best returns to agriculture and (d) enabling environment which include alignment and support from national policies

The Seychelles National Agricultural Investment Plan (SNAIP) defines agricultural priorities, goals and outcomes which should bring agriculture to providing desired volumes of production to ensure food is available from local sources in quantities that have significant impact on the resilience of the country to sustain food availability even in the face of challenges which may impinge getting food supplies from the global markets.

The SNAIP is a programme based investment framework. It has five areas and their associated components, while mainstreaming of cross cutting issues as follows:

1. *Protection and Sustainable use of Agricultural Land and Water*
2. *Productivity, Commercialization and Diversification of Crops and Livestock*
3. *Sustainable Fisheries Management and Aquaculture Development*
4. *Food Security and Nutrition*
5. *Human and Institutional Capacity Development*

The SNAIP emphasizes the following core principles:

- Diversifying food production to improve nutrition at household level.
- Managing risks to ensure food stability at national level;

- Promoting agro-processing for value addition and import substitution;
- Building capacities in various public and private institutions involved in the implementation of the SNAIP programmes;
- Promoting good land husbandry practices for soil conservation and improving soil fertility as well as climate smart agriculture, and
- Mainstreaming gender, HIV and AIDS in the SNAIP programs.

Additionally, the SNAIP:

- Is designed to encourage and facilitate the involvement of private sector, farmer organizations and civil society in its implementation
- provides a single comprehensive programme and budget framework;
- has a formalized process for donor coordination and harmonization of management systems and procedures;

The SNAIP, developed in line with the context of the broader national development priorities and goals, provides a framework to foster coherence and alignment across the various sub-sectors, and institutions. The SNAIP provides a national agenda on agriculture and national programmes to produce enough food locally and thereby enhance the country's ability to provide the food and nutrition needs of its people even in times when local and/or external factors may limit or hinder access to global foods sources.

Finally, the government and all stakeholders have to work in a harmonized and consultative manner. I appeal to all public and private sector actors in the agricultural sector for their support and commitment in the implementation of the SNAIP in order for the country to achieve its vision.

This is about making the risk of hunger and malnutrition an almost non-existent possibility for all Seychellois.

Wallace Cosgrow  
MINISTER  
MINISTRY OF FISHERIES & AGRICULTURE

## **ACKNOWLEDGEMENTS**

The Ministry of Fisheries & Agriculture coordinated an evidence-based and highly inclusive process for the formulation of the Seychelles National Agricultural Investment Plan (SNAIP). This exercise was made possible, first and foremost by the resolve and commitment of Government, who through the then Minister for Natural Resources, Hon Peter Sinon, provided the wisdom, inspiration and political will to have this exercise undertaken.

The NEPAD Planning and Coordinating Agency, COMESA and the Food and Agriculture Organization of the UN (FAO) have accompanied the country from the very beginning when CAADP was launched in 2011 through the compact signing and provided intensive technical backstopping to the formulation of the SNAIP.

This work has also been made possible by the many local collaborators who have shown dedication to the agricultural sector including the Government Ministries and other public sector bodies including, the Seychelles Agricultural Agency, the Seychelles Fishing Authority, private sector entities and civil society including the Seychelles Farmers' Association, to whom we are extremely grateful to.

Most importantly, the Ministry wishes to appreciate and thank the farming and fishing communities for the perseverance, their willingness to see things improve and doing so in a frank and open manner so that their messages got through. To them, we are also extremely grateful.

The completion of the Seychelles National Agricultural Investment Plan is not an end in itself but rather only the foundation for a lot more work to be done in the coming years so as to see effective change in the sector, the Ministry therefore takes the opportunity to call on everyone to continue lending their support to the sector and the work ahead so that we may together bring about a greater level of food and nutrition security for our beloved Seychelles.

Michael Nalletamby  
**PRINCIPAL SECRETARY**  
**MINISTRY OF FISHERIES & AGRICULTURE**

## ACRONYMS AND ABBREVIATIONS

|          |                                                           |
|----------|-----------------------------------------------------------|
| AfDB     | African Development Bank                                  |
| AFIA     | Agriculture and Fisheries Incentives Act                  |
| AU       | African Union                                             |
| CAADP    | Comprehensive Africa Agriculture Development Programme    |
| CCA      | Concessionary Credit Agency                               |
| CGIAR    | Consultative Group on International Agricultural Research |
| COI      | Commission de l'Océan Indien                              |
| COMESA   | Common Market for Eastern and Southern Africa             |
| CPF      | Country Programming Framework (CPF)                       |
| DBS      | Development Bank of Seychelles                            |
| DNR      | Department of Natural Resources                           |
| DOE      | Department of Environment                                 |
| DOF      | Department of Forestry                                    |
| DRDM     | Department of Risks & Disaster Management                 |
| EU       | European Union                                            |
| FAO      | Food and Agriculture Organisation of the United Nations   |
| FBOA     | Fishing Boat Owners Association                           |
| GAP      | Good Agricultural Practice                                |
| GDP      | Gross Domestic Product                                    |
| GEF      | Global Environment Facility                               |
| GOS      | Government of Seychelles                                  |
| HIV/AIDS | Human Immune Virus/Acquired Immuno Deficiency Syndrome    |
| IADP     | Integrated Agricultural Development Project               |
| IAS      | Invasive Alien Species                                    |
| ICS      | Island Conservation Society                               |
| IDC      | Islands Development Company                               |
| IFAD     | International Fund for Agricultural Development           |
| IFPMIS   | Integrated Financial and Planning Management System       |
| IFPRI    | International Food Policy Research Institute              |
| IITA     | International Institute for Tropical Agriculture          |
| IMO      | International Maritime Organisation                       |
| IOT      | Indian Ocean Tuna Company                                 |
| IOTC     | Indian Ocean Tuna Commission                              |
| IPM      | Integrated Pest Management                                |
| MCSS     | Marine Conservation Society Seychelles                    |
| MDG      | Millennium Development Goals                              |
| MLUH     | Ministry of Land-Use and Housing                          |
| MFTBE    | Ministry of Finance, Trade and the Blue Economy           |
| MTEF     | Medium Term Expenditure Framework                         |
| NARS     | National Agricultural Research System                     |
| NDP      | National Development Plan                                 |
| NEPAD    | New Partnership for Africa's Development                  |

|       |                                                           |
|-------|-----------------------------------------------------------|
| NPCA  | NEPAD Planning and Coordinating Agency                    |
| NSB   | National Statistics Bureau                                |
| PAT   | Plan d'Aménagement du Territoire (Land Use Plan)          |
| PPP   | Public Private Partnership                                |
| SAA   | Seychelles Agricultural Agency                            |
| SACAU | Southern African Confederation of Agricultural Unions     |
| SADC  | Southern Africa Development Community                     |
| SAHTC | Seychelles Agricultural and Horticultural Training Centre |
| SBS   | Seychelles Bureau of Standards                            |
| SCCI  | Seychelles Chamber of Commerce and Industries             |
| SEnPA | Small Enterprise Promotion Agency                         |
| SEPEC | Seychelles Petroleum Company                              |
| SeyFa | Seychelles Farmers' Association                           |
| SFA   | Seychelles Fishing Authority                              |
| SIB   | Seychelles Investment Bureau                              |
| SIDS  | Small Island Developing States                            |
| SIF   | Seychelles Islands Foundation                             |
| SLA   | Seychelles Licensing Authority                            |
| SLM   | Sustainable Land Management                               |
| SMB   | Seychelles Marketing Board                                |
| SNPA  | Seychelles National Parks Authority                       |
| SPA   | Seychelles Port Authority                                 |
| SPS   | Sanitary and Phyto-sanitary Standards                     |
| SCR   | Seychelles Rupee                                          |
| STC   | Seychelles Trading Company                                |
| UNCCD | United Nations Convention To Combat Desertification       |
| UNDP  | United Nations Development Programme                      |
| VMS   | Vessel Monitoring System                                  |

## **EXECUTIVE SUMMARY**

### ***Introduction***

#### ***Background***

The Seychelles National Agricultural Investment Plan (SNAIP) is a framework that seeks to harmonize, consolidate and accelerate the implementation of the country's agriculture and food security and nutrition related policies and strategies in the period 2015 to 2020. SNAIP sets the country's agriculture and food security and nutrition development for the next five years within the context of the Medium Term Expenditure Framework (MTEF).

Though in most African countries agriculture is the main stay of economic development, the situation is different in Seychelles where the engine for economic development is the tourism sector which accounts for 70% of the foreign exchange earnings and 25% of GDP. Total arable land in Seychelles is estimated at 500 hectares of which 50% is exploited for agriculture (Agriculture Census, 2011). Fisheries are important economic activities, accounting for 5% of GDP, 7% of employment and 35% of total exports. The country has an exclusive economic zone, extending to about 1.4 million square kilometres which is adjacent to one of the world's major tuna fishing zones.

Seychelles imports 70% of its food needs (MDG Status Report, 2013), thereby making it vulnerable particularly to external shocks. Cases in point are the high global food prices in 2008 to 2009 which led to a number of countries to ban food exports, natural calamities such as volcanic eruptions which led to airplanes to stop flying in 2011 on account of the eruption in Iceland. Seychelles' vulnerability is further exacerbated by the diminishing local production of fruits and vegetables which have negatively impacted on the nutrition status of the country's population given the over processed nature of imported foods. Over-weight, a nutrition-related condition is prevalent in Seychelles. According to estimates, 19.3% and 22.7% of boys and girls respectively are overweight (Health of our Nation Report, 2014).

Through SNAIP, government is determined to reduce the country's vulnerability to food security arising from human induced factors as well as natural causes. This is by ensuring increased local production of a wide range of quality food stuffs that would positively impact the nutritional status of the population.

#### ***The Seychelles CAADP Compact***

The Government of Seychelles has embraced the Comprehensive Africa Agriculture Development Programme (CAADP) as a framework through which to develop its agricultural sector to one which adequately supplements food imports, minimizes the country's vulnerability to external shocks related to food imports and promotes production of quality nutritious foods. CAADP's value addition to the country's agricultural sector is envisaged through: strengthening of human and institutional capacity; enhancing adoption of improved technologies; brokering increased investment financing, and; enhancing capacity to deal with national and regional policy issues. The Seychelles CAADP Compact (SCC) was signed on 16<sup>th</sup> September 2011 by relevant representatives from all the key stakeholder groups, namely: Government; Cooperating Partners; the Private Sector; the Civil Society; COMESA; the African Union/NEPAD and Producer Associations. The SCC focuses on five key areas: (a) Protection and Sustainable Use of Agricultural Land and Infrastructure, (b) Agriculture Research, Irrigation and Extension, (c) Sustainable Fisheries Development, (d) Marketing and Trade of Agriculture Produce, and (e) Food and Nutrition Security.

#### ***Linkage to National Economic Growth and Development Agenda***

Though continental in scope, CAADP promotes and focuses on agricultural development through locally driven agricultural policies and strategies, implemented through partnerships of all major stakeholder categories. CAADP optimizes sustainable local production while at the same time building resilience in the local production systems by defining priorities, goals and outcomes. The CAADP framework (and hence the SNAIP) is aligned to Seychelles Medium Term National Development Strategy (MTNDS) now reformulated into the National Development Strategy (NDS 2015-2019). The SNAIP is the basis of the Programme Performance Based Budgeting (PPBB) methodology.

#### *SNAIP: Approach and Methodology*

The development of the SNAIP was launched by Government in 2012 and was a participatory and inclusive process. It was based on analytical work that had been carried out between 2011 and 2013 and involved all major stakeholder categories using locally produced development frameworks such as the NFNSP and the Seychelles Sustainable Development Strategy (SSDS). NEPAD through the NPCA and COMESA provided technical input throughout the process while FAO provided technical support in finalizing the SNAIP results framework, budget and financing gap, among others.

#### *Structure of the SNAIP Document*

The SNAIP is made up of six chapters, focusing on: Introduction, Situation analysis, Main SNAIP elements, Summary budget and financing gap, Implementation framework and Annexes, discussed in sequence below.

### **Situation Analysis**

#### *Macro-economic performance*

Seychelles is an upper middle income country with a GDP per capita of 14,220 (The World Bank, 2013) and a population of close to 90,000. The country's two major economic pillars are tourism and fisheries, fishing and processing. Seychelles heavily depends on imports of raw materials, products and specialized services. For nearly ten years, the country has been importing close to 70% of its food requirements. Fish and fish products are the bulk of the country's exports. Food imports in 2011 were valued at US\$ 87.79 million against food exports of US\$ 40.88 million in the same year, of which 91% were fish and fish products.

Scarcity of land is one of the most critical economic development issues facing the country. The total land size is 455 square kilometres, of which nearly half (46%) is legally protected for conservation purposes.. Agriculture represents less than 1% (0.82%) or 3.75 square kilometres of the total land. The average farmland size is 0.5 ha with a 10 year renewable lease. The undernourished population declined from 11% in 1991 to 7% in 2006 (MDG Status Report, 2013).

#### *Food and agriculture related strategies and partners*

Over the past seven or so years, government has developed and implemented a number of strategies aimed at increasing agricultural and overall economic production. The major ones being the Agricultural Development Strategy (2007 – 2011), and the NDS 2015-2019. . There are seven main partners supporting the agricultural sector, namely; the African Development Bank (AfDB), the Common Market for Eastern and Southern Africa (COMESA), the European Union (EU), the Food and Agriculture Organization (FAO) of the United Nations, the International Fund for Agriculture Development (IFAD), the Global Environmental Facility (GEF)/ United Nations Development

Programme (UNDP) and the International Atomic Energy Agency (IAEA). Currently these partners are supporting various interventions including: agriculture value chains; water demand and climate smart agriculture; aquaculture management plans and the use of nuclear technology to address issues in agricultural production, and agro-forestry.

#### *Agricultural performance and its contribution to national economy*

Unlike in continental Africa where the agriculture sector is the engine for economic growth employing between 60 to 80% of the total labour force, in Seychelles the sector employed 1.0% of the labour force in 2012. Of the three, i.e. primary, secondary and tertiary contributions to GDP, tertiary was the highest at 70.5% (2013) while the other two were 1.9% and 14.1% in 2012 and 2013 respectively.

Government's annual expenditure on agriculture between 2008 and 2010 averaged 3% of its total annual spending, ranging from 2.5% in 2008 to 3.6% in 2010. (The World Bank Report - 2013). Though the proportion trended upwards during the period under review, it is still far below than the 10% recommended by the Maputo Declaration of 2003.

#### *The agricultural sector context*

Between 2000 and 2007, three crops types - fruits, spices and root crops recorded a positive growth of 204%, 176% and 55% respectively (suggesting high potential), while vegetables recorded a negative growth of 54% during the same period. The local production of the major meats (poultry and pork) declined during the period 2006 to 2013. In case of poultry, the production decreased from 65% to a mere 6% of local consumption (from 1,560 to 216 tonnes), while pork production, reduced from 51% to 20% (691 to 496 tonnes) during the same period. Local beef production is minimal, accounting for only 1% of the total consumption. (Seychelles Agricultural Agency, Statistics Unit)

In terms of fisheries, both the artisanal and semi industrial catches declined between 2009 and 2012, from 3,019 to 2,502 tonnes and from 329 to 271 tonnes respectively. On the other hand, the production of canned tuna saw a marginal increase during the same period, from 30,824 to 31,400 tonnes.

#### *Underlying factors for agriculture transformation and growth*

The key underlying factors for agriculture transformation and growth are land administration and land policy; water policy and water management, and infrastructure and market development. In this light the following are some of the issues that need to be addressed; identification of agriculture as one of the key sectors for water allocation, construction of feeder roads and market infrastructure; access to affordable credit; improved drainage;

Three major challenges identified as constraining increased agricultural production and productivity are: (i) underdeveloped value chains and the poor positioning of the various players within the chains; (ii) inadequate appreciation of the agricultural sector due to the over dependency on tourism and fishing industry in generating the bulk of its financial resources, and; (iii) the declining production and productivity of major locally grown crops and livestock on account of inadequate resource allocation.

### ***Seychelles National Agricultural Investment Plan***

#### *Strategy, over-arching approach and guiding factors*

For the SNAIP to be the main framework through which agriculture development (including fisheries) is to be given the prominence it deserves, a number of specific features unique to Seychelles must be taken on board. A few of these are discussed below. *First* the key and immediate drivers for agricultural development in the country need urgent attention. The country needs to develop capacity for resilience to withstand any shock that may affect it on account of exogenous factors. There is also need to expand local food production to increase dietary requirements. *Second*, the implication of the country being a middle income economy needs to be addressed. For instance, the resource mobilization should be primarily from local and international private sector. *Third*, given the constraints already highlighted above, Seychelles cannot avoid importing a considerable proportion of its food requirements. However, this should be carefully balanced with what it can produce in a bid to promote its sovereignty objectives.

#### *The agriculture vision and mission*

The vision of the agricultural sector for Seychelles is: “Local Agricultural Sector as an integral and sound basis for Seychelles’ national ability and resilience to provide for the food security and, nutrition and food sovereignty goals at all times for all Seychellois. The mission is to “Transform local agricultural production and agro-processing systems and capacity to secure minimum local capacity to support the country’s food basket”

#### *The SNAIP goal, objectives and expected results*

*Development Goal:* Seychelles is producing enough food to complement imports and ensure availability of food to meet the country’s food security and nutrition needs and reduce risks and vulnerability in the event of local and/or external factors which may limit or hinder access to global food markets (NFSNP, 2013).

The following are SNAIP’s specific objectives:

- (i) Factors of production (land and water) secured and sustainably used;
- (ii) Factors of productivity (land, labour, capital) in forestry, crops, livestock and fisheries sustainably enhanced;
- (iii) Commodity-specific value chains developed and functioning (including agro-processing and local market linkages);
- (iv) Fisheries and aquaculture revenue is increased while preserving the sustainability of the resource base;
- (v) Facilitate and sustain a favourable legal, policy and institutional environment to enable a private sector driven local agricultural system, providing viable and predictable needs for business as well as social benefits for the public;
- (vi) An appropriate knowledge and technological support system strengthened and supporting enhanced agricultural transformation and performance, and;
- (vii) Institutions in the sector are strengthened and improved coordination allows MF&A and its agencies/authorities to provide effective service delivery.

The specific objectives will be realized through the following programming areas:

- (i) Protection & Sustainable use of Agricultural Land & Water;
- (ii) Productivity, Commercialization and Diversification of Crops and Livestock;
- (iii) Sustainable Fisheries Management and Aquaculture Development;
- (iv) Food Security and Nutrition and;
- (v) Human and Institutional Capacity Development

#### *SNAIP programmes and proposed interventions and cost*

*Programme 1:* Protection and sustainable use of agricultural land and water (total cost 122.2 million SCR). The programme will consist of the following sub-programmes/ intervention areas: (i) Protect agriculture land resources; (ii) Reduce degradation of agricultural land through effective land and water management; (iii) Increase irrigation of agriculture land, and; (iv) Improve land use efficiency through promoting food tree crop, agro-forestry.

*Programme 2:* Productivity, commercialization, diversification of crops and livestock (total cost 485 million SCR). The programme will have four major sub-programmes: (i) Development of livestock commodities and value chains; (ii) Development of crop commodities and value chains; (iii) Provision of effective bio-security services, and; (iv) Access to finance and insurance products

*Programme 3:* Sustainable fisheries management and aquaculture development (Total cost 789 million SCR). The following will be the sub-programmes: (i) Artisanal Fisheries Promotion; (ii) Semi-Industrial Fisheries Support; (iii) Industrial Fisheries Development; (iv) Develop fish products marketing and value chains and improve access to finance; (v) Development of Mari-culture commodities and value chains, and; (vi) Post harvest handling and seafood value addition.

*Programme 4:* Food security and improved nutrition (Total cost 17 million SCR). The following will be the sub-programmes: (i) Set-up National Contingency Plan for Food System Resilience; (ii) Improve nutrition practices at household level, and; (iii) Strengthen food security and nutrition monitoring.

*Programme 5:* Human and institutional capacity development (Total cost 168 million SCR). The following will be the sub-programmes: (i) Support to agriculture sector knowledge management; (ii) Support to agriculture sector institutions' capacities; (iii) Support to the policy, governance and regulatory framework, and; (iv) SNAIP coordination and implementation.

### ***Summary SNAIP Budget***

The total budget over the 6 year implementation period is estimated at 1,582 million SCR (approximately US\$ 127 million), as follows: (i) Protection and sustainable use of agriculture land and water, 122.2 million SCR (US \$9.85 million); (ii) Productivity, commercialization and diversification of crops and livestock, 485.09 million SCR (US \$ 39.12 million); (iii) Sustainable fisheries management and aquaculture development, 789.67 million SCR (US \$ 63.68 million); (iv) Food security and nutrition, 16.95 million SCR (US \$ 1.37 million); (v) Human and institutional capacity development, 168.17 million SCR (US \$ 13.56 million). The largest proportion of the allocation is towards the fisheries budget which represents 50% (790 million SCR) of the total budget, followed by crops and livestock at 31%. On average, 264 million SCR will be disbursed per annum, representing 1.5% of Seychelles GDP estimated at 16,723 million SCR in 2013 (IMF, 2014). Available resources for SNAIP implementation total 1,060.48 million SCR (US \$85.52 million) which gives a financing gap of 521.60 million SCR (US \$ 42.07 million).

### ***Implementation arrangements***

Adequate attention will be given to the key issues relating to implementation arrangements, the major ones being: Policy and legal framework; Institutional framework for implementation; Financing modalities, and; Monitoring and Evaluation and Mutual Accountability. The implementation of SNAIP will be driven by the public sector, the private sector and PPPs along with international cooperating partners.. The financing modalities of SNAIP will be flexible, allowing the participating cooperating partners and other actors to meet their reporting obligations while at the same time aligning themselves to government accountability systems and formats. MF&A will have a dedicated unit responsible for M&E. In a bid to enhance cost effectiveness, MF&A will collaborate with other institutions currently involved in collecting Key Performance Indicator (KPI) data to avoid duplication. Annual Sector Performance analyses will be conducted to feed into annual stakeholder SNAIP reviews which will in turn inform the preparation of Annual Work Plans and Budget based on evidence.

# **1. INTRODUCTION**

## **1.1. Background**

The Seychelles National Agricultural Investment Plan (SNAIP) is the country's Agricultural Development Strategy and Investment Plan for the period 2015 to 2020. For the sake of clarity, agriculture is defined in a wide sense and is meant to include forestry, crops, livestock and fisheries. Building on various national and sector development strategies and plans, the SNAIP consolidates and harmonizes existing agricultural, food security and nutrition related policies, strategies and regulatory frameworks into a comprehensive, but coherent national agricultural development plan. The SNAIP sets the priorities for the next six-year period and these will be used as a basis for defining the annual agricultural spending budget under the Medium Term Expenditure Framework (MTEF).

For most African countries, Agriculture is arguably the most important sector of the economy and this provides an immediately compelling rationale for Government engagement and leadership on an agricultural transformation and growth agenda. The situation is different for the Seychelles. The World Bank/IMF rankings list Seychelles as a middle income country, with a GDP per capita of USD 14,220 in 2013 ( World Bank 2013). Seychelles' economy is largely based on revenue from the tourism industry - 70% of foreign exchange earnings and about 25% of the GDP. Seychelles has a relatively narrow agricultural base. Even though only about 50% of the arable land is exploited for agricultural activities, overall total arable land is limited, accounting for approximately 500 hectares (Agricultural Census, 2011). Much of the land use has changed from agriculture to housing and tourism.

On the other hand, fisheries is an important pillar of the economy. Seychelles enjoys an exclusive economic zone of almost 1.4 million square kilometres in one of the world's major tuna fishing grounds. Tuna fishing and processing accounts for close to 5% of total GDP, 7% of total employment and around 35% of exported goods.

Nevertheless, as it imports over 70% of its food needs (MDG Status Report, 2013), Seychelles used to believe that it could fully support its food basket through importation. However, this is changing, compelled by many factors including the plight of Seychelles during the 2008-09 global food prices rise and associated reaction of some food-surplus countries, imposing a ban or quota on their food exports to secure their own needs. Other exogenous shocks such as natural calamities; including volcanic eruptions preventing planes from flying, as occurred in the 2011 with the eruption in Iceland also impact on the food and nutrition security status which further emphasises the acute vulnerability status of Seychelles.

The high dependence on food imports means Seychelles is highly vulnerable in the event of any disruptions in global food markets. This direct dependence on food imports means the impact on Seychelles' local food availability and supply chains will be immediate and widespread. This dependence on food imports has also meant losing much of the indigenous knowledge and skills in the human-natural resources interactions. Much of the indigenous fruit and vegetable are not valorised as the standard food basket is gradually filled with imported – usually highly processed food. According to the Health authorities, this is also impacting on the nutritional status of the population. Seychelles has a high prevalence of non-communicable diseases (NCD), such as overweight, obesity, diabetes. It is estimated that 19.3% of boys and 22.7% of girls are overweight (Health of our Nation Report, 2014).

Government is keen to explore measures to optimise local food production and thereby secure accepted levels of food availability to reduce vulnerability of the country in the face of natural or human caused disruption in the global food supply systems. Building a complementary local food system which can enable the country and households to withstand the disruptions in food import systems is the primary driver for transforming and enhancing performance of the country's agricultural production system. Enhanced local production, including the home gardens, will not just increase available food, but will also provide a wider range of food products, impacting on the nutritional quality of the available food basket. The issue of food security and nutrition are at the centre of the country's recently adopted food and nutrition security policy.

## **1.2. The Seychelles CAADP Compact**

The Government of Seychelles has embraced the Comprehensive Africa Agriculture Development Programme (CAADP) as a policy framework to guide and facilitate the desired policy and technical decisions and actions to transform the Seychelles' agricultural sector to one that effectively provides for the needs of the country to have a credible local food supply base which can mitigate immediate adverse consequences of failure in import supply systems. CAADP implementation is expected to bring its value addition and impact through its influence in the following aspects: (a) strengthening of institutional and human capacity to plan, execute and manage agricultural development investment programmes; (b) enhancing adoption of improved technologies impacting directly on agricultural productivity and production and value addition/agro-industry; (c) brokering increased investment financing as well as link to ensuring best returns on investments and (d) enhancing capacity to review and integrate in national policy and programme design regional and global factors and policies.

The Seychelles CAADP Compact (SCC) was signed on 16 September 2011 by the Ministries of Finance, Natural Resources, and Foreign Affairs and by all relevant stakeholders. These included representatives from the following stakeholders: Development Partners (UNDP/FAO), Civil Society (LUNGOS), Producers' Associations (SeyFA/SFMC), Private Sector (SCCI), COMESA, African Union/NEPAD. The SCC identified five key interventions areas: a) Protection and Sustainable Use of Agricultural Land and Infrastructure, b) Agriculture Research, Irrigation and Extension, c) Sustainable Fisheries Development, d) Marketing and Trade of Agriculture Produce, and e) Food and Nutrition Security. The SCC reflects the main priorities that all stakeholders agreed to support.

### **1.3. Linkage to National Economic Growth and Development Agenda**

The CAADP Agenda, although continental in scope, enhances national efforts to promote growth in the agricultural sector and hence, contributing to overall national economic development. CAADP promotes harmonised strategic planning and implementation, and encourages partnerships and development assistance through investment promotion at national, regional and international levels. The ultimate goal of the CAADP process in Seychelles is to support the development and implementation of a comprehensive and coherent agricultural development programme covering all major agricultural sub-sectors, i.e. crops (arable), livestock, marine fisheries and elements of forestry.

The Seychelles National Agricultural Investment Plan (SNAIP) defines priorities, goals and outcomes which should bring the country's agricultural systems to sustainably deliver optimal production levels and is therefore an important factor to the attainment of resilience, on one hand, and broad-based, integrated and inclusive socio-economic growth and development on the other.

The CAADP framework aligns itself with the Seychelles Medium Term National Development Strategy (MTNDS) focusing on six relevant investment areas, namely: (i) increased and sustainable use of agricultural land and associated infrastructure; (ii) agricultural research, innovation and knowledge support; (iii) increased technological advancements including irrigation, improved seed, higher and more appropriate use of fertilizers and chemicals; (iv) sustainable fisheries development; (v) agro-industry, marketing and trade of agricultural produce; (vi) and food security and nutrition.

A Development Strategy (The Medium Term National Development Strategy) is being prepared under the leadership of the Ministry of Finance, Trade & The Blue Economy (MFTBE). It will have a very similar timeframe to the proposed SNAIP, from 2015-2019. Ideally the priorities identified in the SNAIP should feed into the preparation process of this new overarching strategy. The GoS has recently piloted a Programme Performance Based Budgeting (PPBB) in two sectors; the Ministry of Fisheries & Agriculture and the Ministry of Education. This implies defining clear programmes in these sectors, as well as quantifying the main services to be provided and presenting the budget accordingly. The SNAIP programmes should be reflected in the PPBB methodology, and the targets and budget should gradually be harmonized.

### **1.4. SNAIP: Approach and Methodology**

The GoS launched the preparation of the SNAIP in 2012, and a national team of technical staff from different agencies prepared a matrix of proposed interventions, organized by CAADP Pillar, and based on policy documents such as the National Food and Nutrition Security Policy (NFNSP, 2013), the draft Seychelles' Medium Term National Development Strategy (MTNDS, 2013-2017), and the Seychelles

CAADP Compact (SCC, 2011). In July 2013 the NEPAD Planning and Cooperation Agency (NPCA) provided an international consultant, assisted by a national consultant, with a view to supporting this process. A follow-up mission from NPCA took place in December 2013. The last mission prepared a draft SNAIP document, including a programmatic structure, which was made available to the GoS and to FAO early in April 2014.

MF&A requested FAO to provide assistance with the costing and financing gap aspects of the SNAIP, based on (a) the current SNAIP draft as prepared by NPCA; (b) existing policy documents; (c) feedback from meetings with various Government of Seychelles (GoS) departments; (d) feedback provided by other stakeholders. From April to September 2014 FAO proceeded to provide support with the finalization of the draft SNAIP's results framework, budget and financing gap on this basis.

The development of the SNAIP was a participatory and inclusive process involving consultations and dialogue with stakeholders in agriculture and other related sectors, including the private sector, civil society organisations and farmers and fishers organizations (see Annex 5 for a List of people consulted in the elaboration of SNAIP). This was done through consultation workshops and one-on-one meetings, which were instrumental to developing proposed interventions, feasible targets and realistic unit costs. The involvement of players from non-agricultural sub-sectors, such as the Ministry of Finance, Trade and The Blue Economy, the Ministry of Health, the Development Bank of Seychelles, the Seychelles Investment Board, the National Bureau of Statistics, the Seychelles National Parks Authority (responsible for Forestry), helped to identify inter-sectoral linkages as well as multi-sectoral operational modalities. This has also helped position agriculture as an integral part of national strategies.

The overall process was strongly supported by analytical work and studies. Among the key documents were the analytical and prioritisation works carried out by specialised expert teams in 2012 and the Agricultural Census of 2011, the results of which were made available in 2013. The Ministry of Fisheries & Agriculture (MF&A), the Seychelles Agricultural Agency (SAA) and the Seychelles Fishing Authority (SFA) provided valuable data informing both the baselines and the targets.

The overall rationale, and the approach in the formulation and design of the SNAIP was done on the premise of two other critical principles, namely:

- a) The SNAIP is developed building on existing initiatives, programmes and policies, i.e. CAADP implementation is integral to existing national development processes, tools and implementation arrangements; it supports successful implementation of the goals of the MTNDS and should not be seen as a parallel process.
- b) The SNAIP formulation and design process should also help to strengthen local planning capacity and systems (i.e. policy and programme design processes) as well as identify and broker inter- and multi- sectoral alliances and collaborations

## **1.5. Structure of the SNAIP Document**

The SNAIP document comprises six chapters. Chapter 1 is a short introduction, while Chapter 2 develops the sector background and context under the heading "Situation Analysis". Chapter 2 also presents trends in performance of the sector while at the same time examining the factors that influence the status and trends including the key opportunities, challenges and constraints.

Chapter 3 introduces the main elements of the SNAIP outlining the overarching policy statement, goals and objectives and the underlining strategies and interventions to contribute to achieve the targets. The main programmes and their outcomes are then described, as well as the various sub-components and proposed interventions, along with the main outputs that the SNAIP seeks to deliver, along with their associated costs.

Chapter 4 deals with the summary budget and financing plan, as well as with the financing gap. Chapter 5 covers the Implementation Framework and the arrangements required for successful delivery of the SNAIP, including an outline of the proposed Monitoring and Evaluation framework that will measure progress towards results. .

The SNAIP is also accompanied by a set of supporting documents which are listed in the Annexes. These include (a) the High Level Log-frame for the SNAIP; (b) detailed Budget tables; (c) an implementation plan, including an organigram as well as d) a list of on-going and pipeline projects.

## 2. SITUATION ANALYSIS

This chapter provides the context and therefore the scope and basis for the formulation of the Seychelles National Agricultural Investment Plan (SNAIP). The chapter focuses on the following key parameters which are discussed below:

- i. Macro-economic performance
- ii. Policies and partners
- iii. Agriculture performance and its contribution to the national economy
- iv. The agricultural and fishing sector context
- v. Underlining drivers for agriculture transformation and growth

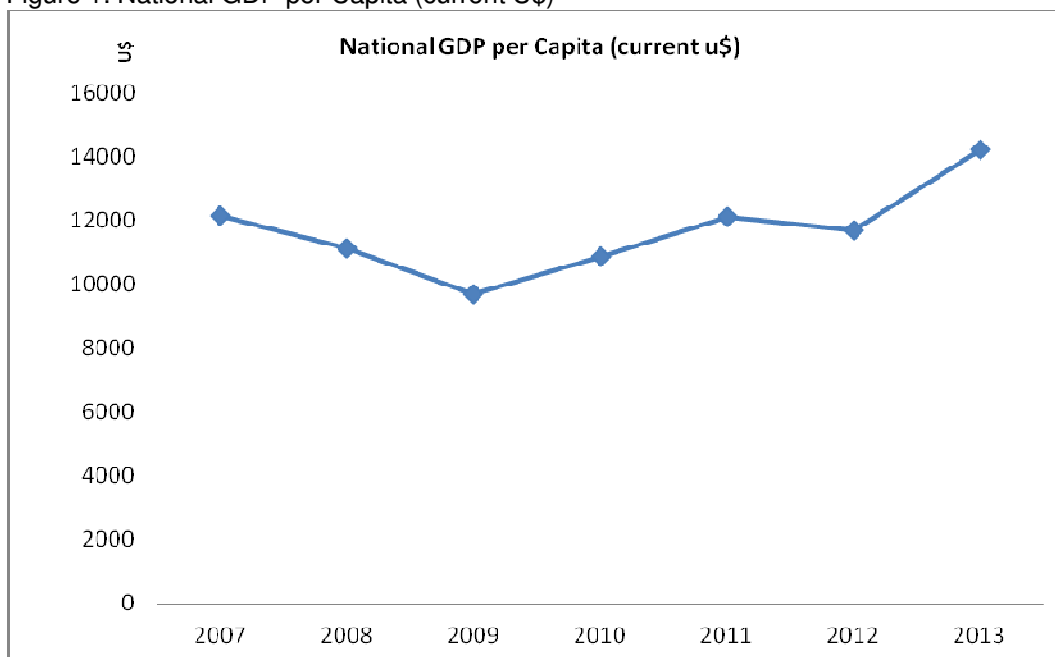
### 2.1. Macro-economic performance

#### Macro-economic aspects

Seychelles is an upper middle income country with a Gross Domestic Product (GDP) per capita of US\$ 14,220 in 2013 (The World Bank) and a population of 90,000 inhabitants. Tourism and fisheries are the economy's two major pillars. Seychelles enjoys an exclusive economic zone of almost 1.4 million square kilometres in one of the world's major tuna fishing grounds. Tourism accounts for almost 25% of the total national GDP, 25% of total employment and 70% of foreign exchange earnings. In December 2013 a new record in the number of visitor arrivals was recorded by the National Bureau of Statistics and the Central Bank of Seychelles. This represented a total of 230,772 visitor arrivals whilst tourism earnings were US\$ 343.6 million. The visitor arrivals represented a 10.7% increase over 2012 and over five times the working population of the islands. As the number of visitor arrivals increase, an increase in the amount of resources needed is also recorded. This is particularly seen in food requirements, in the face of already limited local food production. Tuna fishing and processing, accounts for close to 5% of total GDP, 7% of total employment, and around 35% of export goods.

Six years ago, between 2007 and 2008 Seychelles was severely hit by the global economic crisis. As a result, a major decrease was recorded in the national GDP in 2008-2009. After a successful reform programme in 2009 an increase in overall GDP has been recorded whereby GDP growth increased to 3.5 percent in 2013 compared to 2.8% in 2012 (**Figure 1**).

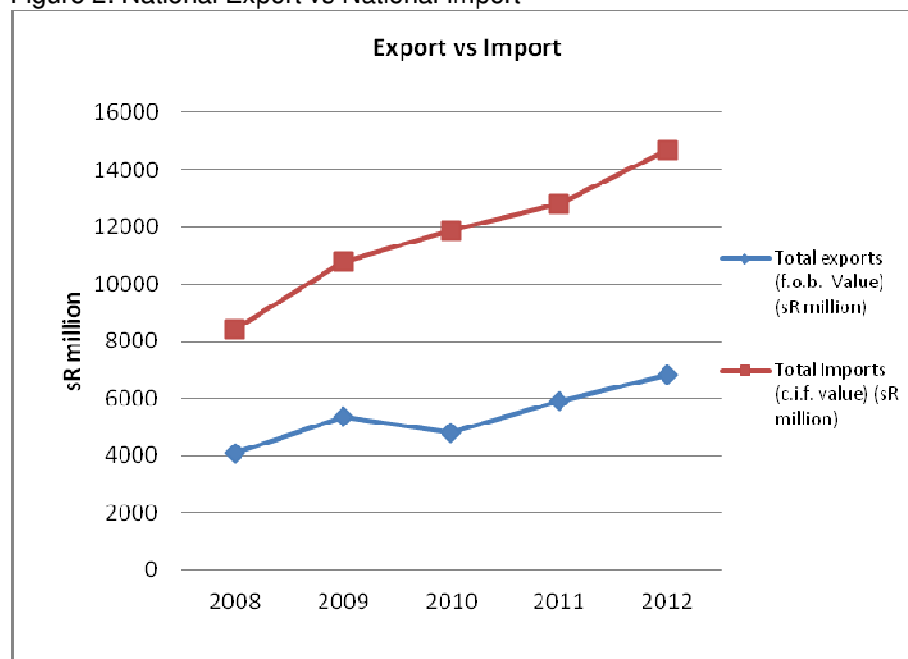
Figure 1: National GDP per Capita (current U\$)



## Trade

Seychelles relies heavily on imports for almost all raw materials, products, and specialized services. Over the last ten years, the Seychelles has been importing up to 70% of its food requirements. Rice, the food staple, is not produced in Seychelles hence its domestic requirements need to be imported. Export of fish and fish products remain the bulk of exports for Seychelles. The volume of products exported increased by 0.34% in 2012, whilst the value of exports increased by 12.5%. This translates to 39,154 MT with a corresponding value of SR 3.6 billion exported in 2012 as compared to 39,023 MT valued at SR3.2 billion exported in 2011 (**Figure 2**).

Figure 2: National Export vs National Import



Source: Seychelles in figures 2013

The globalisation of the food systems, the 2008-09 increase in global food and energy prices coupled with other natural and human factors (e.g. tsunami, pirates<sup>1</sup>, etc...) brought home Seychelles' vulnerability *vis à vis* its food supply.

Seychelles therefore has no option but to ensure some level of local production to ensure a minimum level of food security and nutrition for its population and visitors. Therefore, while imports of food and agricultural products would remain significant for Seychelles, due to a number of limitations and constraints related to the geography of the islands, Government is committed to increase and optimise the local production of agriculture and food. As a result, agriculture has gained renewed importance in the national development strategy.

## Land

However, limited land area, investment capital and human resources restrict Seychelles' ability to benefit from economies of scale. With a total land area of 455 square kilometres land remains one of the most critical issues since 46% is already under environment legal protection. Access to land is controlled by the Ministry of Land Use and Housing.

Agriculture occupies around 0.82% or 3.75 sq km of total land use and is governed through a land tenure system. The size of land given to farmers is usually around 0.5 hectare, with a 5 year renewal

<sup>1</sup> The activities of pirates in Seychelles waters have seen an increase in the sea freight charges by 7% since 2008.

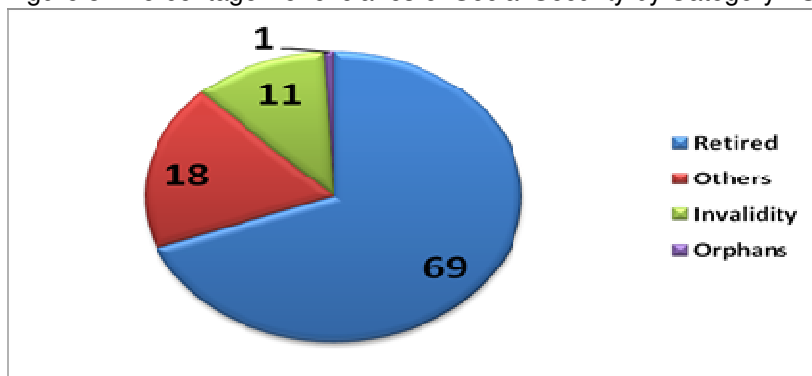
lease. The limited agricultural land is under constant pressure from the more economically profitable sectors such as tourism and tourism establishments.

### Nutrition

The percentage of undernourished population (a key indicator of malnutrition) was 11% in 1991, which reduced to 7% in 2006 (MDG Status Report, 2013, UNDP). The percentage of undernourished population is linked to the country's dependence on food imports (72% in 2011) the total cost of which was about US \$87.79 million against food exports that amounted to US \$40.88 million in the same year. Of the total exports in 2011, the bulk of those (91%) were attributed to fish and fish products.

Seychelles has a social security facility targeted at vulnerable groups (see **Figure 3**). In 2010, the total number of beneficiaries from this facility was 10,133. In the same year, an estimated total of 12.8 million Rupees was spent by government on social security.

Figure 3: Percentage Beneficiaries of Social Security by Category - Seychelles 2010



Source: Seychelles in figures 2013

## 2.2. Food and Agriculture related strategies and partners

### Strategies

Over the last seven years a number of strategies have been put into place with the aim of increasing the local production. In October 2007, government developed the Agricultural Development Strategy (2007 -2011) with the main objective of drawing up a strategic document for the sector. Following the 2008 food crisis, a food security strategy action plan was developed for the period 2008 – 2011 to mitigate the impact of the crisis by raising the level of local production.

The Mid-Term National Development Strategy (2013-2017) focuses on six relevant areas, namely: (i) increased and sustainable use of agricultural land and associated infrastructure; (ii) agricultural research, innovation and knowledge support; (iii) increased technological advancements including irrigation, improved seed, higher and more appropriate use of fertilizers and chemicals; (iv) sustainable fisheries development; (v) agro-industry, marketing and trade of agricultural produce; (vi) and food security and nutrition

### Partners

The Seychelles' agricultural sector, which includes fisheries, livestock and some natural resources management aspects, relies heavily on grants and low interest loans to develop. Currently six development partners are helping in the development of the Seychelles' agricultural sector. Below is a list of the current projects. More information on this is provided in Annex 4.

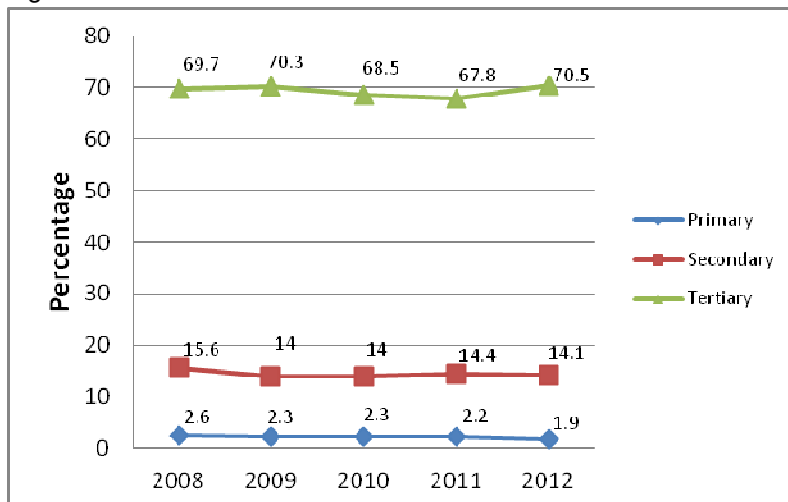
**Table 1: List of main partners and on-going projects in Seychelles**

| Financier       | Title                                                                                                                                                                                                  | Amount (Currency)                                    | Period                        | Main area of intervention                                                                                                                 |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AfDB</b>     | Agriculture Sector and Marine Aquaculture Development Study                                                                                                                                            | 3.74 m USD                                           | 2013-19                       | Agriculture value chain and aquaculture                                                                                                   |
| <b>COMESA</b>   | Integrated Water Management                                                                                                                                                                            | 0.16 m USD                                           | 2014-15                       | water demand and climate smart agriculture                                                                                                |
| <b>EU</b>       | Seychelles Fisheries Development Policy                                                                                                                                                                | 17 m USD                                             | 2014-19                       | Aquaculture management plans; fisheries infrastructure development; capacity building                                                     |
| <b>FAO</b>      | Support to the Development of Appropriate Agro-forestry Systems in Seychelles                                                                                                                          | included in the CPF                                  | 2014-19                       | Agro-forestry, institutional capacity of the sector, capacity building in soil and water management, Fisheries intelligence unit          |
| <b>FAO</b>      | Country Programme Framework (2014-2017)(CPF)                                                                                                                                                           | 1.3 m USD                                            |                               |                                                                                                                                           |
| <b>IFAD</b>     | Competitive Local Innovations for Small Scale Agriculture Project                                                                                                                                      | 3.74 m USD                                           | 2014-19                       | Enhancing business arrangements through capacity development; Improving access to finance; strategic capacity building and infrastructure |
| <b>GEF/UNDP</b> | - Ecosystem Based Adaptation to Climate Change in Seychelles<br>- Mainstreaming Biodiversity Management into Production;<br>- Mainstreaming Prevention and Control Measures for Invasive Alien Species | 3 m USD (and potentially another 5 m USD from GEF 6) | 2014-19<br>2009-15<br>2009-14 | Climate change<br>Biodiversity<br>Biosafety                                                                                               |

### 2.3. Agriculture performance and its contribution to the national economy

In Seychelles, the role of agriculture *vis à vis* the country's economic performance and growth is significantly different from that of countries in continental Africa the agricultural sector of which is the key driver of national economic development. For instance, on account of the strategic position occupied by the agricultural sector in the majority of African countries, the sector is the engine of economic growth employing between 60% and 80% of the labour force, compared to 1.0% in 2012 in Seychelles (as illustrated in **Figure 5**).

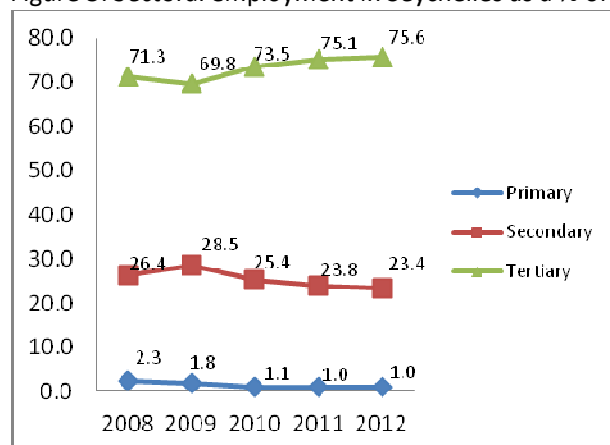
Figure 4: Sectoral Contribution to GDP at Factor cost level



Source: Seychelles in figures, 2013 edition)

The sectoral contribution to Seychelles' GDP at factor cost level for primary products (Agriculture, Forestry and Fishing) declined from 2.57% in 2008 to 1.9% in 2012. On the other hand, the secondary contribution to national GDP fell from 15.6% in 2008 to 14.1% in 2013. As expected the tertiary sector made the highest contribution to the overall GDP and it remained nearly constant from 2008 to 2011 at about 69%. A rise was recorded from 2011 to 2012 from 67.8% to 70.5% (Seychelles in Figures, 2013 edition).

Figure 5: Sectoral employment in Seychelles as a % of the total

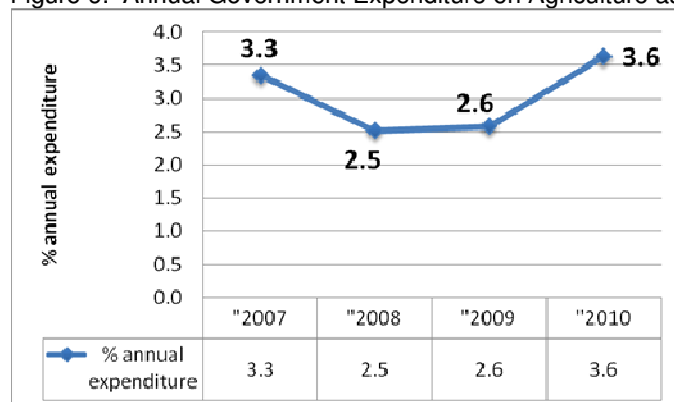


Source: Seychelles in figures, 2013 edition

### Agriculture Spending Trends

Between 2007 and 2010 Government's annual expenditure on agriculture averaged 3.0% as a proportion of its total annual expenditure. Annual expenditure on agriculture ranged from 2.5% in 2008 to 3.6% in 2010 (**Figure 6** for details) of the total annual expenditure. Nonetheless, the proportion of expenditure on agriculture by government trended upwards during the period under review. This is a positive development. However, there is need for the Government of Seychelles to do more if the recommended CAADP target of 10% of the total annual government budget allocation to the agricultural sector is to be realized. This is critical if there is to be any significant sectoral growth.

Figure 6: Annual Government Expenditure on Agriculture as a % of total annual expenditure (2007 - 10)



Source: Seychelles in Statistics

## 2.4. The Agricultural Sector Context

The discussion under this section focuses on three aspects, namely; (a) productive capacity and associated key issues; (b) opportunities and challenges and (c) lessons learnt.

### Key issues - Agriculture

During the last 2 to 4 years, there has been a reported decline in production and productivity of crops and other agricultural commodities. **Table 2** below presents production figures covering the period 2000 to 2008. During the period under review, three crops (fruit, spices and root crops) showed positive growth in production while vegetables showed negative production growth.

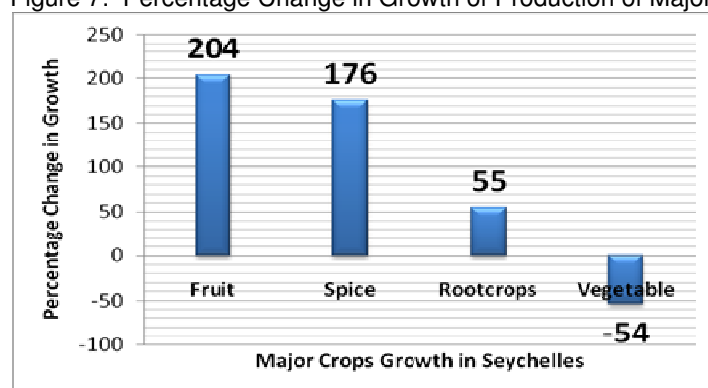
**Table 2: Production Figures of Major Crops Grown in Seychelles (Tonnes)**

| (MT)         | 2000         | 2001         | 2002         | 2003         | 2004         | 2005         | 2006         | 2007         |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Vegetable    | 3,226        | 2,065        | 2,152        | 2,556        | 1,943        | 1,293        | 2,523        | 1,496        |
| Fruit        | 798          | 1,053        | 1,088        | 1,137        | 779          | 1,271        | 2,436        | 2,428        |
| Spice        | 25           | 19           | 8            | 17           | 20           | 36           | 39           | 69           |
| Root crop    | 607          | 556          | 450          | 544          | 291          | 401          | 570          | 942          |
| <b>TOTAL</b> | <b>4,655</b> | <b>3,692</b> | <b>3,698</b> | <b>4,254</b> | <b>3,032</b> | <b>3,000</b> | <b>5,568</b> | <b>4,935</b> |

Source: Draft CAADP Stocktaking Report – Seychelles

The highest percentage growth between 2000 and 2008 in major crops produced in Seychelles was recorded in fruits (204%), followed by spices (176%) and root crops were third at 55% (see Figure 7). These impressive growth figures suggest considerable potential for the crops under discussion. Consequently, SNAIP needs to build on this positive trend. On the other hand, the negative growth of -54% recorded for vegetables during the period under review suggests the existence of challenges which need to be addressed by SNAIP to reverse the trend.

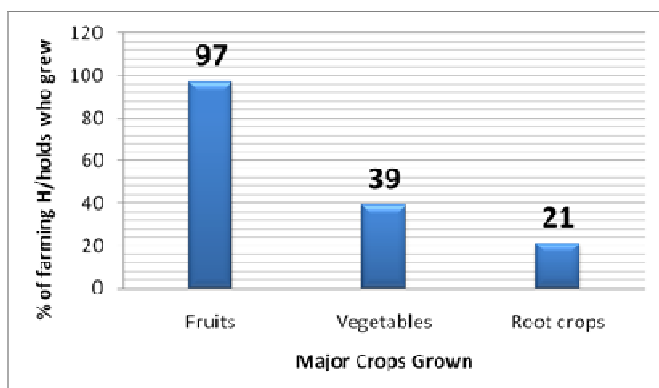
**Figure 7: Percentage Change in Growth of Production of Major Crops In Seychelles (2000 - 2008)**



Source: Draft CAADP Stocktaking Report – Seychelles

The dramatic change in percentage growth of fruits accounting for 204% between 2000 and 2008 as noted in **Figure 7** above may partly be explained by the fact that fruits are grown by the largest percentage (97%) of farming households in Seychelles (see **Figure 8** below).

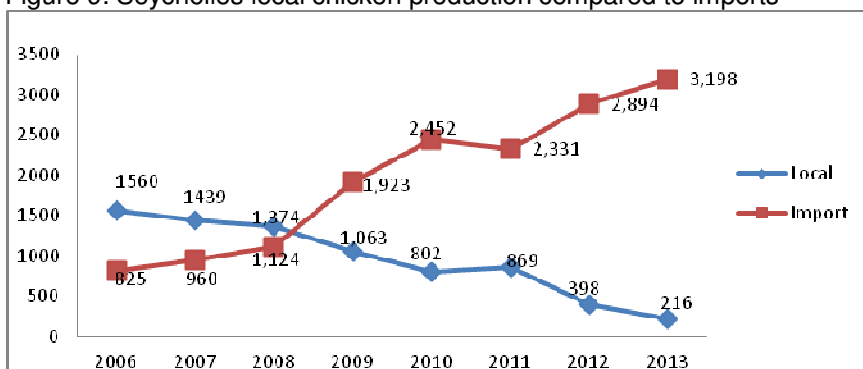
Figure 8: Percentage of Farming Households in Seychelles which grew Various Major Crops in 2011



Source: Agricultural Census, 2011

The increase in food imports is on account of declining local production of food, in particular for livestock/animal products, as illustrated by **Figures 9, 10, 11, 12** below.

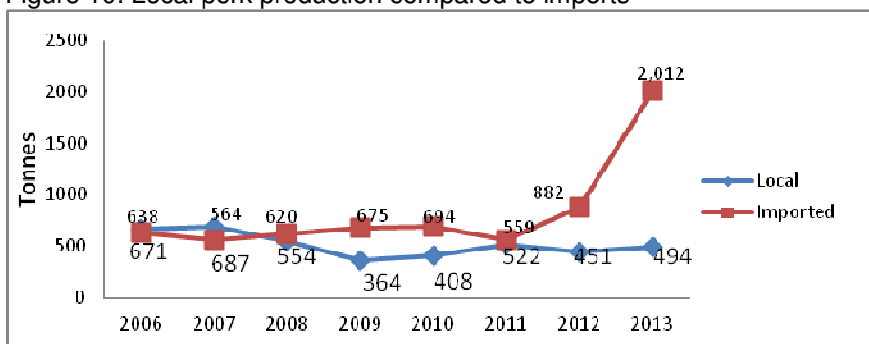
Figure 9: Seychelles local chicken production compared to imports



Source: Seychelles NFNSP, 2013

Local poultry production has been on an alarming decrease since 2006, whereby it has reduced by 8 times (from 1560 tonnes in 2006 to 216 tonnes in 2013). To the contrary, importation of poultry has risen sharply due to liberalization of imports and a rise in demand. Government in April 2010 totally liberalized the importation of meats and meat products. It was firmly convinced that in liberalizing the imports, the average consumer will be able to benefit from the supposedly lower prices of imported broiler chicken in particular. Competition from this much cheaper imported chicken has forced many local livestock farmers to close down their production units.

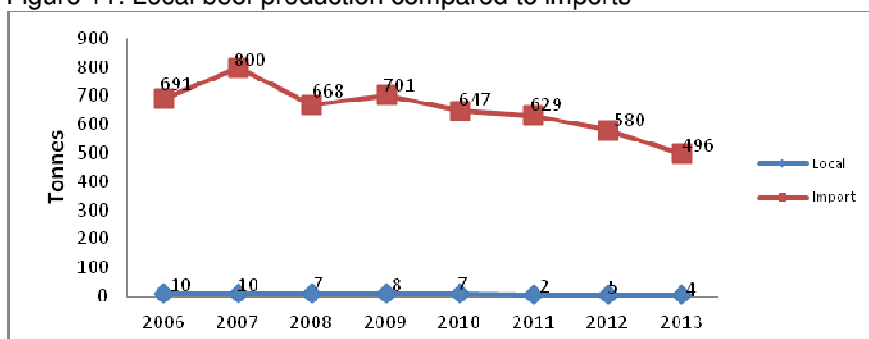
Figure 10: Local pork production compared to imports



Source: Ministry of Fisheries & Agriculture, 2013

Similarly, pork production has been on a steady decline since 2006. A sharp rise in importation of pork was recorded from 2012 to 2013 which will no doubt further affect the local production of pork (see Figure 10 above).

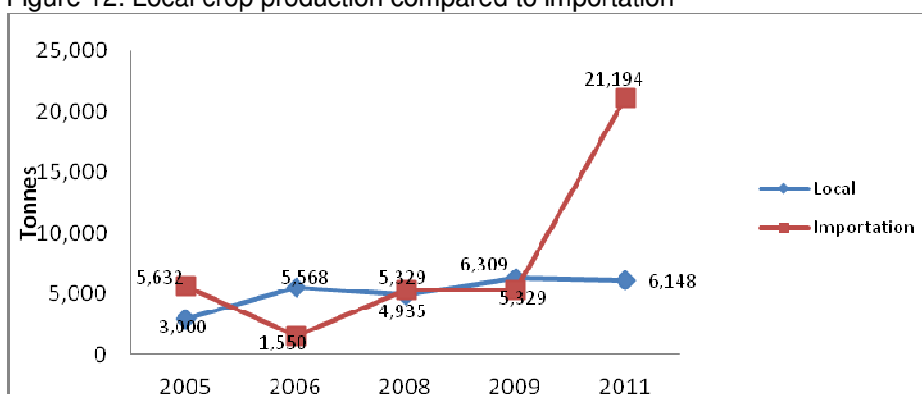
Figure 11: Local beef production compared to imports



Source: Ministry of Fisheries & Agriculture, 2013

Local beef production is minimal in the Seychelles contributing to only 1% of the total consumed. Furthermore, local production has been on a gradual decrease from 10 tonnes in 2006 to 4 tonnes in 2013. Importation of beef has also fallen in recent years to only 496 tonnes in 2013 (Figure 12 provide details).

Figure 12: Local crop production compared to importation



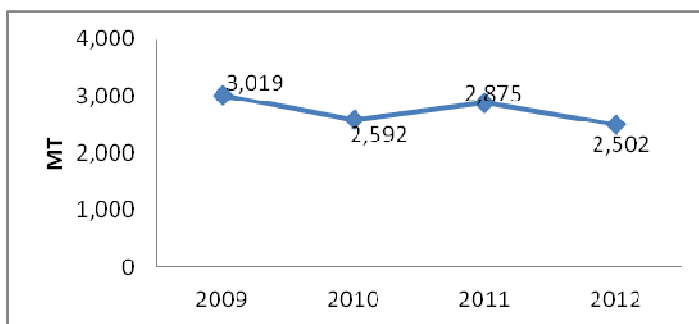
Source: Ministry of Fisheries & Agriculture, 2013

Unlike livestock production, crop production in Seychelles has been on a slight rise since 2005 (from 3000 tonnes to 6148 tonnes). Importation, on the other hand, threatens to seriously affect this rising trend in local production as importation of crops has nearly tripled in the space of 2 years from 2009 to 2011 (from 5329 tonnes to 21194 tonnes). This rise in importation will seriously affect the marketing of local products.

### Key issues - Fisheries

The artisanal catch is vital to food security of Seychelles as it provides fish for the local market. The artisanal catch, which started recovering slightly in 2011, dropped by 13.0% in 2012 to reach 2,502 MT, a figure lower than that recorded in 2010 when piracy activities were at its peak. One possible explanation for this is the lack of human resource available for data collection therefore there has been incomplete coverage of fish landing sites. It is worth noting that in 2012, the Seychelles Fishing Authority initiated a process to have all its economic databases reviewed for future updating to improve the statistics it publishes.

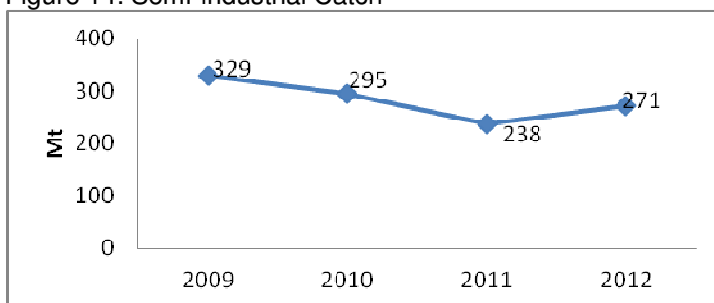
Figure 13: Artisanal Catch



Source: Seychelles Fishing Authority (Annual report 2013)

Following relatively high landings in 2009, output from the semi-industrial fishery has been on the decline since, and in 2011, a decrease of 19.4% was registered. This was due to the fact that there were only four semi-industrial fishing vessels active conducting 55 long line trips in 2011, compared to nine vessels in 2010. However, in 2012, the semi-industrial fishery showed signs of improvement, with an increase of 13.9% recorded, with seven active vessels, conducting 63 long line trips, and landing 271 MT of catch (Figure 14).

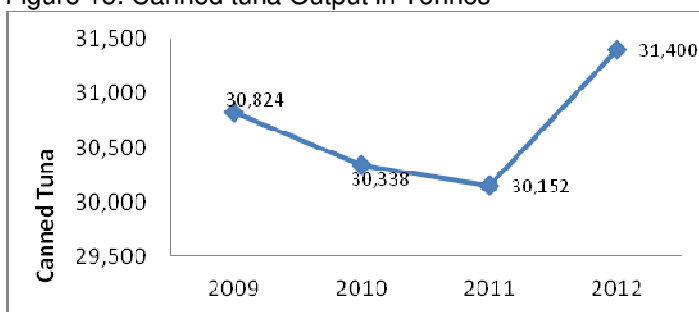
Figure 14: Semi-Industrial Catch



Source: Seychelles Fishing Authority (Annual report 2013)

As in previous years, canned tuna remained the dominant commodity produced, accounting for 92% of total domestic production of fish and fish products in 2012. An increase of 30% was recorded in tuna production in 2012 (Figure 15).

Figure 15: Canned tuna Output in Tonnes



Source: Seychelles Fishing Authority (Annual report 2013)

In a bid to further ensure the sustainable development of the fisheries sector government recently adopted the Blue Economy Concept whereby the primary focus is not on profit but rather on sustainable development. Seychelles co-hosted the Blue Economy Summit in Abu Dhabi, United Arab Emirates, between the 19<sup>th</sup> and 20<sup>th</sup> of January 2014 during which Seychelles made a Blue Economy Declaration.

## 2.5. Underlining Drivers for Agriculture Transformation and Growth

### Land administration and land policy

According to the records at the Land Section of the Seychelles Agricultural Agency, arable agricultural land area is estimated to be 500 hectares. This could be doubled through the promotion of tree crops, especially in areas where the steep slopes make the areas unsuitable for arable use. The state owns most of the agricultural land in Seychelles. The state leases to individuals for specific periods. The minimum period for lease of the land is 10 years. A total of 300 hectares of land is under the state while 200 hectares are privately owned. The agricultural system caters for the following: fruits, vegetables, root crops and livestock farming.

Two major issues are worth noting: (i) there is an absence of legal protection of agricultural land making it vulnerable to changed usage; (ii) there is poor land monitoring system resulting in poor land management and utilization. For instance, according to a survey undertaken in 2008, 41% of state land allocated to farmers was underutilized.

### Water policy and water management

Government has entrusted the PUC with the full mandate to manage and regulate use of the country's water resource. PUC has not identified agriculture as one of the sectors to which water needs to be allocated. This has created major challenges when it comes to irrigated farming. Irrigation policies and programmes administered and managed by the Seychelles Agricultural Agency (SAA) is seriously constrained by this position from the PUC. There is a compelling need to make water more readily available in a more systematic manner particularly to all the registered farmers who number 700 at present.. This has the potential to significantly expand Seychelles' capacity for agricultural production.

Appropriate Government policies, including the supportive PUC regulatory framework will unlock investment opportunities in agriculture. This includes rainwater harvesting and storage structures which will multiply Seychelles available water. Some of the potential agricultural production and market niches for Seychelles are likely to be in irrigated value chains, e.g. organic, bio and fresh vegetable products.

### Infrastructure and market development

The last time feeder roads were constructed in the main agricultural areas was under the Integrated Agricultural Development Project (IADP) between 2000 and 2006, funded by the African Development Bank. Since then, not much has been done in this sub-sector. At the time, 5 km of feeder roads were constructed. The total road network in Seychelles is 508 km. The last time a number of district markets were constructed aimed at decentralizing the sale of agricultural produce, was more than 20 years ago, through an International Fund for Agricultural Development (IFAD) project.

Establishing and building district farm markets is important and has the potential to "pull" production. However, additional to investments in the construction of district markets, it is critical that appropriate policies and regulatory frameworks exist to stimulate and guide the use of the markets as part of the systems affording farmers and communities an economic opportunity window. Therefore, while it is important to have markets, it may make more economic sense to focus on regional markets rather than a proliferation of markets in every district where they are only sparsely used at best.

### Key Challenges

The following are some of the key challenges that will need to be addressed if the agricultural sector is to deliver on its goals and strategic objectives, i.e. ensuring food and nutrition security that promotes the country's sovereignty and reduces her external vulnerabilities.

- **Underdeveloped value chains:** the various players involved in value chains are ignorant of their place within the chains. This is on account of: poor market information flow; weak and or/absence of mechanisms that would involve the various actors; inadequate and or/an

absence of resources to facilitate effective participation by the actors in the various stages of the value chain, and; lack of effective coordination.

- ***Inadequate appreciation of the place of agriculture:*** the over dependence of Seychelles on tourism and the fishing industries for the generation of the bulk of its financial resources has had a negative impact on the country's prioritisation in terms of the place of agriculture in the country's economy. A considerable proportion of stakeholders perceive the agricultural sector to be irrelevant in the light of adequate resources generated from tourism and fishing which go towards the importation of the bulk of the country's food requirements.
- ***Declining production and productivity of major crops:*** The analysis above has shown a considerable decline in the production as well as the productivity of the major crops grown locally. This is primarily on account of a number of reasons including inadequate injection of the required resources into the sector (technology, funds, etc).

### **3. SEYCHELLES NATIONAL AGRICULTURAL INVESTMENT PLAN**

#### **3.1. Strategy, Overarching Approach and Guiding Factors**

The primary element that needs recognition at this stage is that the Seychelles National Agricultural Investment Plan (SNAIP) is meant to be the central instrument by which the Seychelles realises the value of CAADP as a policy framework in changing and strengthening performance of the national agricultural sector (including fisheries and livestock). The SNAIP also takes on board specific features unique to Seychelles which include:

- a) Key and immediate drivers for agriculture development in Seychelles: Limited capacity and systems to develop a fully-fledged agricultural sector. Therefore, the key driver for Seychelles' engagement to develop its agricultural sector is primarily to:
  - i. Generate the "public good" in terms of ability for increased resilience of the country to mitigate adverse impact that may come with the dependence on global food systems, and
  - ii. Optimise local food production to expand the dietary range of available food, and contribute to improved nutrition efforts linked to public health.
- b) Implication of being a middle-income country: This situation compels the country to plan largely on the basis of its own resources. Both local and international private sectors will also be important in rallying investment financing into the country's agricultural sector.
- c) With an appreciation of the Seychelles Food Basket, the SNAIP will support identification and production of food commodities with the highest probability of supporting a buffer system with regard to availability of food, even in the event of supply disruption from the global markets. The SNAIP will focus on crop (fruit, vegetable, root and tuber commodities) and livestock (pork and poultry), and fisheries, as important components in the food basket.
- d) Import vis-a-vis local production: With the aforementioned factors and the food sovereignty objectives in mind, Seychelles will remain with a significant portion of its food requirement imported from outside the Island. However, the policy shall remain that Government will continue to support a local food production system to ensure at least a minimum level of food security and nutrition from internal resources.
- e) Potential local production capacity: taking into account local ecosystems circumstances, potential arable land size and quality as well as farming systems, the SNAIP takes a deliberate stand which acknowledges that while private sector commercial farming units remain important, there is a significant local production capacity which has to be harnessed from urban/peri-urban home gardens.
- f) Private sector will play a critical role in developing and sustaining Seychelles' optimal ability and capacity of the local agriculture production systems (also taking into account intensification objectives). Therefore, the SNAIP embraces key strategies and interventions to rally and strengthen entrepreneurship capacity as well as value chain approaches. This involves stimulating and nurturing private sector drive and involvement (through e.g. public-private partnerships) in actual production implementation through to local value addition activities (agro-processing) and investment financing.

#### **3.2. The Agricultural Vision and Mission**

The SNAIP presents the GoS plan to put agriculture, livestock and fisheries on the path to irreversible transformation. Below is a set of priority programme intervention areas, related outcomes and necessary operational strategies which will (a) guide public actions and investments and (b) leverage private sector action and investment in the agricultural sector over the next six years.

The vision for the agricultural sector for Seychelles “**To have a resilient and sustainable agricultural sector that enhances food and nutrition security, contributes to economic growth and respects the natural environment.**”

The mission is to create “**A food and nutrition secure Seychelles by valorising natural resources sustainably, allowing participants to derive livelihood and contribute to national wealth creation.**”

### 3.3. The SNAIP Goal, Objectives and Expected Key Results

Development Goal: Seychelles is producing enough food to ensure its availability to meet the country's food security and nutrition needs and reduce risks and vulnerability in the event of local and/or external factors which may limit or hinder access to the global food markets (NFSNP, 2013).

The SNAIP will stimulate and guide investments in building and sustaining desired level of local food production as part of the strategic food supply/availability system. The food production system will:

- a) Support Government's efforts to expand the domestic food supply base;
- b) Bring about a food basket with a higher nutritional value, and;
- c) Enable Seychelles to optimise on the use of its natural resources with opportunity to create jobs across the agriculture and food value chain.

Higher level impact indicators to which the SNAIP will contribute are provided in Table 3 below (see Annex 1 for High level log-frame):

**Table 3: SNAIP Impact indicators, with baseline and target**

| Indicators                                                                              | Baseline | Target 2020 |
|-----------------------------------------------------------------------------------------|----------|-------------|
| Share of total consumption of livestock products that is produced locally (%)           | 20%      | 50%         |
| Share of total consumption of fruit and vegetable products that is produced locally (%) | 46%      | 56%         |
| Number of people on social welfare programme                                            | 10,000   | 5,000       |
| Non-Communicable Disease prevalence (obesity, over-weight, diabetes)                    | 63%      | 53%         |
| Overexploitation of demersal fish species (red snapper, groupers)                       | 2        | 0           |

The SNAIP will pursue the following specific objectives:

- i. Factors of production (land and water) secured and sustainably used;
- ii. Factors of productivity (land, labour, capital) in crops, livestock and fisheries sustainably enhanced;
- iii. Commodity-specific value chains developed and functioning (including agro-processing and local market linkages);
- iv. Fisheries and aquaculture revenue is increased while preserving the sustainability of the resource base;
- v. Facilitate and sustain a favourable legal, policy and institutional environment to enable a private sector driven local agricultural system, providing viable and predictable needs for business as well as social benefits for the public;
- vi. An appropriate knowledge and technological support system strengthened and supporting enhanced agricultural transformation and performance, and;
- vii. Institutions in the sector are strengthened and improved coordination allows MF&A and its agencies/authorities to provide effective service delivery.

The SNAIP objectives will be delivered through five programmes which are described in the next section and provide a "story line" in a progression from objectives and vision to outcomes, sub-programmes and investments. The five programmes are:

1. Protection & Sustainable use of Agricultural Land & Water;
2. Productivity, Commercialization and Diversification of Crops and Livestock;
3. Sustainable Fisheries Management and Aquaculture Development;

4. Food Security and Nutrition, and;
5. Human and Institutional Capacity Development.

### 3.4. SNAIP Programmes: Results Framework and Proposed Interventions

The following Programmes have been defined during the preparation process of the SNAIP described in Chapter 1 and presented in **Table 4**

**Table 4: SNAIP Programme titles**

| Number             | Title                                                                      |
|--------------------|----------------------------------------------------------------------------|
| <b>Programme 1</b> | Protection and Sustainable use of Agriculture Land and Water               |
| <b>Programme 2</b> | Productivity, Commercialization and Diversification of Crops and Livestock |
| <b>Programme 3</b> | Sustainable Fisheries Management and Aquaculture Development               |
| <b>Programme 4</b> | Food Security and Nutrition                                                |
| <b>Programme 5</b> | Human and Institutional Capacity Development                               |

The following paragraphs describe each Programme in details, including its objective, main outcome indicators and proposed sub-Programmes. Each sub-programme is then described, including objective, main outcome indicators and targets, proposed interventions and summary budget. Budget figures provided in the following paragraphs are total costs, excluding salaries. Total budget figures including salaries are provided in Chapter 4.

Wherever possible, a baseline has been provided for each indicator. The source for that baseline is the Agriculture Census of 2011, the results of which were published in 2013, or the latest annual report from the relevant department. The planning and implementation period for the SNAIP has been set to six years, from 2015 to 2020. Targets provided at outcome level refer to the desired situation by 2020.

#### 3.4.1 PROGRAMME 1: PROTECTION AND SUSTAINABLE USE OF AGRICULTURAL LAND AND WATER

This programme will help ensure that the factors of production such as land and water are secured and sustainably used. The programme will have the following sub-programmes:

- 1.1 Protect agriculture land resources
- 1.2 Reduce degradation of agricultural land through effective land and water management
- 1.3 Increase irrigation of agriculture land
- 1.4 Improve land use efficiency through promoting food tree crop, agro-forestry, agro-tourism

The main outcome indicators for programme 1 are the following (**Table 5**):

**Table 5: Main outcome indicators and budget for programme 1**

|                                                                            | Baseline          | Target 2020 |
|----------------------------------------------------------------------------|-------------------|-------------|
| <b>Share of agricultural land area being used (%)</b>                      | 70%               | 90%         |
| <b>Share of commercial farmers that use at least 80% of land lease (%)</b> | 50%               | 90%         |
|                                                                            | 122.2 million SCR |             |

**Sub-Programme 1.1** will focus on the protection of agriculture land, with the aim of ensuring that all of Seychelles' agricultural land is protected. Seychelles is characterized by its small arable land area, and in addition to the fact that it is under pressure from other users such as tourism, housing and industry. One key priority, therefore, will be to ensure that enough arable land is identified and demarcated, and that land currently being allocated for agriculture is used efficiently. The main outcome indicators for sub-programme 1.1 are the following (**Table 6**):

**Table 6: Main outcome indicators and budget for sub-programme 1.1**

|                                                       | Baseline       | Target 2020 |
|-------------------------------------------------------|----------------|-------------|
| <b>Area demarcated for agricultural land use (ha)</b> | 375            | 500         |
| <b>Percentage of total lease collected (%)</b>        | 70%            | 100%        |
|                                                       | 10 million SCR |             |

Proposed interventions under this sub-programme will include: a) establishing a land use plan and a legally binding framework for allocating and retracting land; b) continuing the demarcation of land for agricultural use, with the aim of demarcating an additional 125 ha; c) training 10 SAA and MLUH staff

in land administration and GIS techniques and d) reviewing current leases with a view of increasing land use and land tax/levy payment.

**Sub-Programme 1.2** will focus on reducing agricultural land degradation through effective land and water management practices and technologies, with the objective of ensuring that at least 75% of total agricultural land has an effective preventive degradation measure. The main outcome indicators for sub-programme 1.2 are as follows (**Table 7**):

**Table 7: Main outcome indicators and budget for sub-programme 1.2**

|                                                       | Baseline         | Target 2020 |
|-------------------------------------------------------|------------------|-------------|
| <b>Number of ha under Soil and Water conservation</b> | 100              | 180         |
| <b>Number of ha under Sustainable Land Management</b> | 100              | 180         |
|                                                       | 37.5 million SCR |             |

Proposed interventions under this sub-programme will include: a) developing and promoting soil and water conservation techniques (including contour ridges, pit basin, terraces) for commercial and non-commercial farmers; b) developing and promoting SLM techniques and practices (including conservation agriculture, soil cover, mulching, composting, manure) for all farmers; c) training approximately 1000 farmers in the above techniques, d) training approximately 50 trainers; e) completing the national IAEA project on soil and soil salinity using the laboratory as an education facility and f) redeveloping the Anse Boileau research facility and its infrastructure.

**Sub-Programme 1.3** will focus on increasing agricultural land brought under irrigation, with the objective of doubling the area under irrigation over the next six years, and bringing area irrigated to 20% of the total agricultural land area. The main outcome indicators for sub-programme 1.3 are as follows (**Table 8**):

**Table 8: Main outcome indicators and budget for sub-programme 1.3**

|                                                                                   | Baseline         | Target 2020 |
|-----------------------------------------------------------------------------------|------------------|-------------|
| <b>Number of hectares under irrigation</b>                                        | 50               | 100         |
| <b>Number of Water Users Associations established (one per irrigation scheme)</b> | 0                | 12          |
|                                                                                   | 39.3 million SCR |             |

Proposed interventions under this sub-programme will include: a) revising the regulatory framework for water, and study the possibility of setting-up a Water Resources Board, on which agricultural institutions and representative of farmers could participate in water use discussions and allocations between sectors; b) promoting a platform to discuss water allocation/use between various sectors; c) constructing and rehabilitating 6 irrigation distribution networks (pipes, sprinkler, pressurized drop) for registered farmers; d) constructing and rehabilitating 10 small barrages and reservoirs that will provide water for agricultural use; e) promoting, establishing and strengthening 12 water users associations linked to small-scale irrigation schemes (one per irrigation scheme), including the installation of 750 water metering devices for each of the farmers; f) constructing new and/or rehabilitating existing agricultural drainage system (one per irrigation scheme).

**Sub-Programme 1.4** will focus on improving land use efficiency through food tree crops, agro-forestry, agro-tourism, with the objective of bringing at least 200 hectares under agro-forestry, or planted with food or fruit trees. The main outcome indicators for sub-programme 1.4 are as follows (**Table 9**):

**Table 9: Main outcome indicators and budget for sub-programme 1.4**

|                                              | Baseline         | Target 2020 |
|----------------------------------------------|------------------|-------------|
| <b>Area of land under agro-forestry (ha)</b> | 0                | 50          |
| <b>Area planted with food trees</b>          | 5                | 50          |
| <b>Area planted with fruit trees</b>         | 25               | 100         |
|                                              | 13.3 million SCR |             |

Proposed interventions under this sub-programme will include: a) Identifying areas where agro-forestry can be promoted, targeting 40 ha, b) rehabilitating or constructing access road to more remote areas that could be brought under agro-forestry; c) promoting breadfruit and other food tree crops through sensitizing 1000 backyard (home-garden) farmers; d) promoting fruit trees with 1000 backyard (home-garden) farmers via improved access to seedlings and e) sensitizing the general public on the value of consuming fruits (20,000 people per year).

### **3.4.2 PROGRAMME 2: PRODUCTIVITY, COMMERCIALIZATION, DIVERSIFICATION OF CROPS & LIVESTOCK**

This programme will help ensure that factors of productivity (land, labour, capital) in crops, livestock are sustainably enhanced and that commodity-specific value chains for crops and livestock are developed and functioning (including agro-processing and local market linkages). The programme will have the following sub-programmes:

- 2.1 Development of livestock commodities and value chains
- 2.2 Development of crop commodities and value chains
- 2.3 Provision of effective bio-security services
- 2.4 Access to finance and insurance products

The main outcome indicators for programme 2 are the following (**Table 10**):

**Table 10: Main outcome indicators and budget for programme 2**

|                                                                  | Baseline        | Target 2020 |
|------------------------------------------------------------------|-----------------|-------------|
| <b>Percentage of crops consumed that are produced locally</b>    | 48%             | 55%         |
| <b>Percentage of livestock consumed that is locally produced</b> | 11%             | 25%         |
| <b>Area under IPM, GAP practices (ha)</b>                        | 50              | 225         |
|                                                                  | 485 million SCR |             |

**Sub-programme 2.1** will focus on the development of livestock commodities and value chains, particularly poultry, pigs, goat and will seek to strengthen livestock productivity, production, marketing and processing. The main outcome indicators for sub-programme 2.1 are as follows (**Table 11**):

**Table 11: Main outcome indicators and budget for sub-programme 2.1**

|                                                                             | Baseline        | Target 2020 |
|-----------------------------------------------------------------------------|-----------------|-------------|
| <b>Number of new livestock breeds successfully introduced</b>               | 0               | 20          |
| <b>Share of livestock farmers that practice artificial insemination (%)</b> | 0%              | 20%         |
|                                                                             | 184 million SCR |             |

Proposed interventions under this sub-programme will include

- support to animal production by: a) promoting and developing good animal husbandry practices including use of biotechnologies by training 700 trainings (5 training Sessions by 130 commercial farmers) engaged in animal production, b) setting-up a poultry parent stock farm, c) improving the present livestock sub-sector through the introduction of improved genetic material, d) upgrading of the pig genetic centre;
- support to animal health by: e) strengthening extension and veterinary staff capacity in animal production, by training 100 trainings (5 training sessions by 20 staff) ; f) constructing the veterinary laboratory; g) supporting private veterinary practices through consultative meetings; and h) Renovating and upgrade the Ex-BBC building for Livestock and Veterinary services laboratories and offices
- support to animal product processing and marketing by: i) carrying out selected livestock product value chain studies; j) introducing a livestock identification and traceability system (LITS); k) constructing a new national abattoir and associated processing facilities and l) reviewing and updating existing policies, laws and regulations pertaining to animal production and health, including certification of food quality according to HACCP standards.

**Sub-Programme 2.2** will focus particularly on the development of crop commodities and value chains, particularly root crops, fruit and vegetables, and will seek to improve productivity, marketing and processing. The main outcome indicators for sub-programme 2.2 are as follows (**Table 12**):

**Table 12: Main outcome indicators and budget for sub-programme 2.2**

|                                                                      | Baseline         | Target 2020 |
|----------------------------------------------------------------------|------------------|-------------|
| Share of farmers that adopt IPM, ICM and GAP technology/practice (%) | 10%              | 60%         |
| Number of farmers that receive extension advice via ODL              | 0                | 1,000       |
| Share of farmers that use improved OPV vegetable seed                | 30%              | 60%         |
| Number of commercial farmers engaged in contract farming             | 0                | 200         |
|                                                                      | 52.6 million SCR |             |

Proposed interventions under this sub-programme will include:

- Support to crop production and productivity by: a) providing extension support to 1,000 commercial and backyard farmers, particularly on Good Agricultural Practices (GAP), Integrated Pest Management (IPM); b) training 20 extension staff, as well as updating or preparing relevant technical manuals; c) facilitating commercial farmers' access to agricultural information through the setting up of an On-line Distance Learning (ODL) mobile unit; d) carrying out research on local vegetables, fruits and root crops, with the aim of introducing 10 new varieties, in particular 10 open pollinated varieties (OPV) of vegetables;
- Support to crop products processing and marketing by: e) facilitate crop producers associations to promote value chains; f) carry out a study of conditions required for setting-up an organic food/production label, including possible certification and labeling framework and g) promoting bee-keeping and training 36 commercial and backyard farmers.
- Support to crop biodiversity: h) developing and promoting ex-situ and in-situ biodiversity conservation of genetic resources for food and agriculture, with the aim of conserving 20 varieties; i) setting up of the Plant Genetic Resources field gene bank at the Barbarons Biodiversity Centre.

**Sub-Programme 2.3** will focus particularly on the provision of bio-security services, with the aim of decreasing the pressure of crop and animal pests and diseases, and avoiding the occurrence of new ones in the Seychelles. The main outcome indicators for sub-programme 2.3 are as follows (Table 13):

**Table 13: Main outcome indicators and budget for sub-programme 2.3**

|                                                   | Baseline         | Target 2020 |
|---------------------------------------------------|------------------|-------------|
| Reduction in occurrence of new pests and diseases | 2                | 0           |
|                                                   | 77.7 million SCR |             |

Proposed interventions under this sub-programme will include the following: a) carry out research on emerging threats, conduct 6 relevant studies and complete the biosecurity policy; b) promote improvement of biosecurity policy implementation regarding interception, incursion and occurrence of pests and diseases, by empowering 10 biosecurity officers at border posts; c) purchase necessary equipment based on the biosecurity investment plan; d) prepare a control programme of established and newly introduced agricultural pests and diseases and develop and implement 12 emergency plans for notifiable, regulated or quarantine plant and animal pests and diseases; e) carry out an intensive inventory of plant and animal pests and diseases in the Seychelles including both production and wild areas for the purpose of risk analysis and trade facilitation; f) construct a quarantine unit, fumigation and incinerator; g) construct a new plant diagnostic laboratory at the Union Vale compound.

**Sub-Programme 2.4** will focus on providing improved access to finance and insurance products, for both commercial and backyard farmers. The main outcome indicators for sub-programme 2.4 are as follows (Table 14):

**Table 14: Main outcome indicators and budget for sub-programme 2.4**

|                                                            | Baseline         | Target 2020 |
|------------------------------------------------------------|------------------|-------------|
| Number of farmers joining the agriculture insurance scheme | 70               | 200         |
| Number of successful applicants for an agricultural loan   | 50               | 100         |
| Share of portfolio at risk (PAR)                           | > 50%            | 5%          |
|                                                            | 67.4 million SCR |             |

Proposed interventions under this sub-programme will include: a) facilitate arrangements with commercial banks for providing loans to agri-businesses through 10 stakeholders meetings; b) train 1,000 commercial and backyard farmers on financial literacy; c) assess the performance of the existing Agriculture Development Fund (ADF) and agricultural insurance scheme and d) increase the amount of funds allocated to the ADF and agricultural insurance scheme, if found successful.

### 3.4.3 PROGRAMME 3: SUSTAINABLE FISHERIES MANAGEMENT AND AQUACULTURE DEVELOPMENT

This programme will help ensure that fisheries and aquaculture revenue is increased while preserving the sustainability of the resource base. The programme will have the following sub-programmes:

- 3.1 Artisanal fisheries promotion
- 3.2 Semi-industrial fisheries support
- 3.3 Industrial fisheries development
- 3.4 Develop fish products marketing and value chains and improve access to finance
- 3.5 Develop mari-culture commodities and value chains
- 3.6 Post harvest handling and seafood value addition

Main outcome indicators for programme 3 are the following (Table 15)

**Table 15: Main outcome indicators and budget for programme 3**

|                                                                   | Baseline        | Target 2020 |
|-------------------------------------------------------------------|-----------------|-------------|
| Volume of artisanal fisheries landed (MT)                         | 2,500           | 2,700       |
| Volume of mariculture harvested (MT)                              | 0               | 5,000       |
| Diversification of catch index (0 being less diversified, 1 most) | 0.25            | 0.5         |
|                                                                   | 789 million SCR |             |

**Sub-Programme 3.1** will focus on sustainable artisanal fisheries, with the objective of increasing revenue for artisanal fishers through sustainable management of reef and demersal species. The main outcome indicators for sub-programme 3.1 are as follows (Table 16):

**Table 16: Main outcome indicators and budget for sub-programme 3.1**

|                                                           | Baseline        | Target 2020 |
|-----------------------------------------------------------|-----------------|-------------|
| Number of functioning artisanal fishers associations      | 6               | 8           |
| Share of artisanal fishers using improved gear            | 30%             | 60%         |
| Share of artisanal fishers implementing a management plan | 30%             | 80%         |
|                                                           | 156 million SCR |             |

Proposed interventions under this sub-programme will include: a) carry out 6 stock assessments for priority fisheries and research required including study on by-catch utilisation; b) finalize 4 management plan for selected fisheries and promote co-management approach; c) strengthen 8 fishers associations and other value chain organizations; d) train 500 artisanal fishers on improved gear/boats use; e) organize one artisanal fisheries fair per year to facilitate access to improved nets and gear; f) train 20 SFA staff on artisanal fisheries matters; g) build 20 infrastructure for artisanal fisheries (quay, cold storage depot, fish landing site, etc); h) conduct applied research supporting selected management plans and deliver four research products; contribute to improved facilities and functioning of fisheries related bodies and organizations.

**Sub-Programme 3.2** will focus on accessing better markets for semi-industrial fisheries. The main outcome indicators for sub-programme 3.2 are as follows (Table 17):

**Table 17: Main outcome indicators and budget for sub-programme 3.2**

|                                                                               | Baseline       | Target 2020 |
|-------------------------------------------------------------------------------|----------------|-------------|
| Number of semi-industrial fishers involved in label and certification schemes | 25%            | 60%         |
| Share of semi-industrial fishers using improved gear                          | 30%            | 60%         |
| Number of operational management plans in place                               | 0%             | 1%          |
|                                                                               | 61 million SCR |             |

Proposed interventions under this sub-programme will include: a) develop and implement a management plan for the semi-industrial fishery under the fleet development programme management; b) carry out research on chemical contamination in the food chain; c) develop and apply sanitary standards, including label and certification schemes for fish products; d) improve

regulatory aspects and prepare 6 regulatory instruments on maritime safety and combatting illegal, unreported and unregulated (IUU) fisheries; e) train 10 SFA staff on IUU regulations; f) train 150 fishers on maritime safety; g) Improve quality and hygiene of fish products by training 150 fishers and vendors; h) carry out applied research and i) participate in international and regional fora.

**Sub-Programme 3.3** will focus on improving the management of the Indian Ocean tuna stocks and increase revenues generated from the industrial fleet licensed to operate in Seychelles' EEZ. The main outcome indicators for sub-programme 3.3 are in Table 18.

**Table 18: Main outcome indicators and budget for sub-programme 3.3**

|                                                                                    | Baseline       | Target 2020 |
|------------------------------------------------------------------------------------|----------------|-------------|
| <b>Number of fishing days observed on industrial tuna fishing fleets</b>           | n.a.           | 405         |
| <b>Improved level of compliance with IOTC conservation and management measures</b> | 50%            | 75%         |
| <b>Use of by-catch for value added products</b>                                    | 15%            | 60%         |
| <b>Number of harvest control rules in place</b>                                    | 0              | 2           |
|                                                                                    | 41 million SCR |             |

Proposed interventions under this sub-programme will include: a) support the development of reference points and harvest control rules for the Indian Ocean Tuna stocks, in collaboration with the Indian Ocean Tuna Commission (IOTC); b) strengthen Monitoring, Control and Surveillance (MCS) and implementation of Port State Measures; c) Train 30 SFA staff on MCS technology; d) upgrade some critical infrastructure; d) implement scientific observers programme on industrial fishing fleet operating in Seychelles EEZ; e) reduce discards at sea by developing infrastructure to transform by-catch into value added products; f) participate in regional and international for a organised by the IOTC.

**Sub-Programme 3.4** will focus on developing marketing of fish products and improve access to sustainable financing. The main outcome indicators for sub-programme 3.4 are as follows (Table 19):

**Table 19: Main outcome indicators and budget for sub-programme 3.4**

|                                                 | Baseline        | Target 2020 |
|-------------------------------------------------|-----------------|-------------|
| <b>Amount of frozen and fresh fish products</b> | 180 MT.         | 300 MT      |
| <b>Number of loans approved</b>                 | 60              | 120         |
| <b>Reimbursement rate (%)</b>                   | 5%              | 90%         |
|                                                 | 156 million SCR |             |

Proposed interventions under this sub-programme will include: a) support value chain approach for fisheries products and conduct training of 50 value chain actors; b) facilitate market access for fresh and processed fish products and increase export to 300 MT; c) assist and promote private sector initiatives in setting up 9 high standard fish processing plants to increase value addition with export permits; d) assess and expand the Fisheries Development Fund if found to be successful; e) facilitate access to finance by training 40 artisanal fishers in financial literacy.

**Sub-Programme 3.5** will focus on promoting mari-culture in Seychelles, and attracting foreign direct investment in this relatively new enterprise. The main outcome indicators for sub-programme 3.5 are as follows (Table 20):

**Table 20: Main outcome indicators and budget for sub-programme 3.5**

|                                                               | Baseline        | Target 2020 |
|---------------------------------------------------------------|-----------------|-------------|
| <b>Volume of mari-culture sea-products harvested (tonnes)</b> | 0               | 5,000       |
| <b>Annual foreign direct investment (FDI, million USD)</b>    | 2               | 50          |
|                                                               | 158 million SCR |             |

Proposed interventions under this sub-programme will include: a) train 10 SFA staff on Aquaculture issues (both scientists and technicians); b) promote mari-culture investment opportunities by

organizing one fair/year; c) invest in 3 marketing, processing and storage infrastructure dedicated to aquaculture products; d) enforce Environment Impact Assessment (EIA) by training 50 SFA, customs and coast guard staff; e) carry out a full EIA of Aquaculture development zones, covering approximately 30 sites; f) develop and implement the Mari-culture Master Plan (MMP), consisting of five phases; g) construct 2 research and development hatcheries for inner and outer islands; h) initiate 2 small-scale aquaculture projects to develop farming technology for inner and outer islands.

**Sub-Programme 3.6** will focus on improving the quality and value addition of post-harvest catch and seafood. The main outcome indicators for sub-programme 3.6 are as follows (Table 21):

**Table 21: Main outcome indicators and budget for sub-programme 3.6**

|                                                                   | Baseline       | Target 2020 |
|-------------------------------------------------------------------|----------------|-------------|
| <b>Number of approved fish processing plants</b>                  | 2              | 12          |
| <b>Number of new products and processing procedures developed</b> | 8              | 20          |
|                                                                   | 80 million SCR |             |

Proposed interventions under this sub-programme will include: a) conduct 12 consumer surveys at national and international level; b) carry out research on 20 new product development to improve quality and standards of fish catch; c) promote seafood quality and marketing of Seychelles seafood; d) collect data on quality standards of fish on local markets through regular surveys; e) develop good fish handling and processing guidelines and printing 600 copies; f) train 800 fishers, traders, vendors and stakeholders on fish quality, post-harvest and fish processing aspects; g) carry out two pilot projects to develop a fish collecting centre at village level/landing site and h) design construct and run a fish centre if found successful.

#### **3.4.4. PROGRAMME 4: FOOD SECURITY AND IMPROVED NUTRITION**

This programme will help ensure that the population of Seychelles is food secure and will contribute to Government of Seychelles' efforts to promote a more balanced diet, leading to improved nutrition levels. The programme will have the following sub-programmes:

- 4.1 Set-up a national contingency plan for food system resilience
- 4.2 Improve nutrition practices at household level
- 4.3 Strengthen food security and nutrition monitoring

Main outcome indicators for programme 4 are the following (Table 22)

**Table 22: Main outcome indicators and budget for programme 4**

|                                                                                           | Baseline       | Target 2020 |
|-------------------------------------------------------------------------------------------|----------------|-------------|
| <b>Share of Seychelles population that is food secure</b>                                 | 80%            | 95%         |
| <b>Share of Seychelles population that consumes 5 portions of fruit/vegetable per day</b> | 40%            | 50%         |
|                                                                                           | 17 million SCR |             |

**Sub-Programme 4.1** will focus on the setting-up a national contingency plan to improve resilience of food system to external shocks. The main outcome indicators for sub-programme 4.1 are as follows (Table 23):

**Table 23: Main outcome indicators and budget for sub-programme 3.6**

|                                              | Baseline      | Target 2020 |
|----------------------------------------------|---------------|-------------|
| <b>A national contingency plan developed</b> | n.a           | Available   |
|                                              | 2 million SCR |             |

Proposed interventions under this sub-programme will include: a) a study to analyse the pros and cons of different types of food reserves (financial, physical) and b) prepare and get endorsement for a policy on food reserve or contingency plan.

**Sub-Programme 4.2** will seek to improve nutrition at household level, particularly farming households (both commercial and backyard farmers), as well as fishing households. The focus will

be on promoting the consumption of better food at household level. The main outcome indicators for sub-programme 4.2 are as follows (Table 24):

**Table 24: Main outcome indicators and budget for sub-programme 4.2**

|                                                                                                                                               | Baseline      | Target 2020 |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|
| Share of schools with a functioning crop garden (%)                                                                                           | 0%            | 80%         |
| Share of households that use improved food preparation methods such as appropriate vegetable oil, grilling/steaming food, preserving food (%) | 0%            | 50%         |
| Share of population that have a diversified diet                                                                                              | 30%           | 45%         |
|                                                                                                                                               | 4 million SCR |             |

Proposed interventions under this sub-programme will include: a) develop a communication plan on dangers of poor diet, targeting general public (in association with Min of Health); b) promote school garden and cooking lessons in 25 schools (in association with Education); c) revise horticulture technical school curriculum to include nutrition and use of food; d) train 1000 backyard and commercial farmers on nutrition and food preparation and use; e) Train 10 Health Workers on the importance of good diet, food preparation and use of fresh products (vegetables and fruits); f) prepare or update 2 manuals on food conservation techniques, post-harvest, nutrition and food use aspects.

**Sub-Programme 4.3** will focus on improving the food security monitoring capability of MF&A and its agencies. The main outcome indicators for sub-programme 4.3 are as follows (Table 25):

**Table 25: Main outcome indicators and budget for sub-programme 4.3**

|                                                                              | Baseline        | Target 2020 |
|------------------------------------------------------------------------------|-----------------|-------------|
| Vulnerability Assessment Committee (VAC) study, including annual survey held | No              | Yes         |
|                                                                              | 6.5 million SCR |             |

Proposed interventions under this sub-programme will include: a) conduct yearly food security monitoring via a specific survey; b) participate in nutrition assessment and monitoring efforts in collaboration with other agencies and ministries, once a year;

### **3.4.5. PROGRAMME 5: HUMAN AND INSTITUTIONAL CAPACITY DEVELOPMENT**

This programme will enable a private sector driven local agricultural system, providing viable and predictable needs for business as well as social benefits for the public. The programme will have the following sub-programmes:

- 5.1 Support to agriculture sector knowledge management
- 5.2 Support to agricultural sector institutions' capacities
- 5.3 Support to the policy, governance and regulatory framework
- 5.4 SNAIP coordination and implementation

Main outcome indicators for programme 5 are the following (Table 26)

**Table 26: Main outcome indicators and budget for programme 5**

|                                                                                                          | Baseline        | Target 2020 |
|----------------------------------------------------------------------------------------------------------|-----------------|-------------|
| Number of organizations in agriculture and fisheries sector that participate actively in sector dialogue | 2               | 20          |
| MF&A structures are better aligned to its mandate                                                        | No              | Yes         |
|                                                                                                          | 168 million SCR |             |

**Sub-Programme 5.1** will support the agriculture sector knowledge management, in particular the research and education institutions. The main outcome indicators for sub-programme 5.1 are as follows (Table 27):

**Table 27: Main outcome indicators and budget for sub-programme 5.1**

|                                                                                                                  | Baseline         | Target 2020 |
|------------------------------------------------------------------------------------------------------------------|------------------|-------------|
| <b>Number of students graduating from the Seychelles Agricultural and Horticultural Training Centre per year</b> | 50               | 80          |
| <b>Number of innovation research projects approved per year</b>                                                  | 0                | 10          |
|                                                                                                                  | 75.6 million SCR |             |

Proposed interventions under this sub-programme will include: a) establish an Innovation Fund to strengthen the national agricultural and fisheries research system; b) Rehabilitate the Seychelles Agricultural and Horticultural Training Centre; and c) develop Information Communication Technology (ICT) for the Agricultural sector.

**Sub-Programme 5.2** will focus on supporting the agricultural sector institutions' capacities, focusing on all stakeholders, including private sector, such as the Seychelles Chamber of Commerce and Industry, the Farmers' Organizations, such as the Seychelles Farmers' Association (SeyFa), fishers associations, traders associations, the civil society organizations such as LUNGOS. The main outcome indicators for sub-programme 5.2 are as follows (Table 28):

**Table 28: Main outcome indicators and budget for sub-programme 5.2**

|                                                                                              | Baseline        | Target 2020 |
|----------------------------------------------------------------------------------------------|-----------------|-------------|
| <b>Number of organizations in the agriculture and fisheries with strengthened capacities</b> | 0               | 10          |
|                                                                                              | 1.7 million SCR |             |

Proposed interventions under this sub-programme will include: a) Reinforce the capacity of the farmers' organizations (Fishers associations, SeyFa, chamber of agriculture), targeting 25 stakeholder groups for training; b) Support a platform for agriculture and fisheries sector stakeholders.

**Sub-Programme 5.3** will support the policy, governance and regulatory framework of the Agriculture, Fisheries and Natural Resources sector. The main outcome indicators for sub-programme 5.3 are as follows (Table 29):

**Table 29: Main outcome indicators and budget for sub-programme 5.3**

|                                                                                     | Baseline         | Target 2020 |
|-------------------------------------------------------------------------------------|------------------|-------------|
| <b>Number of students graduating from the Horticulture training centre per year</b> | 50               | 80          |
| <b>Number of innovation research projects approved per year</b>                     | 0                | 10          |
|                                                                                     | 68.3 million SCR |             |

Proposed interventions under this sub-programme will include: a) carry out a study to re-organize and strengthen the structure and relationship between MF&A, SAA and SFA, including decision on how to best support farmers and fishers; b) prepare a resources mobilization strategy; c) support national data collection and statistics system; d) support policy development, laws and regulations; e) construct the Union Vale building for MF&A, including boundary wall and fencing of the SAA compound and f) construct the Grand Anse, Mahe building and its associated infrastructure, including two requisite stores.

**Sub-Programme 5.4** will focus on SNAIP coordination and implementation. The main outcome indicators for sub-programme 5.4 are as follows (Table 30):

**Table 30: Main outcome indicators and budget for sub-programme 5.4**

|                                                                                     | Baseline        | Target 2020 |
|-------------------------------------------------------------------------------------|-----------------|-------------|
| <b>Number of students graduating from the Horticulture training centre per year</b> | 50              | 80          |
| <b>Number of innovation research projects approved per year</b>                     | 0               | 10          |
|                                                                                     | 3.5 million SCR |             |

Proposed interventions under this sub-programme will include: a) strengthen MF&A planning and SAA planning departments (including setting-up a dedicated M&E unit in MF&A) to support budget planning, execution, M&E, including tracking the performance of SNAIP and project preparation and negotiation; b) establish SNAIP coordination mechanism, through technical working group, which will meet twice a year; c) ensure information about SNAIP is widely disseminated to general public (pamphlets, banners, leaflet, TV advert, radio information campaign).

## 4. THE SNAIP BUDGET

### 4.1. Programme Budget and Overall Investment Plan Budget

The SNAIP budget was derived by identifying and quantifying concrete outputs for each intervention, with annual targets, and applying an output-based budgeting methodology, i.e. estimating a unit cost figure for each intervention, and then multiplying by the annual target by the unit cost.

Inflation was then added to base costs, by applying a standard 3% per annum increase to standard unit costs for the period 2015-2020. Given that salaries have been taken into account in the available resources, these have also been added to each programme, by apportioning salary breakdown by Ministry, Department and Agency, as provided for by the Ministry of Finance Trade and Investment.

The total budget required was estimated to be 1,582 million SCR, approximately equivalent to 127 million USD. The breakdown by programme is provided in Tables 31 and 32 below (see Annex 2 for the budget).

Table 31: SNAIP overall budget, in million SCR, including contingencies and salaries

| (m SCR)                                                                              | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | TOTAL   |
|--------------------------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|---------|
| <b>1. Protection and Sustainable use of Agricultural Land and Water</b>              | 17.93  | 35.94  | 19.60  | 26.36  | 11.02  | 11.35  | 122.20  |
| <b>2. Productivity, Commercialization and Diversification of Crops and Livestock</b> | 37.07  | 97.67  | 101.31 | 115.17 | 48.68  | 85.19  | 485.09  |
| <b>3. Sustainable Fisheries Management and Aquaculture Development</b>               | 108.87 | 121.47 | 176.46 | 132.02 | 152.32 | 98.52  | 789.67  |
| <b>4. Food Security and Nutrition</b>                                                | 3.30   | 3.18   | 2.61   | 2.42   | 2.85   | 2.60   | 16.95   |
| <b>5. Human and Institutional Capacity Development</b>                               | 30.03  | 15.93  | 17.66  | 67.36  | 18.33  | 18.88  | 168.17  |
| <b>Overall SNAIP requirements</b>                                                    | 197.19 | 274.19 | 317.64 | 343.33 | 233.20 | 216.54 | 1582.09 |

Table 32: SNAIP overall budget, in million USD, including contingencies and salaries

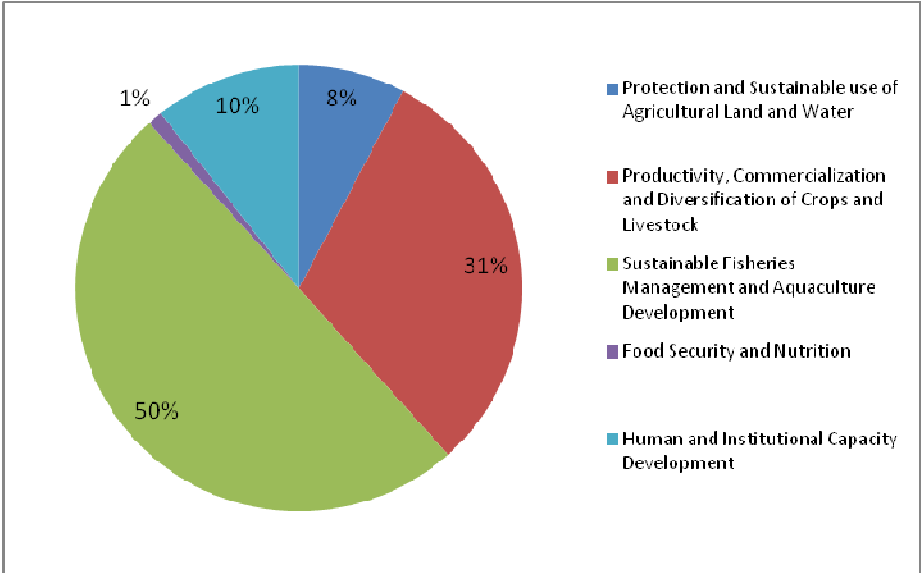
| (m USD)                                                                              | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | TOTAL  |
|--------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|--------|
| <b>1. Protection and Sustainable use of Agricultural Land and Water</b>              | 1.45  | 2.90  | 1.58  | 2.13  | 0.89  | 0.92  | 9.85   |
| <b>2. Productivity, Commercialization and Diversification of Crops and Livestock</b> | 2.99  | 7.88  | 8.17  | 9.29  | 3.93  | 6.87  | 39.12  |
| <b>3. Sustainable Fisheries Management and Aquaculture Development</b>               | 8.78  | 9.80  | 14.23 | 10.65 | 12.28 | 7.95  | 63.68  |
| <b>4. Food Security and Nutrition</b>                                                | 0.27  | 0.26  | 0.21  | 0.20  | 0.23  | 0.21  | 1.37   |
| <b>5. Human and Institutional Capacity Development</b>                               | 2.42  | 1.28  | 1.42  | 5.43  | 1.48  | 1.52  | 13.56  |
| <b>Overall SNAIP requirements</b>                                                    | 15.90 | 22.11 | 25.62 | 27.69 | 18.81 | 17.46 | 127.59 |

As can be observed, the fisheries budget (Programme 3) represents approximately 50 percent of the total requirements, at 790 million SCR out of a grand total of 1,582 million SCR. The second largest programme concerns crops and livestock, at 31 percent of the total. Land and water, and institutional strengthening represent 8 and 11 percent respectively, while food security and nutrition represents 1 percent of total requirements. The allocation by programme is presented below, Figure 16.

In terms of budget requirements, 1,582 million SCR represents an average of 264 million SCR per year, which is approximately 50 percent more than the current budget level for MF&A and its agencies (2014 budget). This average annual amount represents approximately 1.5% of Seychelles'

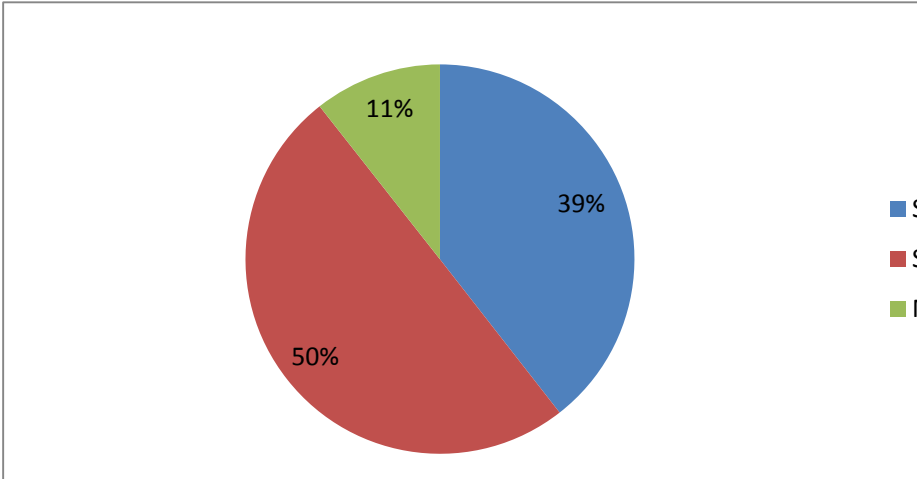
GDP, estimated at 16,723 million SCR in 2013 (IMF, 2014), and approximately 4.4% of total spending, which was set at 6,000 million SCR in 2014 (MFTBE, 2014 budget speech).

Figure 16: Total SNAIP budget by Programme



In terms of organizational breakdown, approximately 50 percent of the budget would be under the control of SFA, 40 percent under the control of SAA, and 10 percent under the control of the Ministry of Fisheries & Agriculture, in partnership with other agencies and departments, such as the Forestry Department of the Seychelles National Parks Agency; the Nutrition Department under the Ministry of Health, as well as the Institutional Capacity Development Programme.

Figure 17: Share of SNAIP budget by organizational unit



More detailed tables regarding the SNAIP budget by Programme can be found in Annex 2.

#### 4.2. Budget resources available

After determining the budget required to implement the SNAIP, the next step is to estimate resources that are available or in the pipeline, over the implementation period. Two sources of information were considered: the GoS budget, and partners on-going funding and pipeline commitments (See Annex 4 for the List of partners and on-going projects). Investments by the private sector and by farmers themselves, while important, were not estimated for this exercise.

GoS budget forecast provided by MFTBE covers the period 2015-17. Extrapolations were used for the period 2018-2020, particularly for the recurrent budget. For the investment budget, a list of on-going and pipeline projects was compiled, and the projects resources were converted to SCR. An annual breakdown was estimated when disaggregated information was not available.

The list of partners covered under this item includes the African Development Bank (AfDB), the International Fund for Agricultural Development (IFAD), the European Union (EU), the Global Environment Facility (GEF), the Common Market for Eastern and Southern Africa (COMESA), the Food and Agriculture Organization (FAO), the International Atomic Energy Agency (IAEA), the United Nations Development Programme (UNDP), the NEPAD Planning and Coordination Agency (NPCA). More information on the partners and projects taken into consideration is provided in Annex 4.

The amount of available resources for the implementation period was estimated at 1060 million SCR, approximately equivalent to 85.5 million USD. Breakdown by budget source is provided in Table 33.

Table 33: Available resources for SNAIP's implementation (m SCR)

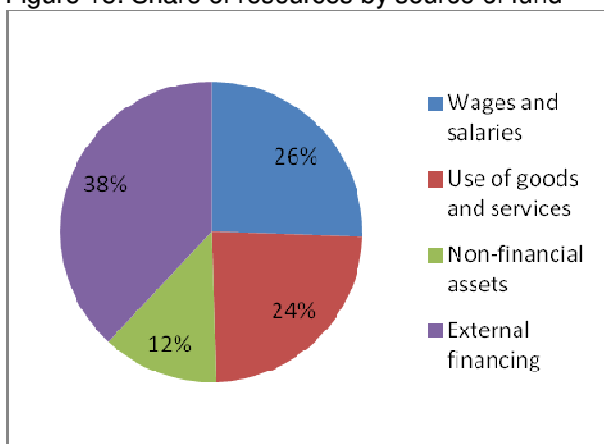
| (m SCR)                                         | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | TOTAL   |
|-------------------------------------------------|--------|--------|--------|--------|--------|--------|---------|
| <b>Recurrent budget (GOS)</b>                   |        |        |        |        |        |        |         |
| Wages and salaries                              | 38.56  | 43.70  | 45.02  | 46.37  | 47.76  | 49.19  | 270.59  |
| Use of goods and services                       | 39.38  | 40.61  | 41.83  | 43.08  | 44.38  | 45.71  | 254.98  |
| <b>Non-financial assets (Investment budget)</b> |        |        |        |        |        |        |         |
| GoS                                             | 20.90  | 19.37  | 20.72  | 22.14  | 23.62  | 25.16  | 131.93  |
| External financing                              | 94.34  | 88.83  | 84.46  | 74.17  | 61.19  | 0.00   | 402.99  |
| <b>TOTAL</b>                                    | 193.18 | 192.52 | 192.03 | 185.76 | 176.95 | 120.06 | 1060.48 |

Table 34: Available resources for SNAIP's implementation (m USD)

| (m USD)                                         | 2015  | 2016  | 2017  | 2018  | 2019  | 2020 | TOTAL |
|-------------------------------------------------|-------|-------|-------|-------|-------|------|-------|
| <b>Recurrent budget (GOS)</b>                   |       |       |       |       |       |      |       |
| Wages and salaries                              | 3.11  | 3.52  | 3.63  | 3.74  | 3.85  | 3.97 | 21.82 |
| Use of goods and services                       | 3.18  | 3.27  | 3.37  | 3.47  | 3.58  | 3.69 | 20.56 |
| <b>Non-financial assets (Investment budget)</b> |       |       |       |       |       |      |       |
| GoS                                             | 1.69  | 1.56  | 1.67  | 1.79  | 1.91  | 2.03 | 10.64 |
| External financing                              | 7.61  | 7.16  | 6.81  | 5.98  | 4.93  | 0.00 | 32.50 |
| <b>TOTAL</b>                                    | 15.58 | 15.53 | 15.49 | 14.98 | 14.27 | 9.68 | 85.52 |

The recurrent budget is composed of wages and salaries and use of goods and services representing approximately 50 percent of the total, while the Investment budget is composed of non-financial assets and external financing representing another 50 percent. Government resources represent approximately 62 percent of available funds, whereas partners' resources, on-going and pipeline resources represent 38 percent. This is illustrated in Figure 18.

Figure 18: Share of resources by source of fund



### 4.3. Financing Gap

The final step under this chapter is to work out the financing gap between the resources needed to implement the SNAIP, and the ones available from GoS and partners. Overall financing gap amounts to 522 million SCR, the difference between the SNAIP budget of 1582 million and the available resources worth 1060 million over a six year period (2015-2020). This is equivalent to 42 million USD, the difference between 127.5 million USD overall requirements of SNAIP and 85.5 million USD of available resources.

Table 35: SNAIP's financing gap, in million SCR

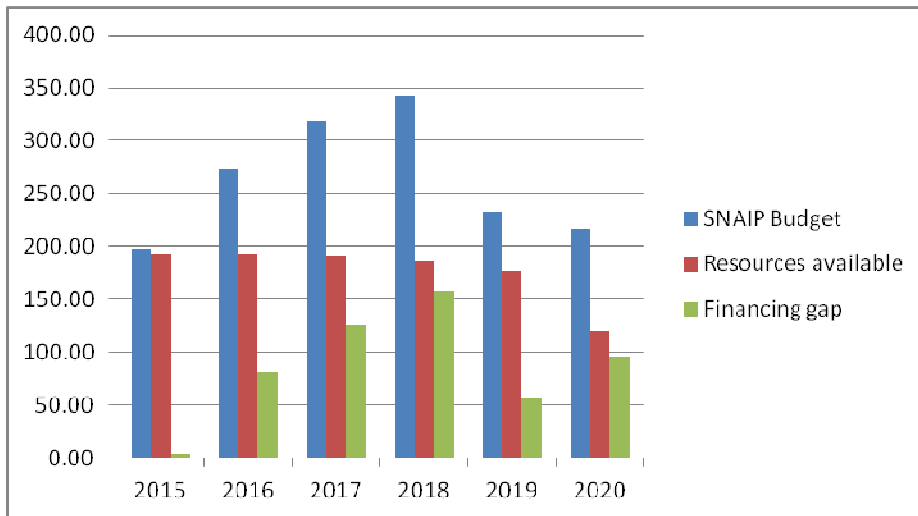
| (m SCR)                    | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | TOTAL  |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|
| <b>SNAIP Budget</b>        | 197.19 | 274.19 | 317.64 | 343.33 | 233.20 | 216.54 | 1582   |
| <b>Resources available</b> | 193.18 | 192.52 | 192.03 | 185.76 | 176.95 | 120.06 | 1060   |
| <b>Financing gap</b>       | 4.01   | 81.67  | 125.61 | 157.57 | 56.25  | 96.49  | 521.60 |

Table 36: SNAIP's financing gap, in million USD

| (m USD)                    | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | TOTAL  |
|----------------------------|-------|-------|-------|-------|-------|-------|--------|
| <b>SNAIP Budget</b>        | 15.90 | 22.11 | 25.62 | 27.69 | 18.81 | 17.46 | 127.59 |
| <b>Resources available</b> | 15.58 | 15.53 | 15.49 | 14.98 | 14.27 | 9.68  | 85.53  |
| <b>Financing gap</b>       | 0.32  | 6.59  | 10.13 | 12.71 | 4.54  | 7.78  | 42.07  |

As can be observed in Figure 19, the financing gap is rather small during the first year, and then increases substantially until 2018, after which it reduces again. This is due to the fact that while the SNAIP's investment needs follow a bell curve (lower at the beginning and the end), the currently known available resources (on-going and pipeline) follow a declining trend, which is entirely normal as on-going and pipeline commitments decrease with time.

Figure 19: The SNAIP's financing gap (million SCR)



This level of financing gap represents the equivalent of 33 percent of total needs (522 over 1582 million SCR), as the total budget required being approximately 50 percent more than currently available resources, including the on-going and pipeline commitments (1060 over 1582 million SCR). This is in keeping with best practice at the regional level.

## 5. IMPLEMENTATION MODALITIES

The necessary and appropriate environment supportive of effective and efficient implementation of the SNAIP should be given serious attention failure to which would jeopardise the realization of the programme's vision, goal and objectives. The following elements are vital in contributing towards the creation of a supporting environment to facilitate the SNAIP's implementation and these are discussed in sequence:

- (i) Policy and legal framework;
- (ii) Institutional framework for implementation;
- (iii) Financing modalities;
- (iv) Monitoring and Evaluation and Mutual Accountability

The Implementation Plan will be developed by representatives of all the major stakeholder categories as one of the key activities just before rolling out the SNAIP. See Annex 3 for a detailed outline of the Implementation Plan.

### 5.1. Policy and Legal Framework

Three policy and legal frameworks are particularly crucial in facilitating the implementation of the SNAIP. These are discussed below.

The National Food and Nutrition Security Policy

The Government of Seychelles developed the National Food and Nutrition Security Policy (NFNSP) in early 2013, which will provide the basic policy framework for the implementation of the SNAIP. The NFNSP provides the overarching framework and policy goals within which specific goals and objectives of agriculture development will be pursued. The NFNSP provides the primary basis for Government's policy leadership and guidance with respect to:

- (i) ensuring that programme and investment interventions are consistent and supportive of short and long term agricultural development and growth priorities, goals and objectives;
- (ii) ensuring coordination, coherence and comprehensiveness in strategies and programmes on food security and nutrition;
- (iii) strengthening resilience and capability within Seychelles' internal systems to anticipate and respond to internal and external shocks and changes in the food systems, including weather and climate change extremes, price volatility, etc., and;
- (iv) Strengthening accountability in food security and nutrition support systems including inclusive decision making, multi-sectoral approaches and reinforcement of collective responsibility among the various players and stakeholders.

The NFNSP has elaborated the main contents and characteristics of Seychelles' food basket and staple food and diet. The following highlight key components:

- i. Root and tubers (sweet potatoes, cassava);
- ii. Vegetables (including; lettuce, cabbage, cauliflower, cucumber, tomato, onion, green beans but not limited to those);
- iii. Pulses (dried beans – though these are imported);
- iv. Fruits (bananas, oranges, lemons, guavas, pineapples, lime, mandarine but not limited to those), and;
- v. Livestock products (including pork, chicken and beef).
- vi. Fish

The implications of the National Food and Nutrition Security Policy (NFNSP) are clear and include the following. *First*, the NFNSP requires that the Government of Seychelles assumes its position of facilitating the development and growth of the agricultural sector. Among others, this entails provision

of effective coordination and ensuring that the various interventions are coherent and consistent with the long-term development goals of the sector. The development and implementation of the SNAIP under the CAADP framework provides a unique opportunity for Government to undertake these functions related to agricultural development.

*Second*, and linked to the above point, the Government of Seychelles needs to ensure the realization of food and nutrition security for its people. This should be undertaken through promotion of local production of food to the extent possible that would enhance its sovereignty, reduce its vulnerability to external shocks and contribute to improved livelihoods of its people through household income, food security and nutrition.

#### *Fisheries Policy*

The fisheries policy of the Government of Seychelles of 1986 was reformulated in 2005 in order to face the changing situation of the sector and new challenges to it. The long-term policy of the Government of Seychelles for the fisheries is “the promotion of sustainable and responsible fisheries development and optimizing the benefits from this sector for the present and future generations.” The policy statement focuses mainly on the following objectives:

- a) to promote the conservation and sustainable management of living marine resources,
- b) to establish an effectively managed and environmentally responsible aquaculture industry that contributes towards food and nutrition security and the creation of wealth in the Seychelles
- c) to maximize employment, revenue and foreign exchange earnings, through diversification including value addition
- d) increase long-term socio-economic benefits from living marine resources as part of the blue economy initiative
- e) to promote safety at sea, and
- f) to maintain Port Victoria as the major tuna landing and transshipment port in the West Indian Ocean.

Seychelles benefits greatly from EU which is the major trade partner in the fisheries industry. The EU is also the largest external partner in the development of the Fisheries sector, through the Fisheries Partnership Agreement meant to support the implementation of the Seychelles Fisheries Development Policy.

#### *Disaster Management Policy*

In 2008, Seychelles formulated a Disaster Management Policy that covers contingency plans for the major hazards affecting Seychelles. The major disasters include: droughts, floods, landslides, tsunami and other seismic activity, terrorism and bio-terrorism, fires, lightning, industrial hazards and pollution, human disease epidemics, livestock and wildlife diseases, pest infestation, transport accidents (including air and sea). A number of these disasters have been among the major external factors that have contributed immensely towards Seychelles' food security vulnerability which SNAIP is seeking to redress.

The main objectives of the Disaster Management Policy are as follows:

- a) To guide the establishment of a permanent disaster management process in the country in which risk identification and reduction, preparedness, mitigation and recovery are planned, implemented and evaluated;
- b) To assist in the development of a strengthened and coordinated institutional framework for disaster management, and;
- c) To promote effective coordinated actions amongst all stakeholders involved from Government, private sector, NGO's, communities and the population in general to conduct disaster management activities in Seychelles.

## **5.2. Institutional Framework for Implementation**

It is important to note that the implementation of the SNAIP will go beyond government structures. The Seychelles agricultural sector has a number of institutions; public, quasi-government and private. A number of these institutions will be directly involved in implementing the SNAIP namely, Ministry of Fisheries & Agriculture, Seychelles Agricultural Agency and Seychelles Fishing Authority and other stakeholder institutions. This underscores the need for a well thought through institutional and management framework to facilitate effective SNAIP implementation.

The Ministry responsible for agriculture has the mandate for policy setting, while its implementation is entrusted to the Seychelles Agricultural Agency (SAA) and Seychelles Fisheries Authority (SFA), see Annex 6 for the Organizational Chart of the Ministry of Fisheries & Agriculture. At grassroots level, a number of Associations exist. On Mahe Island, the Val d'Andore Farmers' Association, the Seychelles Farmers' Association, Fishermen and Boat Owners Association and the Bel-Ombre Fishermen's Association are some of the active relevant associations. Praslin and La Digue have each a fishers association.

The provision of agricultural education is done by two institutions, both under the Ministry responsible for Education: (i) The Seychelles Agricultural and Horticultural Training Centre which provides one and two year courses in general agricultural techniques as well as in-service training for the farming community, and; (ii) The Maritime Training Centre which offers courses in basic maritime training including modules related to fisheries.

#### *Public institutions*

Seychelles has a total of 13 ministries, including the Ministry of Fisheries & Agriculture (MF&A).<sup>2</sup> MF&A oversees two entities involved in the day to day implementation of the ministry's mandate, the Seychelles Agricultural Agency and the Seychelles Fishing Authority. A host of government ministries and institutions are involved in undertaking activities that also impact on different aspects of the agricultural activities in one way or the other. These include: Ministry of Fisheries & Agriculture; Ministry of Environment; Ministry of Land Use and Housing; Ministry of Finance Trade and Industry; Ministry of Education; Ministry of Health; Public Utilities Corporation, and; Disaster and Risk Management Unit (etc.). These institutions require greater coordination amongst themselves to allow better information flow.

#### *Semi-autonomous and Parastatal Institutions*

Various other national institutions are involved and collaborate with the Agriculture Ministry in the implementation of the Seychelles' agricultural development agenda. Most of these institutions are either semi-autonomous or parastatal. These include the Seychelles Fishing Authority (SFA); the Seychelles Agricultural Agency (SAA); the Seychelles National Parks Authority (SNPA), responsible for forestry matters, the National Statistics Bureau (NSB); Seychelles Bureau of Standards (SBS), Public Utilities Corporation and; the Seychelles Investment Bureau (SIB).

#### *Private Sector Institutions and NGOs*

These include: the Seychelles Farmers' Association; the Fishing Boat Owners Association; the Indian Ocean Tuna Limited; the Seychelles Chamber of Commerce and Industry; Nature Seychelles; the Plant Conservation Action Group, and; the Island Conservation Society.

**Technical and budgetary coordination of the SNAIP will be the responsibility of the Ministry of Fisheries & Agriculture** and its organisations, which will be responsible for its implementation within its programme- and results- based approach, with sub-programmes, projects and the organisational structures which support them arranged under a number of programmes. Programmes may comprise one or more projects, which may have project management units answerable to the CEO of the

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<sup>2</sup> Apart from the Ministry of Fisheries & Agriculture, others are: (i) Social Affairs, Community Development and Sports; (ii) Home Affairs and Transport; (iii) Education; (iv) Foreign Affairs; (v) Finance, Trade and Investment; (vi) Health; (vii) Tourism and Culture; (viii) Environment and Energy; (ix) Labour and Human Resources Development, and; (x) Land Use and Housing.

Agriculture or Fisheries Agencies. Overall coordination will be the responsibility of the Principal Secretary in the Ministry of Fisheries & Agriculture.

The implementation modalities will define and establish new mechanisms or use existing ones within the Ministry and/or other inter-ministerial coordination structures and platforms. This is particularly important for assisting the implementing parties in discharging their responsibilities.

**Collaboration with other Line Ministries and Agencies:** The Ministry of Fisheries & Agriculture (MF&A), will coordinate closely with other technical ministries, departments and agencies the responsibilities of which intersect and relate to delivering on Government's agricultural development goals. These include those dealing with water (PUC), land, finance, health (nutrition and food safety) and education, environment (forestry), among others.

Within the first six months of SNAIP's implementation, there will be need for MF&A to identify existing structures/fora for inter-ministerial/government coordination. Out of these, at least one or two with highest potential should be targeted for deliberate strengthening. Activities aimed at strengthening such fora should include: (i) strengthening/recasting and clarifying the Terms of Reference (ToRs); (ii) regularizing the meeting schedules, and; (iii) defining the roles and responsibilities of each member institution.

The Principal Secretary (PS) of the Ministry of Fisheries & Agriculture should be the chair of the fora and will be expected to direct the fora in such a way that promotes optimum implementation and coordination of the SNAIP. One other forum should be identified/strengthened or established (where there is nothing currently in existence) the membership of which should be broad based, targeting all the SNAIP's major stakeholder categories, namely: government, quasi-government, private sector and farmer organizations. A similar process of strengthening/operationalizing the broad-based forum, as the one highlighted above relating to government stakeholders, should be carried out. Given the overall responsibility of MF&A, that of over-seeing the SNAIP's implementation and coordination, the PS of MF&A should chair the broad-based stakeholder forum. In a bid to reduce work-load on the already overstretched government officials, particularly, it is suggested that the two fora meet 2 to 3 times a year with the government forum meeting just before the other so as to provide input into the broad-based forum. The agenda for both meetings could include: implementation progress (both physical and financial); key challenges needing solutions and work plan for the next 4 to 6 months, among others.

**Programme and project approach:** The SNAIP identified five main programme thrusts. Implementation arrangement will sustain a programme approach emphasising the inter-dependence and complementarities across the Programme and sub-programme areas. Implementation of the SNAIP has an integral part the strengthening of staff capacity (numbers and skills) as well as management support including a Participatory Monitoring and Evaluation (PM&E) system as part of the efforts to ensure appropriate coordination, planning, monitoring and evaluation.

### **5.3. Financing modalities**

Because of its Middle-Income status, Seychelles does not have access to many concessionary loans and grants from its development partners. Therefore for the sake of the effective implementation of the SNAIP, a strong drive and promotion mechanism will be required to mobilise the required funding from all potential partners including funding agencies, public and private sectors. In any case the expectation is that the SNAIP's implementation process will align with on-going national budgeting and programming processes, as per MFTBE guidance. One such on-going tool is the Programme Performance Based Budgeting, which is being piloted in MF&A and the Ministry of Education, but will be rolled out across the civil service over the next two years.

The priorities reflected in the SNAIP should guide the annual budget preparation process for 2015 fiscal year, based on MFTBE's guidance and instructions regarding format, and budget ceilings. If necessary, further prioritisation should be undertaken for any given year. Alternative financing by the private sector and public-private partnerships shall be explored.

Notwithstanding the above issues, the financing modalities of the SNAIP will be flexible, allowing the participating cooperating partners and the other actors to meet their reporting obligations while at the same time aligning themselves to government accountability systems and formats. Nonetheless, the preferred financing modality is the Direct Budget Support (DBS) on account of its several advantages, including allowing government flexibility to spend according to the identified priorities, be it for the entire programme implementation period or the annual work-planning and budgeting process. In this regard, the tool that will be used for SNAIP is the Programme Performance Based Budgeting under pilot.

#### **5.4. Monitoring and Evaluation and Mutual Accountability**

##### *Monitoring and Evaluation*

Monitoring and evaluation is an essential tool for managing government programmes. It is used for accountability, decision making and programme improvement and involves looking at the appropriateness, efficiency and effectiveness of a programme. Monitoring and evaluation can identify where a programme is heading, how it will get there, whether it is heading in the right direction and whether it is using resources in the most cost effective manner.

An M&E unit should be set up within the Ministry of Fisheries & Agriculture which will be responsible for overseeing the general running of the SNAIP and the collection of data for the indicator work at output and outcome level as well as the impact indicators, based on its results-based logical framework and M&E system. Ideally, data on these indicators would be collected through annual surveys but a general lack of human capacity may limit the surveys to every 2 or 3 years. The M&E unit should not only oversee the running of the SNAIP but should also ensure the smooth running of all projects of the Ministry of Fisheries & Agriculture.

Data collection for the SNAIP will be made by the Ministry of Fisheries & Agriculture whilst the SAA and SFA will be doing the implementation. One of the major limitations of implementing the SNAIP is the lack of workers at both implementing agencies: SAA and SFA. This will have to be seriously reviewed if this programme is to be a success.

Currently, a Statistics Unit within the SAA is responsible for the collection and publication of all agricultural statistics within the Ministry of Fisheries & Agriculture . Some of the main statistics collected are local production of both crops and livestock, importation of crops and livestock commodities, market price and general information on farmers. This unit though is greatly undermined by a lack of human capacity as there is currently only one worker within the unit. This has seriously affected the work that this unit is doing with the last available publication on local production through the agricultural census of 2011. If there is to be good data collection and annual publication on local production as currently required there is an urgent need to upgrade this unit. This unit should also work in close conjunction with the M&E unit but all data are to be collected through the statistics unit.

In 2011 the first such census of agriculture in over 33 years was launched in the Seychelles. The Census of Agriculture was planned over a considerable period of time. It was integrated with the Census of Population and Housing, August 2010 (CoPH2010), which was used to establish the household frame and to collect data on livestock at the household level. This was vital as data were collected not only on commercial farmers but also for all non-commercial agricultural activities so as to have a comprehensive report on the status of agriculture in the Seychelles.

The Seychelles Fishing Authority, on the other hand, has a much better Statistics Unit which publishes the annual report . The unit also benefits from a much better institutional arrangement whereby data are also obtained through the Monitoring, Control and Surveillance section as well as the economic intelligence unit being established. The role of this unit is to collect fisheries data with the objective of ensuring appropriate management of fishery resources, facilitate the monitoring and evaluation of project implementation and determine the socio-economic impact of the sector in Seychelles. Some of the main statistics collected is catch, fishing effort, biological parameters, processing and export information. These are also vital for research, stock assessment, and policy making.

In order to keep the cost of data collection low, it will be important that special arrangements be made between SNAIP's management and the various institutions involved in data collection. Memoranda of understanding (MoU) could be entered into that specify particular key performance indicator data that could be collected by each institution that would have an MoU arrangement with the SNAIP. This way, the proposed M&E Unit (MEU) in MF&A will be focused on filling the gaps in data collection, data analysis, interpretation and reporting. Hence, the MEU would more easily cope with the work-load and would be more manageable.

The Ministry of Fisheries & Agriculture will have a dedicated unit, under what is defined as the National Strategic Analysis and Knowledge Support System (SAKSS) to take primary responsibility for M&E based on the results framework milestone indicators. The strategy will be to establish an iterative process for identifying issues and problems to ensure that the SNAIP's focus is maintained and expected outputs and outcomes are achieved. To augment its existing resources the SAKSS should engage an M&E specialist who will have direct responsibility, on a full time basis, for aggregating and analysing M&E information from the various programmes and projects which collectively constitute the SNAIP.

The M&E system will utilise the Agricultural and Rural Development Database in the National Statistics Bureau and other relevant Government Departments, including that in the Ministry of Finance Trade and Investment. Based on existing data systems, the Ministry of Fisheries & Agriculture will set up a dedicated Knowledge and Analysis Support system aligned to the SNAIP's goals and objectives, including appropriate links to Government budget information.

For optimum performance of the SNAIP taking into account its relevance, effectiveness, efficiency and sustainability, there is need for an M&E system that is robust and cost-effective. In this regard, the SNAIP's M&E system will incorporate the following 7 major components if it is to realize its mandate: (i) clearly defined objectives; (ii) clearly defined Key Performance Indicators (KPIs) that meet SMART criteria; (iii) clearly defined data collection methods for the indicators (including frequency for data collection); (iv) institutional framework for data collection (including a definition of roles for all those involved); (v) frequency of data collection and responsibility; (vi) data analysis frequency and responsibility; and, (vii) information dissemination plan, including the audience.

The database will generate for each programme and sub-programme at different levels of government: (i) the recurrent and the capital budget and the expenditure data; and (ii) further detail as per the line items within the chart of accounts; e.g. salaries and wages, spending on fuel, capital items and agricultural inputs. In addition to capturing expenditure details, the database will also include indicators on outputs generated under each programme and sub-programme at different levels of Government, e.g. data on the percent of rural households receiving extension services, the number of new crop varieties released, or the number of hectares under small-scale irrigation.

An Annual Sector Performance Analysis (ASPA) will be undertaken and would culminate in Annual Review meetings involving all key stakeholders. This will provide a forum for sector review as well as prioritize investment areas in the coming year. Consequently, the Annual Work Plan and Budget (AWPB) for the coming year will be informed by findings from the ASPA.

Implementation of the SNAIP will be subject to independent external evaluation on at least two occasions over its six year life. This will be done by an expert review panel selected and supervised by the PS in the Ministry of Fisheries & Agriculture and the inter-Governmental coordination structures, including the National Bureau of Statistics.

#### *Mutual Accountability*

It is vital that the Seychelles and the cooperating partners work together to enhance mutual accountability and transparency in the use of development resources. This will re-enforce participatory approaches by systematically involving a broad range of stakeholders in the SNAIP's implementation process. The resulting effects will include: greater resource mobilization; better motivated SNAIP's stakeholders; leading ultimately to better achievement of the SNAIP's objective results. Mutual accountability is expected to be facilitated through the fora discussed under Section

5.2 above (institutional arrangements) as well as the Annual Sector Reviews highlighted above. Data generated by the MEU as well as the Agricultural Sector Performance Analysis (ASPA) will be particularly useful to promoting and consolidating mutual accountability.

For mutual accountability to be realized, it will be important that there be free information flow among the various SNAIP's stakeholders. Experience from other countries points to the challenge in financial information flow, particularly from cooperating partners to recipient governments.<sup>3</sup> In the case of Seychelles, this should be avoided through the following practical steps. Apart from the overall financial information for the whole programme implementation period, cooperative partners should furnish government with annual disbursements linked to the AWPB prepared following Annual Sector Reviews as pointed out earlier. During the 2 to 3 broader stakeholder fora/meetings alluded to above, all stakeholders, including cooperating partners, should submit financial information.

M&E will be undertaken at different levels to support effective implementation of the SNAIP, maintain its focus and direction, and provide information for addressing constraints and problems. The M&E function will also be critical in ensuring accountability and transparency for funds channelled through the national and the regional government systems, based on the principles and procedures applied in relevant Government instruments. This approach is consistent with the CAADP Compact in which Government and the partners agree to mobilise funds and work together to develop and implement an M&E system including peer review, analytical studies, impact assessments, and information sharing for continuous policy and programme development.

## 5.5. Risk Assessment and Management

Table 37 below identifies key risks that may be faced in the achievement of the SNAIP's overall goal and objectives and provides a basis for determining how implementers should address these risks.

Table 37: Summary of Risk Analysis and Mitigation

| Risk                                                                                                                                                                   | Risk Rating | Risk mitigation measures incorporated into SNAIP design                                                                                                                         | Risk after mitigation |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| <b>H – High; S – Substantial; M – Moderate; L – Low</b>                                                                                                                |             |                                                                                                                                                                                 |                       |
| <b>Ownership challenge:</b> Inadequate country ownership of the SNAIP by MFTBE and other stakeholders may negatively affect implementation performance                 | S           | SNAIP has identified and specified implementation roles and responsibilities of various actors and stakeholders, and MFTBE has realised that Agriculture is an important sector | M                     |
| <b>Low capacity challenge:</b> MF&A will play a critical role in coordination and monitoring of the SNAIP. However, current capacity is seen as weak.                  | S           | A considerable portion of the SNAIP is concerned with capacity enhancement of various stakeholders and systems.                                                                 | M                     |
| <b>Resources mobilization challenges:</b> GoS may find it difficult to mobilize resources to the tune that is required, as few partners operate in the Seychelles      | M           | GoS will need to build on existing partnerships and explore new avenues to secure additional resources. It has a successful track record                                        | L                     |
| <b>Disconnect between MF&amp;A and its agencies:</b> while policy is the remit of MF&A and the agencies are tasked with implementing this, in practice the Ministry of | M           | The SNAIP is not an initiative that is a “stand-alone” entity, rather the SNAIP builds on already existing strategies, policies and processes, and which                        | M                     |

<sup>3</sup> Mutual Accountability: The Key Driver for Better Results, A Background Paper, Third International Roundtable on Managing for Development Results, Hanoi, Vietnam, February 2007.

|                                                                                                                                                                 |          |                                                                                                      |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------|----------|
| Fisheries & Agriculture could improve its coordination role and ensure that data flow from the agencies to the soon to be created M&E (SAKSS) unit to be set-up |          | foresees the strengthening of MF&A's coordination role both within the sector and with other sectors |          |
| <b>Overall risk assessment</b>                                                                                                                                  | <b>M</b> |                                                                                                      | <b>L</b> |

## **ANNEXES**

1. HIGH LEVEL LOG FRAME
2. BUDGET
3. IMPLEMENTATION PLAN OUTLINE
4. LIST OF PARTNERS AND ONGOING PROJECTS
5. **LIST OF PEOPLE CONSULTED IN THE ELABORATION OF SNAIP**
6. **ORGANIZATIONAL CHART OF THE MINISTRY OF FISHERIES & AGRICULTURE**

## Annex 1: The SNAIP's High Level Logical Framework

|                                                                                                                              |                                                                                                                                                                                                                                                                                              |              |                                                               |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------|
|                                                                                                                              | [Seychelles is producing enough food to complement imports and ensure availability of food to meet the country's food security and nutrition needs and reduce risks and vulnerability in the event of local and/or external factors which may limit or hinder access to global food markets] |              |                                                               |
| SNAIP Objective / Expected Impact:                                                                                           |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Impact Indicators                                                                                                            | Baseline                                                                                                                                                                                                                                                                                     | Targets 2020 | Budget (Total SNAIP, incl contingencies, excluding salaries ) |
| % of total consumption of livestock products that is produced local                                                          | 20%                                                                                                                                                                                                                                                                                          | 50%          | Estimate: +/- 100 million USD                                 |
| % of total fruit and vegetable consumption that is produced locally                                                          | 46%                                                                                                                                                                                                                                                                                          | 56%          | Currently in SCR                                              |
| Number of people on social welfare program                                                                                   | 10,000                                                                                                                                                                                                                                                                                       | 5,000        | 1,295,632,605                                                 |
| Non-Communicable Disease prevalence is reduced                                                                               | 63%                                                                                                                                                                                                                                                                                          | 53%          | Currently in USD                                              |
| Reduce overexploitation of demersal fish species (red snapper and                                                            | 2                                                                                                                                                                                                                                                                                            | 0            | 104,486,500                                                   |
| Programme 1: Protection and Sustainable use of Agricultural Land and Water                                                   |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Expected Outcome 1                                                                                                           | Factors of production (land and water) secured and sustainably used                                                                                                                                                                                                                          |              |                                                               |
| Outcome Indicators                                                                                                           | Baseline                                                                                                                                                                                                                                                                                     | Target 2020  | Budget (Programme 1 )                                         |
| % of agricultural land area being used (based MLUH satellite image                                                           | 70%                                                                                                                                                                                                                                                                                          | 90%          | 100,024,997                                                   |
| % of commercial farmers that use 80% of their land lease                                                                     | 50%                                                                                                                                                                                                                                                                                          | 90%          |                                                               |
| Sub-Programme 1.1: Protect Agriculture Land Resource                                                                         |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Expected Intermediate Outcome 1.1                                                                                            | 100% of agricultural land is protected                                                                                                                                                                                                                                                       |              |                                                               |
| Indicators                                                                                                                   | Baseline                                                                                                                                                                                                                                                                                     | Target 2020  | Budget (Sub-Programme 1.1)                                    |
| Area demarcated for agricultrue land use (ha)                                                                                | 375                                                                                                                                                                                                                                                                                          | 500          | 9,958,912                                                     |
| Percentage of total lease collected (%)                                                                                      | 70%                                                                                                                                                                                                                                                                                          | 100%         |                                                               |
| Sub- Programme 1.2: Reduce degradation of agricultural land through implementation of an effective land and water management |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Expected Intermediate Outcome 1.2                                                                                            | 75% of total agricultural land has an effective preventive degradation measure                                                                                                                                                                                                               |              |                                                               |
| Indicators                                                                                                                   | Baseline                                                                                                                                                                                                                                                                                     | Target 2020  | Budget (Sub-Programme 1.2)                                    |
| Number of ha under SWC                                                                                                       | 100                                                                                                                                                                                                                                                                                          | 180          | 37,524,656                                                    |
| Number of ha under SLM                                                                                                       | 100                                                                                                                                                                                                                                                                                          | 180          |                                                               |
| Sub-Programme 1.3: Increase irrigation of agricultural land                                                                  |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Expected Intermediate Outcome 1.3                                                                                            | % of total agricultural land under irrigation                                                                                                                                                                                                                                                |              |                                                               |
| Indicators                                                                                                                   | Baseline                                                                                                                                                                                                                                                                                     | Target 2020  | Budget (Sub-Programme 1.3)                                    |
| Number of ha under irrigation                                                                                                | 50                                                                                                                                                                                                                                                                                           | 100          | 39,290,680                                                    |
| Number of WUA established (1 per scheme)                                                                                     | 0                                                                                                                                                                                                                                                                                            | 12           |                                                               |
| Sub-Programme 1.4: Improve land use efficiency through the promotion of food tree crops, agr-forestry and agro-tourism       |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Expected Intermediate Outcome 1.4                                                                                            | 200 ha of land under agro forestry and agro-tourism                                                                                                                                                                                                                                          |              |                                                               |
| Indicators                                                                                                                   | Baseline                                                                                                                                                                                                                                                                                     | Target 2020  | Budget (Sub-Programme 1.4)                                    |
| Area of land brought under agro-forestry (ha)                                                                                | 0                                                                                                                                                                                                                                                                                            | 50           | 13,250,749                                                    |
| Number of ha planted under food trees                                                                                        | 5                                                                                                                                                                                                                                                                                            | 50           |                                                               |
| Number of ha planted under fruit trees                                                                                       | 25                                                                                                                                                                                                                                                                                           | 100          |                                                               |
|                                                                                                                              |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Programme 2: Productivity, Commercialization and Diversification of Crops and Livestock                                      |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Expected Outcome 2                                                                                                           | nhanced and that commodity-specific value chains for crops and livestock are                                                                                                                                                                                                                 |              |                                                               |
| Outcome Indicators                                                                                                           | Baseline                                                                                                                                                                                                                                                                                     | Target 2020  | Budget (Programme 2 )                                         |
| % of crop produced locally                                                                                                   | 48                                                                                                                                                                                                                                                                                           | 55           | 381,738,230.29                                                |
| % of livestock produced locally                                                                                              | 11                                                                                                                                                                                                                                                                                           | 25           |                                                               |
| # ha under IPM, ICM, GAP                                                                                                     | 0                                                                                                                                                                                                                                                                                            | 225          |                                                               |
| Sub-Programme 2.1 : Development of livestock commodities and value chains (poultry, pigs, goat)                              |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Expected Intermediate Outcome 2.1                                                                                            | Local livestock productivity and production is increased                                                                                                                                                                                                                                     |              |                                                               |
| Indicators                                                                                                                   | Baseline                                                                                                                                                                                                                                                                                     | Target 2020  | Budget (Sub-Programme 2.1)                                    |
| # new livestock breeds introduced                                                                                            | 0                                                                                                                                                                                                                                                                                            | 20           | 183,940,705                                                   |
| % livestock farmers that practice AI                                                                                         | 0%                                                                                                                                                                                                                                                                                           | 20%          |                                                               |
| Sub-Programme 2. 2: Development of crop commodities and value chains (root crops, fruit and vegetables)                      |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Expected Intermediate Outcome 2.2                                                                                            | Increase in local crop productivity and production                                                                                                                                                                                                                                           |              |                                                               |
| Indicators                                                                                                                   | Baseline                                                                                                                                                                                                                                                                                     | Target 2020  | Budget (Sub-Programme 2.2)                                    |
| % of farmers that adopt IPM, ICM and GAP                                                                                     | 0                                                                                                                                                                                                                                                                                            | 60%          | 52,621,053                                                    |
| # farmers that receive extension advice through ODL                                                                          | 0                                                                                                                                                                                                                                                                                            | 1000         |                                                               |
| % farmers that use improved OPV seed for vegetables                                                                          | 30%                                                                                                                                                                                                                                                                                          | 60%          |                                                               |
| # of commercial farmers on contract                                                                                          | 0                                                                                                                                                                                                                                                                                            | 200          |                                                               |
| Sub-Programme 2.3: Provision of effective bio-security services                                                              |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Expected Intermediate Outcome 1.1                                                                                            | Decrease in population of pest and disease                                                                                                                                                                                                                                                   |              |                                                               |
| Indicators                                                                                                                   | Baseline                                                                                                                                                                                                                                                                                     | Target 2020  | Budget (Sub-Programme 2.3)                                    |
| Reduction in occurrence of new pests and diseases                                                                            | 2                                                                                                                                                                                                                                                                                            | 0            | 77,772,392                                                    |
|                                                                                                                              |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Sub-Programme 2.4: Access to finance and insurance products                                                                  |                                                                                                                                                                                                                                                                                              |              |                                                               |
| Expected Intermediate Outcome 1.1                                                                                            | An effective insurance scheme for farmers                                                                                                                                                                                                                                                    |              |                                                               |
| Indicators                                                                                                                   | Baseline                                                                                                                                                                                                                                                                                     | Target 2020  | Budget (Sub-Programme 2.4)                                    |
| Amount of farmers joining the agricultural insurance scheme                                                                  | 70                                                                                                                                                                                                                                                                                           | 200          | 67,404,080                                                    |
| Number of successful applicants for an agricultural loan                                                                     | 50                                                                                                                                                                                                                                                                                           | 100          |                                                               |
| % of Agriculture Development Fund portfolio at risk                                                                          | -                                                                                                                                                                                                                                                                                            | 5%           |                                                               |

| Programme 3. Sustainable Fisheries Management and Aquaculture Development                                       |  |                                                                                             |             |                            |
|-----------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------|-------------|----------------------------|
| Expected Outcome 3                                                                                              |  | Fisheries and aquaculture revenue is increased while preserving the                         |             |                            |
| Outcome Indicators                                                                                              |  | Baseline                                                                                    | Target 2020 | Budget (Programme 3)       |
| Tonnes of artisanal fisheries landed                                                                            |  | 2,500                                                                                       | 3,000       | 652,476,048                |
| Tonnes of semi-industrial fisheries landed                                                                      |  | 270                                                                                         | 400         |                            |
| Tonnes of industrial fisheries landed (both purse seine and longlin                                             |  | 210,000                                                                                     | 250,000     |                            |
| Tonnes of mariculture fish harvested                                                                            |  | 0                                                                                           | 5000        |                            |
| Catch diversification index (0 being least diversified)                                                         |  | 0.25                                                                                        | 0.5         |                            |
| Sub- Programme 3. 1: Artisanal fisheries                                                                        |  |                                                                                             |             |                            |
| Expected Intermediate Outcome 3.1                                                                               |  | revenue for artisanal fishers through sustainable management of reef and demersal fisheries |             |                            |
| Indicators                                                                                                      |  | Baseline                                                                                    | Target 2020 | Budget (Sub-Programme 3.1) |
| # of functioning artisanal fishers associations                                                                 |  | 6                                                                                           | 8           | 155,844,297                |
| % increase in fishing effort                                                                                    |  | 20%                                                                                         | 40%         |                            |
| % artisanal fishers implementing a management plan                                                              |  | 30%                                                                                         | 80%         |                            |
| % artisanal fishers using improved gear                                                                         |  | 30%                                                                                         | 60%         |                            |
| Sub-Programme 3. 2: Semi-industrial fisheries                                                                   |  |                                                                                             |             |                            |
| Expected Intermediate Outcome 3.2                                                                               |  | Better market for semi-industrial catch                                                     |             |                            |
| Indicators                                                                                                      |  | Baseline                                                                                    | Target 2020 | Budget (Sub-Programme 3.2) |
| % of semi-artisanal fish products that are certified                                                            |  | 0%                                                                                          | 70%         | 60,933,344                 |
| % of semi-artisanal fish products that are tested for heavy metal                                               |  | 0%                                                                                          | 70%         |                            |
| Sub-Programme 3. 3: Industrial fisheries                                                                        |  |                                                                                             |             |                            |
| Expected Intermediate Outcome 3.3                                                                               |  | Better protection for the industrial fleet                                                  |             |                            |
| Indicators                                                                                                      |  | Baseline                                                                                    | Target 2020 | Budget (Sub-Programme 3.3) |
| % of Autonomous power supply vessels equipped with VMS transceivers                                             |  | 100%                                                                                        | 100%        | 41,347,501                 |
| # of licences for industrial fisheries                                                                          |  | 10                                                                                          | 15          |                            |
| Number of fishing days observed on foreign fleets                                                               |  | na                                                                                          | 405         |                            |
| Number of anchored FADs installed                                                                               |  | 6                                                                                           | 4           |                            |
| Improved reporting and reduction of the bycatch incidence                                                       |  | 15%                                                                                         | 10%         |                            |
| Sub-programme 3.4: Develop marketing and value chain of fish products and improve access to sustainable finance |  |                                                                                             |             |                            |
| Expected Intermediate Outcome 3.4                                                                               |  | Better market for fisheries                                                                 |             |                            |
| Indicators                                                                                                      |  | Baseline                                                                                    | Target 2020 | Budget (Sub-Programme 3.4) |
| Number of loans approved                                                                                        |  | 60                                                                                          | 120         | 155,719,965                |
| # of fish farmers on contract                                                                                   |  | 0                                                                                           | 50          |                            |
| Disbursement rate                                                                                               |  | 49%                                                                                         | 80%         |                            |
| Reimbursement rate                                                                                              |  | 4,6%                                                                                        | 100%        |                            |
|                                                                                                                 |  |                                                                                             |             |                            |
| Sub-Programme 3.5. Development of Mariculture commodities and value chains                                      |  |                                                                                             |             |                            |
| Expected Intermediate Outcome 3.5                                                                               |  | Mariculture is set up successfully                                                          |             |                            |
| Indicators                                                                                                      |  | Baseline                                                                                    | Target 2020 | Budget (Sub-Programme 3.5) |
| Tonnes of mariculture fish harvested                                                                            |  | 0                                                                                           | 5000        | 158,396,763                |
| Annual FDI in mariculture                                                                                       |  | 10                                                                                          | 50          |                            |
| Sub-Programme 3.6. Post harvest and seafood value addition                                                      |  |                                                                                             |             |                            |
| Expected Intermediate Outcome 3.6                                                                               |  | Improved quality of post harvest catch                                                      |             |                            |
| Indicators                                                                                                      |  | Baseline                                                                                    | Target 2020 | Budget (Sub-Programme 3.5) |
| Percentage of fisheries sensitized on post harvest catch                                                        |  | 25                                                                                          | 75          | 80,234,179                 |
| Number of fish centre set up                                                                                    |  | 0                                                                                           | 1           |                            |

| Programme 4: Food Security and Nutrition                                                                                                            |                                                                                                                                                         |             |                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------|
| Expected Outcome 4                                                                                                                                  | Increase in population that is food secure                                                                                                              |             |                            |
| Outcome Indicators                                                                                                                                  | Baseline                                                                                                                                                | Target 2020 | Budget (Programme 4)       |
| % of Seychelles Population that is food secure                                                                                                      | 80%                                                                                                                                                     | 95%         | 12,175,447                 |
| % of Seychelles population that consumes 5 portions of fruit/vegetables                                                                             | 40%                                                                                                                                                     | 50%         |                            |
| Sub-Programme 4.1: Set-up a national contingency plan to improve resilience of food system to external                                              |                                                                                                                                                         |             |                            |
| Expected Intermediate Outcome 4.1                                                                                                                   | A national plan is developed                                                                                                                            |             |                            |
| Indicators                                                                                                                                          | Baseline                                                                                                                                                | Target 2020 | Budget (Sub-Programme 4.1) |
| A national contingency plan developed                                                                                                               | n.a.                                                                                                                                                    | available   | 1,827,000                  |
| Sub-Programme 4.2: Improve nutrition practices at Hh level                                                                                          |                                                                                                                                                         |             |                            |
| Expected Intermediate Outcome 4.2                                                                                                                   | Consumption of better food at household level                                                                                                           |             |                            |
| Indicators                                                                                                                                          | Baseline                                                                                                                                                | Target 2020 | Budget (Sub-Programme 4.2) |
| % of schools with a functioning home garden                                                                                                         | 0%                                                                                                                                                      | 80%         | 3,880,037                  |
| % of farmers (hh) that use improved food consumption/preparation                                                                                    | 0%                                                                                                                                                      | 50%         |                            |
| % of population that have a diversified diet                                                                                                        | 30%                                                                                                                                                     | 45%         |                            |
| Sub-Programme 4.3:Strengthen food security and nutrition monitoring (annual survey, VAC)                                                            |                                                                                                                                                         |             |                            |
| Expected Intermediate Outcome 4.3                                                                                                                   | Surveys is developed to measure food security                                                                                                           |             |                            |
| Indicators                                                                                                                                          | Baseline                                                                                                                                                | Target 2020 | Budget (Sub-Programme 4.3) |
| VAC held, including annual survey                                                                                                                   | No                                                                                                                                                      | Yes         | 6,468,410                  |
|                                                                                                                                                     |                                                                                                                                                         |             |                            |
| Programme 5. Human and Institutional Capacity Development, including knowledge, information support, M&E and coordination                           |                                                                                                                                                         |             |                            |
| Expected Outcome 5                                                                                                                                  | Enable a private sector driven local agricultural system, providing viable and predictable needs for business as well as social benefits for the public |             |                            |
| Outcome Indicators                                                                                                                                  | Baseline                                                                                                                                                | Target 2020 | Budget (Programme 5)       |
| Number of organizations in the agriculture and fisheries sector that participate actively in sector dialogue with the Government (MNR, SAA and SFA) | 2                                                                                                                                                       | 20          | 149,217,882                |
|                                                                                                                                                     |                                                                                                                                                         |             |                            |
| Sub-Programme 5.1 : Support to agriculture sector knowledge management                                                                              |                                                                                                                                                         |             |                            |
| Expected Intermediate Outcome 5.1                                                                                                                   | An appropriate knowledge and technological support system strengthened,                                                                                 |             |                            |
| Indicators                                                                                                                                          | Baseline                                                                                                                                                | Target 2020 | Budget (Sub-Programme 5.1) |
| Number of students graduating from Horticulture training centre/year                                                                                | 50                                                                                                                                                      | 80          | 75,684,099                 |
| Number of innovation research projects approved/year                                                                                                | 0                                                                                                                                                       | 10          |                            |
| Sub-Programme 5.2 : Support agriculture sector institutions' capacities                                                                             |                                                                                                                                                         |             |                            |
| Expected Intermediate Outcome 5.2                                                                                                                   | Farmers organizations are strengthened and better able to engage in sector                                                                              |             |                            |
| Indicators                                                                                                                                          | Baseline                                                                                                                                                | Target 2020 | Budget (Sub-Programme 5.2) |
| Number of organizations in the agriculture and fisheries with strengthened capacities                                                               | 0                                                                                                                                                       | 10          | 1,736,915                  |
| Sub-Programme 5.3. Support the policy, governance and regulatory framework                                                                          |                                                                                                                                                         |             |                            |
| Expected Intermediate Outcome 5.3                                                                                                                   | Facilitate and sustain a favourable legal, policy and institutional environment                                                                         |             |                            |
| Indicators                                                                                                                                          | Baseline                                                                                                                                                | Target 2020 | Budget (Sub-Programme 5.3) |
| Number of policies and regulations that are endorsed by Cabinet and published in the Official Gazette, on an annual basis                           | 3                                                                                                                                                       | 6           | 68,347,945                 |
| SAA relocates to Union Vale Building                                                                                                                | no                                                                                                                                                      | yes         |                            |
| Sub-Programme 5.4. SNAIP Coordination and implementation                                                                                            |                                                                                                                                                         |             |                            |
| Expected Intermediate Outcome 5.4                                                                                                                   | Improved coordination allows MNR and its institutions to provide effective                                                                              |             |                            |
| Indicators                                                                                                                                          | Baseline                                                                                                                                                | Target 2020 | Budget (Sub-Programme 5.4) |
| Number of SNAIP coordination meetings with ample participation of all sector stakeholders that are held per year                                    | 0                                                                                                                                                       | 2           | 3,448,924                  |
| MNR structure is better aligned to its mandate                                                                                                      | no                                                                                                                                                      | yes         |                            |

## Annex 2a: Detailed budget tables – output indicators and targets

| 1. Protection and Sustainable use of Agricultural Land and Water                                                                                                                                                        | OUTPUT INDICATORS                                           |                        |            |            |                | 92,698,000           | BENEFICIARIES |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------|------------|------------|----------------|----------------------|---------------|--|
| 1.1. Protect agricultural land resources                                                                                                                                                                                | INDICATOR                                                   | UNIT                   | Qty TARGET | UNIT COST  | Total BaseCost | Type                 | Number        |  |
|                                                                                                                                                                                                                         |                                                             |                        |            |            | 9,450,000      |                      |               |  |
| 1.1.1 : Establish a legally binding national land use plan, specifying areas dedicated for agriculture use                                                                                                              | National land use plan established                          | # plan                 | 1          | 250,000    | 250,000        | Potential Developers | 125           |  |
| 1.1.2. Establish and operationalize a legally binding framework of allocating and retracting land                                                                                                                       | Framework established by a legal officer                    | person-month           | 1          | 300,000    | 300,000        | Farmers              | 1000          |  |
| 1.1.3 Mobilize and sensitize MP, public on the importance of agriculture land and the responsibility of all to use it efficiently                                                                                       | Number of people sensitized                                 | # people               | 120,000    | 10         | 1,200,000      | Total Population     | 91000         |  |
| 1.1.4. Continue to demarcate land for agricultural use                                                                                                                                                                  | Number of ha demarcated for agricultural use                | # ha                   | 100        | 50,000     | 5,000,000      | Farmers              | 100           |  |
| 1.1.5. Train SAA and MLUH staff in land administration and GIS technique                                                                                                                                                | Number of staff trained in GIS techniques                   | # staff                | 10         | 80,000     | 800,000        | SAA staff            | 3             |  |
| 1.1.6. Procurement of GIS equipment                                                                                                                                                                                     | Number of equipment procured                                | # equipments           | 30         | 50,000     | 1,500,000      | SAA and farmers      | 633           |  |
| 1.1.7. Review current leases with a view of increasing use of agriculture land, and ensuring registered farmers pay the land tax/levy                                                                                   | Number of farmers that pay land tax                         | # farmers              | 800        | 500        | 400,000        | SAA and farmers      | 800           |  |
| 1.2. Reduce degradation of agricultural land through effective land and water management                                                                                                                                | INDICATOR                                                   | UNIT                   | Qty TARGET | UNIT COST  | Total BaseCost | Type                 | Number        |  |
|                                                                                                                                                                                                                         |                                                             |                        |            |            | 35,500,000     |                      |               |  |
| 1.2.1. Develop and promote SWC techniques (incl contour ridges, pit basin, terraces) for commercial and non commercial farmers and potential farmers                                                                    | Number of farmers trained in SWC                            | # Farmers              | 1000       | 2,000      | 2,000,000      | farmer               | 1000          |  |
| 1.2.2. Develop and promote SLM techniques and practices (including conservation agriculture, soil cover, mulching, composting, manure)                                                                                  | Number of farmers trained in SLM                            | # Farmers              | 1000       | 2,000      | 2,000,000      | farmer               | 1000          |  |
| 1.2.3. Train trainers in the above techniques and set-up trial and demonstration plots                                                                                                                                  | Number of trainers trained in SWC, SLM and Water Harvesting | # staff                | 50         | 70,000     | 3,500,000      | Extension            | 10            |  |
| 1.2.4 Sustainability of the national IAEA projects on soil and soil salinity using the laboratory as an education facility for national and international students while on further studies                             | Number of equipments                                        | # equipments           | 1000       | 2,000      | 2,000,000      | farmers              | 1000          |  |
| 1.2.5. Modern mechanization of the Anse Boileau Research centre                                                                                                                                                         | Number of mechanized equipments                             | # equipments           | 10         | 500,000    | 5,000,000      | farmers              | 1000          |  |
| 1.2.6. Construction of the Anse Boileau Research Facility and its infrastructure                                                                                                                                        | Building constructed                                        | # building constructed | 1          | 15,000,000 | 15,000,000     | SAA                  |               |  |
| 1.2.7. Construction of the tissue culture lab and its equipments                                                                                                                                                        | Number of lab constructed                                   | Lumpsum                | 1          | 6,000,000  | 6,000,000      | farmers              | 1000          |  |
| 1.3. Increase water use efficiency and irrigation of agricultural land                                                                                                                                                  | INDICATOR                                                   | UNIT                   | Qty TARGET | UNIT COST  | Total BaseCost | Type                 | Number        |  |
|                                                                                                                                                                                                                         |                                                             |                        |            |            | 35,138,000     |                      |               |  |
| 1.3.1. Construct and rehabilitate irrigation distribution network (pipes, sprinkler, pressurized drop, drop) for registered farmers                                                                                     | Number of rrigation distribution network set-up             | # irrigation scheme    | 6          | 576,000    | 3,456,000      | farmer               | 500           |  |
| 1.3.2. Construct and rehabilitate barrages and reservoirs that will provide water for agriculture use                                                                                                                   | Number of barrage and reservoir constructed                 | # barrage              | 10         | 2,000,000  | 20,000,000     | farmer               | 100           |  |
| 1.3.3. Promote, establish and strenghen water users associations linked to small-scale irrigation schemes                                                                                                               | Number of water user association set up                     | # WUA                  | 12         | 36,000     | 432,000        | farmer               | 200           |  |
| 1.3.4. Strengthen the irrigation unit to manage irrigation water use for agricultural production including the installation of water metering devices for each farmers and at the outlet of the barrages and reservoirs | Number of meter installed                                   | # meter                | 750        | 7,000      | 5,250,000      | farmer               | 750           |  |
| 1.3.5. Construction of new and rehabilitation existing agricultural drainage system on Mahe, Praslin and La Digue                                                                                                       | Number of drainage built and rehabilitate                   | # drainage             | 10         | 600,000    | 6,000,000      | farmer               | 750           |  |
| 1.3.6 Revision of the regulatory framework for water, and study possibility of setting-up a Water Resources Board, where MNR/SAA/SFA could participate in water use discussions and allocations between sectors         | Number of studies carried out                               | #study                 | 1          | 300,000    | 300,000        | SAA                  | 100           |  |
| 1.3.7 Promote platform to discuss water allocation/use between various sectors                                                                                                                                          | Number of workshops                                         | #workshops             | 12         | 120,000    | 1,440,000      | public               | 91000         |  |
| 1.4. Improve land use efficiency through the promotion of food tree crops, agro-forestry and agrotourism                                                                                                                | INDICATOR                                                   | UNIT                   | Qty TARGET | UNIT COST  | Total BaseCost | Type                 | Number        |  |
|                                                                                                                                                                                                                         |                                                             |                        |            |            | 12,610,000     |                      |               |  |
| 1.4.1. Identify forestry areas where agroforestry could also be promoted, based on studies and pilot schemes                                                                                                            | Number of Ha identified for agro forestry                   | # ha                   | 40         | 100,000    | 4,000,000      | Farmers              | 40            |  |
| 1.4.2. Promote food trees such as breadfruit tree, jack tree in both forestry areas and backyard farms                                                                                                                  | Number of commercial and backyard farmers sensitized        | # people               | 1000       | 20         | 20,000         | Farmers              | 1,000         |  |
| 1.4.3. Rehabilitate and/or construct access roads to help reach remote areas that have either Agriculture or Forestry potential                                                                                         | Number of roads constructed                                 | Km of road             | 25         | 250,000    | 6,250,000      | People               | 100           |  |
| 1.4.4. Promote fruit trees on backyard farms through improved access to seedlings and extension advice                                                                                                                  | Number of farmers trained on food and fruit tree cropping   | # farmers              | 1000       | 1,000      | 1,000,000      | Backyard farmer      | 180           |  |
| 1.4.5 Sensitize public regarding the value of consuming and growing local fruits and food trees                                                                                                                         | Number of people sensitized                                 | # people               | 120000     | 2          | 240,000        | public               | 90000         |  |
| 1.4.6. Carry out a study of agro-tourism potential on backyard farming, to assess potential for increased vegetable and fruit production for tourism market                                                             | Number of study carried out                                 | person-month           | 2          | 300,000    | 600,000        | SAA                  | n.a.          |  |
| 1.4.7. Carry out a feasibility study on providing pre project preparation for newly allocated plots                                                                                                                     | Number of study carried out                                 | person-month           | 1          | 500,000    | 500,000        | farmer               | 1000          |  |

| 2. Productivity, Commercialization and Diversification of Crops and Livestock                                                                                                                                      | OUTPUT INDICATORS                                          |                             |            |            |                | BENEFICIARIES                                      |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------|------------|------------|----------------|----------------------------------------------------|--------|
| 2.1 : Development of livestock commodities and value chains (poultry, pigs, goat)                                                                                                                                  | INDICATOR                                                  | UNIT                        | Qty TARGET | UNIT COST  | Total BaseCost | Type                                               | Number |
|                                                                                                                                                                                                                    |                                                            |                             |            |            | 170,109,999    |                                                    |        |
| 2.1.1 Carry out selected livestock product value chain studies                                                                                                                                                     | Number of studies carried out                              | person-month                | 12         | 300,000    | 3,600,000      | Decision makers and livestock pr                   | 130    |
| 2.1.2. Promote and develop good animal husbandry practices including use of biotechnologies.                                                                                                                       | Number of farms upgraded                                   | farm                        | 700        | 3,000      | 2,100,000      | Livestock producers                                | 130    |
| 2.1.3 Strengthen extension and veterinary staff capacity in animal production                                                                                                                                      | Number of extension and veterinary staff trained           | staff                       | 100        | 30,000     | 3,000,000      | SAA staff                                          | 20     |
| 2.1.4. Introduce a livestock identification and traceability system (LITS)                                                                                                                                         | Number of farms                                            | livestock farmers           | 130        | 12,000     | 1,560,000      | consumers                                          |        |
| 2.1.5: Improve the present livestock gene pool                                                                                                                                                                     | Batch and type of livestock genetic material introduced    | # genetic material          | 4000       | 1,000      | 4,000,000      | Livestock producers                                | 130    |
| 2.1.6 Introduce a poultry parent stock farm                                                                                                                                                                        | Parent stock set up                                        | lumpsum                     | 1          | 30,000,000 | 30,000,000     | Livestock farmer                                   | 130    |
| 2.1.7. Upgrading of the pig genetic centre                                                                                                                                                                         | Number of pig genetic centre upgrading                     | #                           | 1          | 730,000    | 730,000        | Pig breeders                                       | 50     |
| 2.1.8. Feasibility study for the establishment of a new and modern livestock improvement centre                                                                                                                    | Number of study carried out                                | study                       | 1          | 500,000    | 500,000        |                                                    |        |
| 2.1.9. Facilitating the actors of the livestock value chain                                                                                                                                                        | Number of actors facilitated                               | #actors                     | 300        | 10,000     | 3,000,000      | Livestock producers                                | 130    |
| 2.1.10. Promote on farm use of alternative energy through pilot projects                                                                                                                                           | Number of farms adopting alternative energy                | #farms                      | 3          | 1,000,000  | 3,000,000      | Livestock producers                                | 130    |
| 2.1.11. Construction of the veterinary laboratory                                                                                                                                                                  | Number of vet lab                                          | #                           | 1          | 8,000,000  | 8,000,000      | public                                             | 130    |
| 2.1.12. Construction of a new national abattoir/processing facilities                                                                                                                                              | Number of livestock abattoir/ facility constructed         | # livestock abattoir        | 3          | 33,333,333 | 99,999,999     | Livestock producers                                | 130    |
| 2.1.13. Support to private veterinary practices                                                                                                                                                                    | Number of consultative meetings                            | # meetings                  | 18         | 50,000     | 900,000        | private veterinary practices                       |        |
| 2.1.14 Review and update existing policies, laws and regulations pertaining to Animal Production and Health including certification of food quality according to HACCP standards                                   | Number of documents revised and updated                    | # documents                 | 4          | 180,000    | 720,000        | Livestock Producers, consumers and decision makers | 130    |
| 2.1.15 Renovate and upgrade the Ex-BBC building for Livestock department offices                                                                                                                                   | Renovation of the Ex-BBC Buiding                           | Building                    | 1          | 9,000,000  | 9,000,000      | SAA staff, Livestock Producers                     | 150    |
| 2. 2: Development of crop & horticultural commodities and value chains (root crops, fruit and vegetables)                                                                                                          | INDICATOR                                                  | NATURE                      | Qty TARGET | UNIT COST  | Total BaseCost | Type                                               | Number |
|                                                                                                                                                                                                                    |                                                            |                             |            |            | 48,808,000     |                                                    |        |
| 2.2.1 Provide extension support to farmers at (sub) district level and training them on GAP                                                                                                                        | Number of farmers receiving extension services             | # farmers                   | 1000       | 6,000      | 6,000,000      | Farmer                                             | 1000   |
| 2.2.2. Train extension workers on GAP, and set-up on-farm/plot demonstration sites and update/preparation of relevant technical manuals                                                                            | Number of extension trained                                | # ext staff                 | 100        | 15,000     | 1,500,000      | SAA staff                                          | 10     |
| 2.2.3. Facilitate farmers access to agricultural information through the ODL                                                                                                                                       | Setup of Mobile learning centre (ODL)                      | lumpsum                     | 1          | 1,000,000  | 1,000,000      | Farmer                                             | 1000   |
| 2.2.4. Operating cost of running the ODL                                                                                                                                                                           | Operating costs                                            | # farmers                   | 6          | 300,000    | 1,800,000      | Farmer                                             | 1000   |
| 2.2.5. Research on local vegetables, fruits and root crops and their value chain                                                                                                                                   | Number of new introduced varieties                         | # varieties                 | 10         | 700,000    | 7,000,000      | farmer                                             | 1000   |
| 2.2.6 Development and promotion of OPV for vegetables                                                                                                                                                              | Number of OPV introduced                                   | # OPV                       | 300        | 10,000     | 3,000,000      | farmer                                             | 1000   |
| 2.2.7 Promote bee-keeping                                                                                                                                                                                          | Number of bee keepers                                      | # bee keepers               | 36         | 28,000     | 1,008,000      | public                                             | 91000  |
| 2.2.8. Facilitate crop producers associations to promote value chains                                                                                                                                              | Number of interventions                                    | # associations              | 100        | 20,000     | 2,000,000      | public                                             | 91000  |
| 2.2.9. Develop and promote ex-situ and in-situ biodiversity conservation of genetic resources for food and agriculture                                                                                             | Number of varieties conserved                              | # varieties                 | 20         | 1,000,000  | 20,000,000     | public                                             | 91000  |
| 2.2.10 Setting up of the PGRFA field gene bank at the Barbarons Biodiversity center                                                                                                                                | Setting of the field gene bank                             | lumpsum                     | 1          | 3,500,000  | 3,500,000      | public                                             | 91000  |
| 2.2.11. Construction of two requisite store - Val D'Endore and Anse Boileau                                                                                                                                        | Number of building constructed                             | Lumpsum                     | 2          | 1,000,000  | 2,000,000      | farmers                                            | 1000   |
| 2.2.12 Study the required conditions for setting-up an organic food/production label, including possible certification and labelling framework                                                                     | Number of studies carried out                              | # studies                   | 1          | 300,000    | 300,000        | public                                             | 91000  |
| 2.3. Provision of effective bio-security services                                                                                                                                                                  | INDICATOR                                                  | NATURE                      | Qty TARGET | UNIT COST  | Total BaseCost | Type                                               | Number |
|                                                                                                                                                                                                                    |                                                            |                             |            |            | 72,100,000     |                                                    |        |
| 2.3.1 Carry out research on emerging threats, conduct relevant studies and complete the biosecurity policy                                                                                                         | Number of research conducted                               | # research                  | 6          | 600,000    | 3,600,000      | Farmers                                            | 1000   |
| 2.3.2. Promote improvement of biosecurity policy implementation regarding plant and animal health (interception, incursion and occurrence of pest and disease) by empowering biosecurity officers at border posts. | Number of surveillance and monitoring programme undertaken | # programmes                | 10         | 500,000    | 5,000,000      | public                                             | 91000  |
| 2.3.3. Purchase necessary equipment based on the biosecurity investment plan, linked to the policy                                                                                                                 | Bio-security Equipment purchased                           | lumpsum                     | 1          | 2,000,000  | 2,000,000      | Biosecurity unit                                   | 20     |
| 2.3.4. Control programme of established and newly introduced aricultural pest and diseases                                                                                                                         | Reduction in infestation level                             | # programmes                | 1          | 6,000,000  | 6,000,000      | farmers                                            | 1000   |
| 2.3.5. Emergency preparedness for notifiable/regulated/quarantine pland and animal pest and diseases                                                                                                               | Number of emergency plan developed and implemented         | # plan                      | 12         | 1,000,000  | 12,000,000     | public                                             | 91000  |
| 2.3.6. Carry out an intensive inventory of plant and animal pest and disease in the Seychelles including both production and wild areas for the purpose of risk analysis and trade facilitation                    | Number of inventory undertaken                             | #national pest list develop | 6          | 1,000,000  | 6,000,000      | public                                             | 91000  |
| 2.3.7. Construction of a quarantine unit , fumigation and incinerator                                                                                                                                              | Number of quarantine unit                                  | # unit                      | 3          | 10,000,000 | 30,000,000     | Public                                             | 91000  |
| 2.3.8. Construction of new plant diagnostic laboratory at union val compound including equipements and consumable materials                                                                                        | Number of lab constructed                                  | Lumpsum                     | 1          | 7,500,000  | 7,500,000      | farmers/ traders                                   | 1000   |
| 2.4. Improved access to finance and insurance products                                                                                                                                                             | INDICATOR                                                  | NATURE                      | Qty TARGET | UNIT COST  | Total BaseCost | Type                                               | Number |
|                                                                                                                                                                                                                    |                                                            |                             |            |            | 62,600,000     |                                                    |        |
| 2.4.1. Facilitate arrangements with commercial banks for providing loans to agri-business                                                                                                                          | Number of facilitation meetings                            | # meetings                  | 10         | 100,000    | 1,000,000      | farmer                                             | 630    |
| 2.4.2. Train farmers on financial literacy                                                                                                                                                                         | Number of farmers trained                                  | # farmers trained           | 1000       | 1,000      | 1,000,000      | farmer                                             | 630    |
| 2.4.3. Assess performance of the existing Agriculture Development Fund and agriculture insurance scheme                                                                                                            | Number of assessment of the performance of the ADF         | person-month                | 2          | 300,000    | 600,000        | farmer                                             | 630    |
| 2.4.4. Increase the amount of the ADF and agriculture insurance scheme                                                                                                                                             | Refinancing                                                | Lumpsum                     | 1          | 60,000,000 | 60,000,000     | farmer                                             | 630    |

| 3. Sustainable Fisheries Management and Aquaculture Development                                                                                        |                                                                 | INDICATORS                   |            | 610,025,200 |                | BENEFICIARIES                      |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------|------------|-------------|----------------|------------------------------------|--------|
| 3.1: Artisanal fisheries                                                                                                                               | INDICATOR                                                       | NATURE                       | Qty TARGET | UNIT COST   | Total BaseCost | Type                               | Number |
|                                                                                                                                                        |                                                                 |                              |            |             | 146,360,000    |                                    |        |
| 3.1.1 Carry out stock assessment for priority fisheries (demersal, pelagic, etc) and carry research required (including study of by catch utilisation) | Number of stock assessments carried out                         | # stock assessments          | 6          | 1,500,000   | 9,000,000      | SFA                                | 50     |
| 3.1.2. Finalize management plan for selected fisheries and promote co-management approach                                                              | Formulation of a management plan                                | # management plan            | 4          | 5,500,000   | 22,000,000     | Artisanal fishers                  | 500    |
| 3.1.3. Strengthen Fishers associations and other value chain organizations                                                                             | Number of associations promoted (through workshops, training)   | #associations                | 8          | 120,000     | 960,000        | Fishers associations               | 8      |
| 3.1.4. Facilitate access to improved nets/boats, improved fishing gear                                                                                 | Number of artisanal fisheries fairs organized                   | # fairs                      | 6          | 2,000,000   | 12,000,000     | Artisanal fishers                  | 500    |
| 3.1.5 Training of artisanal fishers                                                                                                                    | Number of fishers trained                                       | #fishers trained             | 500        | 1,000       | 500,000        | Artisanal fishers                  | 500    |
| 3.1.6 Training of SFA technical staff on artisanal fisheries                                                                                           | Number of SFA staff trained                                     | #staff                       | 20         | 45,000      | 900,000        | SFA staff                          | 20     |
| 3.1.7. Fisheries infrastructure development for artisanal sector                                                                                       | Number infrastructure built                                     | #infrastructure              | 20         | 3,000,000   | 60,000,000     | Artisanal Fishers                  | 500    |
| 3.1.8 Applied research to support management plan                                                                                                      | Number of reports, publications presented                       | #research published          | 4          | 2,250,000   | 9,000,000      | Artisanal fishers                  | 500    |
| 3.1.9 Contribution for improved facilities and functioning to fisheries related bodies and organizations                                               | Number of fisheries bodies                                      | Regional / International Fis | 8          | 4,000,000   | 32,000,000     | fisheries association              | 8      |
| 3.2: Semi-industrial fisheries                                                                                                                         | INDICATOR                                                       | NATURE                       | Qty TARGET | UNIT COST   | Total BaseCost | Type                               | Number |
|                                                                                                                                                        |                                                                 |                              |            |             | 57,360,000     |                                    |        |
| 3.2.1 Prepare/finalize management plan for the Semi Industrial vessels. (Fleet Development Program and management)                                     | Management plan prepared                                        | # management plan            | 1          | 1,000,000   | 1,000,000      | Semi-industrial fisheries          | 20     |
| 3.2.2 Carry out research on Chemical Contamination in the food chain                                                                                   | Research carried out on PT's (Chemical Contamination)           | # new practice/technology    | 1          | 600,000     | 600,000        | Semi-industrial fisheries          | 20     |
| 3.2.3 Construct a laboratory to test Chemical Contamination including all equipments                                                                   | Laboratory constructed                                          | #laboratory                  | 1          | 8,000,000   | 8,000,000      | Semi-industrial fisheries          | 20     |
| 3.2.4. Develop and apply sanitary standards, including label and certification schemes                                                                 | Label and certification scheme introduced                       | # certification scheme       | 1          | 1,000,000   | 1,000,000      | Semi-industrial fisheries          | 20     |
| 3.2.5. Improve regulatory aspects including maritime safety and combatting IUU (illegal, unreported and unregulated) fisheries                         | Number of regulatory instruments prepared                       | # instruments                | 6          | 6,000,000   | 36,000,000     | Semi-industrial fisheries          | 20     |
| 3.2.6 Train SFA staff on IUU regulations                                                                                                               | Number of staff trained                                         | #staff                       | 10         | 36,000      | 360,000        | SFA                                | 10     |
| 3.2.7 Train semi-industrial fishers on maritime safety                                                                                                 | Number of semi-industrial fishers and their staff               | #fishers and employees       | 150        | 1,000       | 150,000        | Semi-industrial fisheries          | 150    |
| 3.2.8 Improve quality and hygiene of fish products                                                                                                     | Number of fishers and fish vendors trained                      | #fishers and vendors         | 750        | 1,000       | 750,000        | Artisanal and semi-industrial fish | 750    |
| 3.2.9 Applied research to support the Semi - Industrial Fishery                                                                                        | Number of research carried out                                  | # research                   | 3          | 500,000     | 1,500,000      | Semi-industrial fisheries          | 20     |
| 3.2.10 Participation in international and regional forums                                                                                              | Number of forums                                                | # forum                      | 200        | 40,000      | 8,000,000      | staff                              | 50     |
| 3.3 Industrial Fisheries                                                                                                                               | INDICATOR                                                       | NATURE                       | Qty TARGET | UNIT COST   | Total BaseCost | Type                               | Number |
|                                                                                                                                                        |                                                                 |                              |            |             | 38,880,000     |                                    |        |
| 3.3.1 Support preparation/ Finalisation of management plan (IOTC)                                                                                      | Formulation of a management plan                                | # management plan            | 1          | 1,500,000   | 1,500,000      | Industrial fisheries               | n.a.   |
| 3.3.2. Strengthen Monitoring Control and Surveillance (MCS) efforts related to Industrial Fisheries                                                    | MCS strengthened                                                | lump sum                     | 3          | 5,000,000   | 15,000,000     | Industrial fisheries               | n.a.   |
| 3.3.3 Train SFA staff on MCS technology/equipment                                                                                                      | SFA staff trained                                               | # staff                      | 30         | 6,000       | 180,000        | SFA staff                          | 30     |
| 3.3.4 Maintain Port Victoria as the Major Tuna landing / transshipment port in the Western Indian Ocean                                                | Infrastructure set up                                           | # infrastructure             | 6          | 3,200,000   | 19,200,000     | Industrial fisheries               | n.a.   |
| 3.3.5 Observer programme                                                                                                                               | Number of observer deployed                                     | # scientific observer        | 1          | 3,000,000   | 3,000,000      | Industrial fisheries               | n.a.   |
| 3.4: Develop marketing and value chain of fish products and improve access to sustainable finance                                                      | INDICATOR                                                       | NATURE                       | Qty TARGET | UNIT COST   | Total BaseCost | Type                               | Number |
|                                                                                                                                                        |                                                                 |                              |            |             | 144,420,000    |                                    |        |
| 3.4.1. Coordination of value chain actors, training                                                                                                    | Number of value chain actors trained                            | # VC actors                  | 50         | 6,000       | 300,000        | fisheries                          | 500    |
| 3.4.2. Value chain, supply agreements                                                                                                                  | Number of agreements                                            | # agreements                 | 60         | 12,000      | 720,000        | fisheries                          | 500    |
| 3.4.3. Marketing infrastructure (driers, markets, cold chain, hatchery)                                                                                | Number constructed                                              | # driers/markets             | 5          | 1,000,000   | 5,000,000      | fisheries                          | 457    |
| 3.4.4 Fish processing and increased value addition of fish products landed in Seychelles                                                               | Number if fisheries infrastructure set up                       | Infrastructure               | 6          | 18,000,000  | 108,000,000    | fishers                            | 750    |
| 3.4.5 Asses and expand Fisheries Development Fund if found to be succesful                                                                             | Assessment of the performance of the Fisheries Development Fund | Lumpsum                      | 1          | 30,000,000  | 30,000,000     | fishers                            | 750    |
| 3.4.6.Facilitate access to finance for fishers                                                                                                         | Number of fishers trained financial literacy                    | # fishers                    | 40         | 10,000      | 400,000        | fisheries                          | 457    |
| 3.5. Development of Mariculture commodities and value chains                                                                                           | INDICATOR                                                       | NATURE                       | Qty TARGET | UNIT COST   | Total BaseCost | Type                               | Number |
|                                                                                                                                                        |                                                                 |                              |            |             | 146,200,000    |                                    |        |
| 3.5.1. Human resource and capacity building of SFA Aquaculture Scientists and Technicians (Establish aquaculture department)                           | Number of staff trained                                         | # staff                      | 10         | 1,600,000   | 16,000,000     | sfa                                | 130    |
| 3.5.2. Promote mariculture investment opportunities, to attract private investment                                                                     | Number of mariculture investment fairs                          | # fairs                      | 6          | 2,000,000   | 12,000,000     | Fish farmers                       | 40     |
| 3.5.3. Provide adequate marketing, processing and storage infrastructure dedicated to aquaculture products                                             | Number of infrastructure constructed                            | lumpsum                      | 3          | 6,000,000   | 18,000,000     | Fish farmers                       | 40     |
| 3.5.4. Enforce biosecurity and Environment Impact Assessment aspects                                                                                   | Number of SFA, Customs and Coast guard trained                  | # staff                      | 50         | 30,000      | 1,500,000      | SFA staff                          | 600    |
| 3.5.5 Construction of two Research and Development aquaculture hatcheries (inner island and outer island)                                              | Number of infrastructure constructed                            | # infrastructure             | 2          | 30,000,000  | 60,000,000     | sfa staff and industry             | 170    |
| 3.5.6. Carry out full EIA on Aquaculture Development Zones                                                                                             | EIA sites covered                                               | # sites                      | 30         | 50,000      | 1,500,000      | Public                             | 91000  |
| 3.5.7. Development of Mariculture Master Plan (5 Phases)                                                                                               | Number of Plans                                                 | # plans                      | 5          | 240,000     | 1,200,000      | Fish farmers and processors        | 2000   |
| 3.5.8. Implementation of Mariculture Master Plan (5 Phases)                                                                                            | Number of Plans implemented                                     | # component implemented      | 5          | 6,000,000   | 30,000,000     | Public                             | 91000  |
| 3.5.9. Initiate small-scale aquaculture project to develop farming technology for inner and outer islands                                              | Number of project initiated                                     | # projects initiated         | 2          | 3,000,000   | 6,000,000      | sfa staff and industry             | 170    |
| 3.6. Post harvest and Seafood value addition                                                                                                           | INDICATOR                                                       | NATURE                       | Qty TARGET | UNIT COST   | Total BaseCost | Type                               | Number |
|                                                                                                                                                        |                                                                 |                              |            |             | 76,805,200     |                                    |        |
| 3.6.1. Upgrade laboratory facilities and services                                                                                                      | Number of laboratories                                          | # labs                       | 4          | 2,500,000   | 10,000,000     | Fish processing sector             | 15     |
| 3.6.2. Product research and development                                                                                                                | Number products developed                                       | # products                   | 20         | 350,000     | 7,000,000      | Fish processing sector             | 15     |
| 3.6.3. Surveys (SWOT of post harvesting sector and consumer surveys on national and international level)                                               | Number of surveys                                               | # surveys                    | 12         | 250,000     | 3,000,000      | Fish processing sector             | 15     |
| 3.6.4. Consultancy in products development and new technology                                                                                          | Number of studies carried out                                   | person-month                 | 6          | 350,000     | 2,100,000      | Fish processing sector             | 15     |
| 3.6.5. Attend international meetings and forums                                                                                                        | Number of reports                                               | # reports                    | 12         | 350,000     | 4,200,000      | SFA staff                          | 5      |
| 3.6.6. Seafood promotion and marketing                                                                                                                 | Number of communications                                        | # communication              | 15         | 350,000     | 5,250,000      | Fish processing sector             | 15     |
| 3.6.7. Surveys and research to collect relevant data to asses quality standards of fish on local market                                                | Number of research projects                                     | # research projects          | 4          | 1,250,000   | 5,000,000      | Fisherman                          | 400    |
| 3.6.8. Developing good handling and processing guideline handbooks                                                                                     | Number of handbooks                                             | # handbooks                  | 600        | 4,167       | 2,500,200      | Fisherman and fish monger          | 450    |
| 3.6.9. Workshops and training to sensitize fisherman and stakeholders on quality improvement                                                           | Number of workshop                                              | #workshop                    | 40         | 75,000      | 3,000,000      | Fisherman and fish monger          | 450    |
| 3.6.10. Pilot project to develop a collecting center for fish in villages                                                                              | Number of pilot project developed                               | # pilot project              | 4          | 2,500,000   | 10,000,000     | Fisherman                          | 40     |
| 3.6.11. Carry out a study to improve quality and standards of fish catch                                                                               | Number of studies carried out                                   | # studies                    | 4          | 500,000     | 2,000,000      | Fisherman                          | 40     |
| 3.6.12. Design, construct and run a fish centre                                                                                                        | Construction of fish centre                                     | Lumpsum                      | 2          | 10,000,000  | 20,000,000     | Fisherman and fish monger          | 450    |
| 3.6.13 Post harvest and seafood processing capacities enhanced                                                                                         | Number of personnel trained                                     | staff and fisheries          | 100        | 27,550      | 2,755,000      | staff and personnel                | 100    |

|                                                                                                                                                                                                                                                |                                                             |                       |                   |                  |                       |                               |               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------|-------------------|------------------|-----------------------|-------------------------------|---------------|
| <b>4. Food Security and Nutrition</b>                                                                                                                                                                                                          |                                                             | <b>INDICATORS</b>     |                   |                  | <b>11,400,000</b>     | <b>BENEFICIARIES</b>          |               |
| 4.1: Set-up a national contingency plan to improve resilience of food system to external shocks                                                                                                                                                | <b>INDICATOR</b>                                            | <b>NATURE</b>         | <b>Qty TARGET</b> | <b>UNIT COST</b> | <b>Total BaseCost</b> | <b>Type</b>                   | <b>Number</b> |
|                                                                                                                                                                                                                                                |                                                             |                       |                   |                  | <b>1,800,000</b>      |                               |               |
| 4.1.1 : Study and analyse pro and cons of different types of food reserve (financial, physical)                                                                                                                                                | Number of study carried out                                 | person-months         | 3                 | 300,000          | 900,000               | Public                        | 91,000        |
| 4.1.2 : Prepare and get approved a policy of food reserve/contingency plan                                                                                                                                                                     | A policy for food reserve prepared and approved             | person-months         | 3                 | 300,000          | 900,000               | Public                        | 91000         |
| 4.2: Improve nutrition practices at Hh level                                                                                                                                                                                                   | <b>INDICATOR</b>                                            | <b>NATURE</b>         | <b>Qty TARGET</b> | <b>UNIT COST</b> | <b>Total BaseCost</b> | <b>Type</b>                   | <b>Number</b> |
|                                                                                                                                                                                                                                                |                                                             |                       |                   |                  | <b>3,600,000</b>      |                               |               |
| 4.2.1. Develop communication plan on dangers of poor diet (in association with Health)                                                                                                                                                         | Number of people sensitized                                 | # people              | 120000            | 2                | 240,000               | public                        | 91000         |
| 4.2.2. Promote school garden and cooking lessons in schools (in association with Education)                                                                                                                                                    | Number of school garden set up                              | # gardens             | 25                | 36,000           | 900,000               | School children               | 17290         |
| 4.2.3 Support school garden operating costs                                                                                                                                                                                                    | Number SG operational                                       | # gardens             | 25                | 12,000           | 300,000               | School children               | 17290         |
| 4.2.4 : Revise horticulture technical school curriculum to include nutrition and use of food                                                                                                                                                   | Nutrition and use of food included in the school curriculum | # curricula           | 1                 | 500,000          | 500,000               | School children               | 17290         |
| 4.2.5. Train backyard and commercial farmers on nutrition and food preparation and use                                                                                                                                                         | Number of farmers trained                                   | # farmers             | 1000              | 1,000            | 1,000,000             | farmers                       | 1000          |
| 4.2.6. Train extension workers on the importance of good diet, food preparation and use of fresh products (veg and fruits)                                                                                                                     | Number of extension trained                                 | # SAA extension staff | 10                | 6,000            | 60,000                | Extension                     | 10            |
| 4.2.7. Prepare or update manuals on food conservation techniques, post-harvest of locally grown crops, nutrition and food use aspects                                                                                                          | Number of manuals updated                                   | person-months         | 2                 | 300,000          | 600,000               | public                        | 91000         |
| 4.3. Strengthen food security and nutrition monitoring (annual survey, VAC)                                                                                                                                                                    | <b>INDICATOR</b>                                            | <b>NATURE</b>         | <b>Qty TARGET</b> | <b>UNIT COST</b> | <b>Total BaseCost</b> | <b>Type</b>                   | <b>Number</b> |
|                                                                                                                                                                                                                                                |                                                             |                       |                   |                  | <b>6,000,000</b>      |                               |               |
| 4.3.1. Conduct yearly food security monitoring                                                                                                                                                                                                 | Number of food security survey carried out                  | # survey              | 6                 | 500,000          | 3,000,000             | public                        | 91,000        |
| 4.3.2. Participate in nutrition assessment and monitoring efforts, in collaboration with other agencies and ministries                                                                                                                         | Number os assesment done                                    | # assessment          | 6                 | 100,000          | 600,000               | public                        | 91,000        |
| 4.3.2. Participate in nutrition assessment and monitoring efforts, in collaboration with other agencies and ministries                                                                                                                         | Number of surveys carried out                               | # surveys             | 12                | 200,000          | 2,400,000             | Public                        | 91,000        |
| <b>5. Human and Institutional Capacity Development, including knowledge, information support, M&amp;E and coordination</b>                                                                                                                     |                                                             | <b>INDICATORS</b>     |                   |                  | <b>138,764,000</b>    | <b>BENEFICIARIES</b>          |               |
| 5.1 : Support to agriculture sector knowledge management                                                                                                                                                                                       | <b>INDICATOR</b>                                            | <b>NATURE</b>         | <b>Qty TARGET</b> | <b>UNIT COST</b> | <b>Total BaseCost</b> | <b>Type</b>                   | <b>Number</b> |
|                                                                                                                                                                                                                                                |                                                             |                       |                   |                  | <b>71,000,000</b>     |                               |               |
| 5.1.1. Rehabilitate the Horticulture training centre                                                                                                                                                                                           | Training centre rehabilitated                               | # building            | 1                 | 6,000,000        | 6,000,000             | Students                      | 300           |
| 5.1.2. Establish an Innovation Fund to strengthen the national agricultural and fisheries research system                                                                                                                                      | NARS strengthened                                           | lumpsum               | 6                 | 10,000,000       | 60,000,000            | SAA and SFA staff             | 20            |
| 5.1.3. Develop Information Communication Technology for Agricultural sector                                                                                                                                                                    | ICT developed                                               | lumpsum               | 1                 | 5,000,000        | 5,000,000             | Ministry of Natural Resources |               |
| 5.2: Support agriculture sector institutions' capacities                                                                                                                                                                                       | <b>INDICATOR</b>                                            | <b>NATURE</b>         | <b>Qty TARGET</b> | <b>UNIT COST</b> | <b>Total Cost</b>     | <b>Type</b>                   | <b>Number</b> |
|                                                                                                                                                                                                                                                |                                                             |                       |                   |                  | <b>1,620,000</b>      |                               |               |
| 5.2.1. Reinforce the capacity of the farmers' organizations (Fishers associations, Seyfa, chamber of agriculture)                                                                                                                              | Stakeholders groups trained                                 | # groups              | 25                | 36,000           | 900,000               | Stakeholders                  | 20            |
| 5.2.2 Support a platform for agriculture and fisheries sector stakeholders                                                                                                                                                                     | Platform set-up and operational                             | # platform            | 6                 | 120,000          | 720,000               | Stakeholders                  | 20            |
| 5.3. Support the policy, governance and regulatory framework                                                                                                                                                                                   | <b>INDICATOR</b>                                            | <b>NATURE</b>         | <b>Qty TARGET</b> | <b>UNIT COST</b> | <b>Total Cost</b>     | <b>Type</b>                   | <b>Number</b> |
|                                                                                                                                                                                                                                                |                                                             |                       |                   |                  | <b>62,800,000</b>     |                               |               |
| 5.3.1. Carry out a study to re-organize and strengthen the structure and relationship between MNR, SAA and SFA, including decision on how to best support farmers                                                                              | Number of studies carried out                               | person-month          | 4                 | 300,000          | 1,200,000             | MNR staff                     | 100           |
| 5.3.2 Prepare a resources mobilization strategy                                                                                                                                                                                                | Number of studies carried out                               | person-month          | 2                 | 300,000          | 600,000               | MNR staff                     | 100           |
| 5.3.2. Support national data collection and statistics system                                                                                                                                                                                  | Number of data based reports prepared by MNR                | lumpsum               | 6                 | 500,000          | 3,000,000             | MNR staff                     | 100           |
| 5.3.3. Support policy development, laws and regulations etc.                                                                                                                                                                                   | Number of policies, laws and regulations developed          | lumpsum               | 6                 | 500,000          | 3,000,000             | MNR staff                     | 100           |
| 5.3.4. Construction of the Union Vale building for MNR                                                                                                                                                                                         | Buiding constructed                                         | # building            | 1                 | 45,000,000       | 45,000,000            | SAA and MNR                   |               |
| 5.3.5. Construction of boundary wall and fencing of SAA compound at different locations                                                                                                                                                        | Number of fence                                             | # compound secured    | 6                 | 1,000,000        | 6,000,000             | SAA                           |               |
| 5.3.6. Construction of the Grand Anse building and its infrastructure                                                                                                                                                                          | Number of building constructed (requisite store)            | Lumpsum               | 4                 | 1,000,000        | 4,000,000             | SAA                           |               |
| 5.4. SNAIP Coordination and implementation                                                                                                                                                                                                     | <b>INDICATOR</b>                                            | <b>NATURE</b>         | <b>Qty TARGET</b> | <b>UNIT COST</b> | <b>Total BaseCost</b> | <b>Type</b>                   | <b>Number</b> |
|                                                                                                                                                                                                                                                |                                                             |                       |                   |                  | <b>3,344,000</b>      |                               |               |
| 5.4.1. Strengthen MNR planning and SAA planning department (including with setting-up a dedicated unit if required) to support MIS for budget planning, execution, M&E, including performance of SNAIp and project preparation and negotiation | M&E unit set up                                             | lumpsum               | 1                 | 2,000,000        | 2,000,000             | MNR staff                     | 100           |
| 5.4.2. Establish SNAIP coordination mechanism, through technical working group                                                                                                                                                                 | A technical working group set-up                            | meeting               | 12                | 12,000           | 144,000               | MNR staff                     | 100           |
| 5.4.3. Ensure information about SNAIP is widely disseminated to general public and all stakeholders (pamphlets, banners, leaflet, TV advert, radio information campaign)                                                                       | Number of people sensitized                                 | # people              | 120000            | 10               | 1,200,000             | public                        | 91000         |

## Annex 2b: Detailed costs

| SNAIP            | Seychelles Agriculture National Investment Plan                                                                                                                                                                         | Cost 2015 - 2020       | 2015                  | 2016                  | 2017                  | 2018                  | 2019                  | 2020                  |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Programme</b> | <b>1. Protection and Sustainable use of Agricultural Land and Water</b>                                                                                                                                                 | <b>SCR 122,201,597</b> | <b>SCR 17,927,676</b> | <b>SCR 35,942,440</b> | <b>SCR 19,596,067</b> | <b>SCR 26,357,857</b> | <b>SCR 11,023,428</b> | <b>SCR 11,354,130</b> |
| Sub - progra     | 1.1. Protect agricultural land resources                                                                                                                                                                                | SCR 9,958,912          | SCR 2,600,000         | SCR 2,369,000         | SCR 1,883,098         | SCR 1,393,227         | SCR 844,132           | SCR 869,456           |
| Component        | 1.1.1 : Establish a legally binding national land use plan, specifying areas dedicated for agriculture use                                                                                                              | SCR 253,750            | SCR 125,000           | SCR 128,750           | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component        | 1.1.2. Establish and operationalize a legally binding framework of allocating and retracting land                                                                                                                       | SCR 300,000            | SCR 300,000           | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component        | 1.1.3 Mobilize and sensitize MP, public on the importance of agriculture land and the responsibility of all to use it efficiently                                                                                       | SCR 1,293,682          | SCR 200,000           | SCR 206,000           | SCR 212,180           | SCR 218,545           | SCR 225,102           | SCR 231,855           |
| Component        | 1.1.4. Continue to demarcate land for agricultural use                                                                                                                                                                  | SCR 5,326,018          | SCR 1,000,000         | SCR 1,030,000         | SCR 1,060,900         | SCR 1,092,727         | SCR 562,754           | SCR 579,637           |
| Component        | 1.1.5. Train SAA and MLUH staff in land administration and GIS technique                                                                                                                                                | SCR 812,000            | SCR 400,000           | SCR 412,000           | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component        | 1.1.6. Procurement of GIS equipment                                                                                                                                                                                     | SCR 1,545,450          | SCR 500,000           | SCR 515,000           | SCR 530,450           | SCR 0                 | SCR 0                 | SCR 0                 |
| Component        | 1.1.7. Review current leases with a view of increasing use of agriculture land, and ensuring registered farmers pay the land tax/levy                                                                                   | SCR 428,011            | SCR 75,000            | SCR 77,250            | SCR 79,568            | SCR 81,955            | SCR 56,275            | SCR 57,964            |
| Sub - progra     | 1.2. Reduce degradation of agricultural land through effective land and water management                                                                                                                                | SCR 37,524,656         | SCR 2,620,000         | SCR 18,231,000        | SCR 2,991,738         | SCR 9,637,852         | SCR 1,992,151         | SCR 2,051,915         |
| Component        | 1.2.1. Develop and promote SWC techniques (incl contour ridges, pit basin, terraces) for commercial and non commercial farmers and potential farmers                                                                    | SCR 2,166,828          | SCR 260,000           | SCR 309,000           | SCR 381,924           | SCR 393,382           | SCR 405,183           | SCR 417,339           |
| Component        | 1.2.2. Develop and promote SLM techniques and practices (including conservation agriculture, soil cover, mulching, composting, manure)                                                                                  | SCR 2,166,828          | SCR 260,000           | SCR 309,000           | SCR 381,924           | SCR 393,382           | SCR 405,183           | SCR 417,339           |
| Component        | 1.2.3. Train trainers in the above techniques and set-up trial and demonstration plots                                                                                                                                  | SCR 3,728,213          | SCR 700,000           | SCR 721,000           | SCR 742,630           | SCR 764,909           | SCR 393,928           | SCR 405,746           |
| Component        | 1.2.4 Sustainability of the national IAEA projects on soil and soil salinity using the laboratory as an education facility for national and international students while on further studies                             | SCR 2,130,407          | SCR 400,000           | SCR 412,000           | SCR 424,360           | SCR 437,091           | SCR 225,102           | SCR 231,855           |
| Component        | 1.2.5. Modern mechanization of the Anse Boileau Research centre                                                                                                                                                         | SCR 5,326,018          | SCR 1,000,000         | SCR 1,030,000         | SCR 1,060,900         | SCR 1,092,727         | SCR 562,754           | SCR 579,637           |
| Component        | 1.2.6. Construction of the Anse Boileau Research Facility and its infrastructure                                                                                                                                        | SCR 15,450,000         | SCR 0                 | SCR 15,450,000        | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component        | 1.2.7. Construction of the tissue culture lab and its equipments                                                                                                                                                        | SCR 6,556,362          | SCR 0                 | SCR 0                 | SCR 0                 | SCR 6,556,362         | SCR 0                 | SCR 0                 |
| Sub- progra      | 1.3. Increase water use efficiency and irrigation of agricultural land                                                                                                                                                  | SCR 39,290,680         | SCR 6,862,000         | SCR 7,945,420         | SCR 8,183,783         | SCR 8,046,842         | SCR 4,065,338         | SCR 4,187,298         |
| Component        | 1.3.1. Construct and rehabilitate irrigation distribution network (pipes, sprinkler, pressurized drop, drop) for registered farmers                                                                                     | SCR 3,667,538          | SCR 0                 | SCR 1,186,560         | SCR 1,222,157         | SCR 1,258,822         | SCR 0                 | SCR 0                 |
| Component        | 1.3.2. Construct and rehabilitate barrages and reservoirs that will provide water for agriculture use                                                                                                                   | SCR 21,304,074         | SCR 4,000,000         | SCR 4,120,000         | SCR 4,243,600         | SCR 4,370,908         | SCR 2,251,018         | SCR 2,318,548         |
| Component        | 1.3.3. Promote, establish and strengthen water users associations linked to small-scale irrigation schemes                                                                                                              | SCR 465,726            | SCR 72,000            | SCR 74,160            | SCR 76,385            | SCR 78,676            | SCR 81,037            | SCR 83,468            |
| Component        | 1.3.4. Strengthen the irrigation unit to manage irrigation water use for agricultural production including the installation of water metering devices for each farmers and at the outlet of the barrages and reservoirs | SCR 5,609,702          | SCR 1,050,000         | SCR 1,081,500         | SCR 1,113,945         | SCR 764,909           | SCR 787,856           | SCR 811,492           |
| Component        | 1.3.5. Construction of new and rehabilitation existing agricultural drainage system on Mahe, Praslin and La Digue                                                                                                       | SCR 6,391,222          | SCR 1,200,000         | SCR 1,236,000         | SCR 1,273,080         | SCR 1,311,272         | SCR 675,305           | SCR 695,564           |
| Component        | 1.3.6 Revision of the regulatory framework for water, and study possibility of setting-up a Water Resources Board, where MNR/SAA/SFA could participate in water use discussions and allocations between sectors         | SCR 300,000            | SCR 300,000           | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component        | 1.3.7 Promote platform to discuss water allocation/use between various sectors                                                                                                                                          | SCR 1,552,418          | SCR 240,000           | SCR 247,200           | SCR 254,616           | SCR 262,254           | SCR 270,122           | SCR 278,226           |
| Sub- progra      | 1.4. Improve land use efficiency through the promotion of food tree crops, agro-forestry and agrotourism                                                                                                                | SCR 13,250,749         | SCR 2,472,600         | SCR 3,855,290         | SCR 2,889,467         | SCR 3,522,515         | SCR 251,664           | SCR 259,214           |
| Component        | 1.4.1. Identify forestry areas where agroforestry could also be promoted, based on studies and pilot schemes                                                                                                            | SCR 4,060,000          | SCR 2,000,000         | SCR 2,060,000         | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component        | 1.4.2. Promote food trees such as breadfruit tree, jack tree in both forestry areas and backyard farms                                                                                                                  | SCR 21,668             | SCR 2,600             | SCR 3,090             | SCR 3,819             | SCR 3,934             | SCR 4,052             | SCR 4,173             |
| Component        | 1.4.3. Rehabilitate and/or construct access roads to help reach remote areas that have either Agriculture or Forestry potential                                                                                         | SCR 6,671,568          | SCR 0                 | SCR 1,287,500         | SCR 2,652,250         | SCR 2,731,818         | SCR 0                 | SCR 0                 |
| Component        | 1.4.4. Promote fruit trees on backyard farms through improved access to seedlings and extension advice                                                                                                                  | SCR 1,083,414          | SCR 130,000           | SCR 154,500           | SCR 190,962           | SCR 196,691           | SCR 202,592           | SCR 208,669           |
| Component        | 1.4.5 Sensitize public regarding the value of consuming and growing local fruits and food trees                                                                                                                         | SCR 258,736            | SCR 40,000            | SCR 41,200            | SCR 42,436            | SCR 43,709            | SCR 45,020            | SCR 46,371            |
| Component        | 1.4.6. Carry out a study of agro-tourism potential on backyard farming, to assess potential for increased vegetable and fruit production for tourism market                                                             | SCR 609,000            | SCR 300,000           | SCR 309,000           | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component        | 1.4.7. Carry out a feasibility study on providing pre project preparation for newly allocated plots                                                                                                                     | SCR 546,364            | SCR 0                 | SCR 0                 | SCR 0                 | SCR 546,364           | SCR 0                 | SCR 0                 |
| Sub- progra      | Salaries                                                                                                                                                                                                                | SCR 22,176,600         | SCR 3,373,076         | SCR 3,541,730         | SCR 3,647,982         | SCR 3,757,421         | SCR 3,870,144         | SCR 3,986,248         |

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| <b>Programme</b> | <b>2. Productivity, Commercialization and Diversification</b>                                                                                                                                                      | <b>SCR 485,094,892</b> | <b>SCR 37,068,618</b> | <b>SCR 97,672,022</b> | <b>SCR 101,309,450</b> | <b>SCR 115,170,373</b> | <b>SCR 48,682,615</b> | <b>SCR 85,191,813</b> |
| Sub- program     | 2.1 : Development of livestock commodities and value chains (wool and mohair, poultry, pigs, dairy cattle)                                                                                                         | SCR 183,940,705        | SCR 4,250,000         | SCR 48,475,233        | SCR 36,834,448         | SCR 39,582,214         | SCR 13,269,749        | SCR 41,529,061        |
| Component        | 2.1.1 Carry out selected livestock product value chain studies                                                                                                                                                     | SCR 3,654,000          | SCR 1,800,000         | SCR 1,854,000         | SCR 0                  | SCR 0                  | SCR 0                 | SCR 0                 |
| Component        | 2.1.2. Promote and develop good animal husbandry practices including use of biotechnologies.                                                                                                                       | SCR 2,267,793          | SCR 0                 | SCR 618,000           | SCR 636,540            | SCR 327,818            | SCR 337,653           | SCR 347,782           |
| Component        | 2.1.3 Strengthen extension and veterinary staff capacity in animal production                                                                                                                                      | SCR 3,195,611          | SCR 600,000           | SCR 618,000           | SCR 636,540            | SCR 655,636            | SCR 337,653           | SCR 347,782           |
| Component        | 2.1.4. Introduce a livestock identification and traceability system (LITS)                                                                                                                                         | SCR 1,458,715          | SCR 0                 | SCR 0                 | SCR 381,924            | SCR 393,382            | SCR 405,183           | SCR 278,226           |
| Component        | 2.1.5: Improve the present livestock gene pool                                                                                                                                                                     | SCR 4,407,504          | SCR 200,000           | SCR 412,000           | SCR 636,540            | SCR 874,182            | SCR 1,125,509         | SCR 1,159,274         |
| Component        | 2.1.6 Introduce a poultry parent stock farm                                                                                                                                                                        | SCR 31,827,000         | SCR 0                 | SCR 0                 | SCR 31,827,000         | SCR 0                  | SCR 0                 | SCR 0                 |
| Component        | 2.1.7. Upgrading of the pig genetic centre                                                                                                                                                                         | SCR 774,457            | SCR 0                 | SCR 0                 | SCR 774,457            | SCR 0                  | SCR 0                 | SCR 0                 |
| Component        | 2.1.8. Feasibility study for the establishment of a new and modern livestock improvement centre                                                                                                                    | SCR 515,000            | SCR 0                 | SCR 515,000           | SCR 0                  | SCR 0                  | SCR 0                 | SCR 0                 |
| Component        | 2.1.9. Facilitating the actors of the livestock value chain                                                                                                                                                        | SCR 3,234,205          | SCR 500,000           | SCR 515,000           | SCR 530,450            | SCR 546,364            | SCR 562,754           | SCR 579,637           |
| Component        | 2.1.10. Promote on farm use of alternative energy through pilot projects                                                                                                                                           | SCR 3,090,900          | SCR 1,000,000         | SCR 1,090,000         | SCR 1,060,900          | SCR 0                  | SCR 0                 | SCR 0                 |
| Component        | 2.1.11. Construction of the veterinary laboratory                                                                                                                                                                  | SCR 8,240,000          | SCR 0                 | SCR 8,240,000         | SCR 0                  | SCR 0                  | SCR 0                 | SCR 0                 |
| Component        | 2.1.12. Construction of a new national abattoir/processing facilities                                                                                                                                              | SCR 109,400,035        | SCR 0                 | SCR 34,333,333        | SCR 0                  | SCR 36,424,233         | SCR 0                 | SCR 38,642,469        |
| Component        | 2.1.13. Support to private veterinary practices                                                                                                                                                                    | SCR 970,261            | SCR 150,000           | SCR 154,500           | SCR 159,135            | SCR 163,909            | SCR 168,826           | SCR 173,891           |
| Component        | 2.1.14 Review and update existing policies, laws and regulations pertaining to Animal Production and Health including certification of food quality according to HACCP standards                                   | SCR 775,644            | SCR 0                 | SCR 185,400           | SCR 190,962            | SCR 196,691            | SCR 202,592           | SCR 0                 |
| Component        | 2.1.15 Renovate and upgrade the Ex-BBC building for Livestock department offices                                                                                                                                   | SCR 10,129,579         | SCR 0                 | SCR 0                 | SCR 0                  | SCR 0                  | SCR 10,129,579        | SCR 0                 |
| Sub- program     | 2.2: Development of crop & horticultural commodities and value chains (maize, sorghum, potatoes etc.)                                                                                                              | SCR 52,621,053         | SCR 11,148,000        | SCR 8,207,040         | SCR 7,583,313          | SCR 7,810,813          | SCR 10,802,634        | SCR 7,069,253         |
| Component        | 2.2.1 Provide extension support to farmers at (sub) district level and training them on GAP                                                                                                                        | SCR 6,500,483          | SCR 780,000           | SCR 927,000           | SCR 1,145,772          | SCR 1,180,145          | SCR 1,215,550         | SCR 1,252,016         |
| Component        | 2.2.2. Train extension workers on GAP, and set-up on-farm/plot demonstration sites and update/preparation of relevant technical manuals                                                                            | SCR 1,597,806          | SCR 300,000           | SCR 309,000           | SCR 318,270            | SCR 327,818            | SCR 168,826           | SCR 173,891           |
| Component        | 2.2.3. Facilitate farmers access to agricultural information through the ODL                                                                                                                                       | SCR 1,000,000          | SCR 1,000,000         | SCR 0                 | SCR 0                  | SCR 0                  | SCR 0                 | SCR 0                 |
| Component        | 2.2.4. Operating cost of running the ODL                                                                                                                                                                           | SCR 1,940,523          | SCR 300,000           | SCR 309,000           | SCR 318,270            | SCR 327,818            | SCR 337,653           | SCR 347,782           |
| Component        | 2.2.5. Research on local vegetables, fruits and root crops and their value chain                                                                                                                                   | SCR 7,456,426          | SCR 1,400,000         | SCR 1,442,000         | SCR 1,485,260          | SCR 1,529,818          | SCR 787,856           | SCR 811,492           |
| Component        | 2.2.6 Development and promotion of OPV for vegetables                                                                                                                                                              | SCR 3,234,205          | SCR 500,000           | SCR 515,000           | SCR 530,450            | SCR 546,364            | SCR 562,754           | SCR 579,637           |
| Component        | 2.2.7 Promote bee-keeping                                                                                                                                                                                          | SCR 1,086,693          | SCR 168,000           | SCR 173,040           | SCR 178,231            | SCR 183,758            | SCR 189,085           | SCR 194,758           |
| Component        | 2.2.8. Facilitate crop producers associations to promote value chains                                                                                                                                              | SCR 2,130,407          | SCR 400,000           | SCR 412,000           | SCR 424,360            | SCR 437,091            | SCR 225,102           | SCR 231,855           |
| Component        | 2.2.9. Develop and promote ex-situ and in-situ biodiversity conservation of genetic resources for food and agriculture                                                                                             | SCR 21,435,230         | SCR 4,000,000         | SCR 4,120,000         | SCR 3,182,700          | SCR 3,278,181          | SCR 3,376,526         | SCR 3,477,822         |
| Component        | 2.2.10 Setting up of the PGRFA field gene bank at the Barbarons Biodiversity center                                                                                                                                | SCR 3,939,281          | SCR 0                 | SCR 0                 | SCR 0                  | SCR 0                  | SCR 3,939,281         | SCR 0                 |
| Component        | 2.2.11. Construction of two requisite store - Val D'Endore and Anse Boileau                                                                                                                                        | SCR 2,000,000          | SCR 2,000,000         | SCR 0                 | SCR 0                  | SCR 0                  | SCR 0                 | SCR 0                 |
| Component        | 2.2.12 Study the required conditions for setting-up an organic food/production label, including possible certification and labelling framework                                                                     | SCR 300,000            | SCR 300,000           | SCR 0                 | SCR 0                  | SCR 0                  | SCR 0                 | SCR 0                 |
| Sub- program     | 2.3. Provision of effective bio-security services                                                                                                                                                                  | SCR 77,772,392         | SCR 5,620,000         | SCR 23,813,600        | SCR 7,659,698          | SCR 17,068,396         | SCR 5,920,176         | SCR 17,690,522        |
| Component        | 2.3.1 Carry out research on emerging threats, conduct relevant studies and complete the biosecurity policy                                                                                                         | SCR 3,881,046          | SCR 600,000           | SCR 618,000           | SCR 636,540            | SCR 655,636            | SCR 675,305           | SCR 695,564           |
| Component        | 2.3.2. Promote improvement of biosecurity policy implementation regarding plant and animal health (interception, incursion and occurrence of pest and disease) by empowering biosecurity officers at border posts. | SCR 5,326,018          | SCR 1,000,000         | SCR 1,030,000         | SCR 1,060,900          | SCR 1,092,727          | SCR 562,754           | SCR 579,637           |
| Component        | 2.3.3. Purchase necessary equipment based on the biosecurity investment plan, linked to the policy                                                                                                                 | SCR 2,154,397          | SCR 0                 | SCR 0                 | SCR 1,697,440          | SCR 0                  | SCR 225,102           | SCR 231,855           |
| Component        | 2.3.4. Control programme of established and newly introduced agricultural pest and diseases                                                                                                                        | SCR 6,460,691          | SCR 1,020,000         | SCR 1,050,600         | SCR 1,082,118          | SCR 1,114,582          | SCR 1,080,488         | SCR 1,112,903         |
| Component        | 2.3.5. Emergency preparedness for notifiable/regulated/quarantine plant and animal pest and diseases                                                                                                               | SCR 12,936,820         | SCR 2,000,000         | SCR 2,060,000         | SCR 2,121,800          | SCR 2,185,454          | SCR 2,251,018         | SCR 2,318,548         |
| Component        | 2.3.6. Carry out an intensive inventory of plant and animal pest and disease in the Seychelles including both production and wild areas for the purpose of risk analysis and trade facilitation                    | SCR 6,468,410          | SCR 1,000,000         | SCR 1,030,000         | SCR 1,060,900          | SCR 1,092,727          | SCR 1,125,509         | SCR 1,159,274         |
| Component        | 2.3.7. Construction of a quarantine unit , fumigation and incinerator                                                                                                                                              | SCR 32,820,011         | SCR 0                 | SCR 10,300,000        | SCR 0                  | SCR 10,927,270         | SCR 0                 | SCR 11,592,741        |
| Component        | 2.3.8. Construction of new plant diagnostic laboratory at union val compound including equipments and consumable materials                                                                                         | SCR 7,725,000          | SCR 0                 | SCR 7,725,000         | SCR 0                  | SCR 0                  | SCR 0                 | SCR 0                 |
| Sub- program     | 2.4. Improved access to finance and insurance products                                                                                                                                                             | SCR 67,404,080         | SCR 330,000           | SCR 669,500           | SCR 32,230,142         | SCR 33,197,046         | SCR 652,795           | SCR 324,597           |
| Component        | 2.4.1. Facilitate arrangements with commercial banks for providing loans to agri-business                                                                                                                          | SCR 1,065,204          | SCR 200,000           | SCR 206,000           | SCR 212,180            | SCR 218,545            | SCR 112,551           | SCR 115,927           |
| Component        | 2.4.2. Train farmers on financial literacy                                                                                                                                                                         | SCR 1,083,414          | SCR 130,000           | SCR 154,500           | SCR 190,962            | SCR 196,691            | SCR 202,592           | SCR 208,669           |
| Component        | 2.4.3. Assess performance of the existing Agriculture Development Fund and agriculture insurance scheme                                                                                                            | SCR 646,653            | SCR 0                 | SCR 309,000           | SCR 0                  | SCR 0                  | SCR 337,653           | SCR 0                 |
| Component        | 2.4.4. Increase the amount of the ADF and agriculture insurance scheme                                                                                                                                             | SCR 64,608,810         | SCR 0                 | SCR 0                 | SCR 31,827,000         | SCR 32,781,810         | SCR 0                 | SCR 0                 |
| Sub- program     | Salaries                                                                                                                                                                                                           | SCR 103,356,662        | SCR 15,720,618        | SCR 16,506,649        | SCR 17,001,849         | SCR 17,511,904         | SCR 18,037,261        | SCR 18,578,379        |

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| <b>Programme</b> | <b>3. Sustainable Fisheries Management and Aquaculture Development</b>                                                                                 | <b>SCR 789,666,346</b> | <b>SCR 108,869,849</b> | <b>SCR 121,469,118</b> | <b>SCR 176,460,752</b> | <b>SCR 132,024,568</b> | <b>SCR 152,320,940</b> | <b>SCR 98,521,119</b> |
| Sub-program      | 3.1: Artisanal fisheries                                                                                                                               | SCR 155,844,297        | SCR 31,750,000         | SCR 33,001,200         | SCR 26,140,576         | SCR 26,979,430         | SCR 18,705,956         | SCR 19,267,135        |
| Component        | 3.1.1 Carry out stock assessment for priority fisheries (demersal, pelagic, etc) and carry research required (including study of by catch utilisation) | SCR 9,702,615          | SCR 1,500,000          | SCR 1,545,000          | SCR 1,591,350          | SCR 1,639,091          | SCR 1,688,263          | SCR 1,738,911         |
| Component        | 3.1.2. Finalize management plan for selected fisheries and promote co-management approach                                                              | SCR 23,009,949         | SCR 5,500,000          | SCR 5,665,000          | SCR 5,834,950          | SCR 6,009,999          | SCR 0                  | SCR 0                 |
| Component        | 3.1.3. Strengthen Fishers associations and other value chain organizations                                                                             | SCR 1,038,244          | SCR 0                  | SCR 247,200            | SCR 254,616            | SCR 262,254            | SCR 135,061            | SCR 139,113           |
| Component        | 3.1.4. Facilitate access to improved nets/boats, improved fishing gear                                                                                 | SCR 12,936,820         | SCR 2,000,000          | SCR 2,060,000          | SCR 2,121,800          | SCR 2,185,454          | SCR 2,251,018          | SCR 2,318,548         |
| Component        | 3.1.5 Training of artisanal fishers                                                                                                                    | SCR 530,680            | SCR 50,000             | SCR 103,000            | SCR 159,135            | SCR 218,545            | SCR 0                  | SCR 0                 |
| Component        | 3.1.6 Training of SFA technical staff on artisanal fisheries                                                                                           | SCR 913,500            | SCR 450,000            | SCR 463,500            | SCR 0                  | SCR 0                  | SCR 0                  | SCR 0                 |
| Component        | 3.1.7. Fisheries infrastructure development for artisanal sector                                                                                       | SCR 64,305,689         | SCR 12,000,000         | SCR 12,360,000         | SCR 9,548,100          | SCR 9,834,543          | SCR 10,129,579         | SCR 10,433,467        |
| Component        | 3.1.8 Applied research to support management plan                                                                                                      | SCR 9,413,161          | SCR 2,250,000          | SCR 2,317,500          | SCR 2,387,025          | SCR 2,458,636          | SCR 0                  | SCR 0                 |
| Component        | 3.1.9 Contribution for improved facilities and functioning to fisheries related bodies and organizations                                               | SCR 33,993,640         | SCR 8,000,000          | SCR 8,240,000          | SCR 4,243,600          | SCR 4,370,908          | SCR 4,502,035          | SCR 4,637,096         |
| Sub-program      | 3.2: Semi-industrial fisheries                                                                                                                         | SCR 60,933,344         | SCR 18,047,000         | SCR 8,957,910          | SCR 8,643,152          | SCR 8,410,720          | SCR 8,341,146          | SCR 8,533,416         |
| Component        | 3.2.1 Prepare/finalize management plan for the Semi Industrial vessels. (Fleet Development Program and management)                                     | SCR 1,000,000          | SCR 1,000,000          | SCR 0                  | SCR 0                  | SCR 0                  | SCR 0                  | SCR 0                 |
| Component        | 3.2.2 Carry out research on Chemical Contamination in the food chain                                                                                   | SCR 618,000            | SCR 0                  | SCR 618,000            | SCR 0                  | SCR 0                  | SCR 0                  | SCR 0                 |
| Component        | 3.2.3 Construct a laboratory to test Chemical Contamination including all equipments                                                                   | SCR 8,000,000          | SCR 8,000,000          | SCR 0                  | SCR 0                  | SCR 0                  | SCR 0                  | SCR 0                 |
| Component        | 3.2.4. Develop and apply sanitary standards, including label and certification schemes                                                                 | SCR 1,000,000          | SCR 1,000,000          | SCR 0                  | SCR 0                  | SCR 0                  | SCR 0                  | SCR 0                 |
| Component        | 3.2.5. Improve regulatory aspects including maritime safety and combatting IUU (illegal, unreported and unregulated) fisheries                         | SCR 38,810,459         | SCR 6,000,000          | SCR 6,180,000          | SCR 6,365,400          | SCR 6,556,362          | SCR 6,753,053          | SCR 6,955,644         |
| Component        | 3.2.6 Train SFA staff on IUU regulations                                                                                                               | SCR 383,473            | SCR 72,000             | SCR 74,160             | SCR 76,385             | SCR 78,676             | SCR 40,518             | SCR 41,734            |
| Component        | 3.2.7 Train semi-industrial fishers on maritime safety                                                                                                 | SCR 161,710            | SCR 25,000             | SCR 25,750             | SCR 26,523             | SCR 27,318             | SCR 28,138             | SCR 28,982            |
| Component        | 3.2.8 Improve quality and hygiene of fish products                                                                                                     | SCR 815,434            | SCR 50,000             | SCR 103,000            | SCR 159,135            | SCR 218,545            | SCR 168,826            | SCR 115,927           |
| Component        | 3.2.9 Applied research to support the Semi - Industrial Fishery                                                                                        | SCR 1,545,450          | SCR 500,000            | SCR 515,000            | SCR 530,450            | SCR 0                  | SCR 0                  | SCR 0                 |
| Component        | 3.2.10 Participation in international and regional forums                                                                                              | SCR 1,400,000          | SCR 1,400,000          | SCR 1,442,000          | SCR 1,485,260          | SCR 1,529,818          | SCR 1,350,611          | SCR 1,391,129         |
| Sub-program      | 3.3 Industrial Fisheries                                                                                                                               | SCR 41,347,501         | SCR 6,260,000          | SCR 10,052,800         | SCR 8,763,034          | SCR 8,960,361          | SCR 3,601,628          | SCR 3,709,677         |
| Component        | 3.3.1 Support preparation/ Finalisation of management plan (IOTC)                                                                                      | SCR 1,545,000          | SCR 0                  | SCR 1,545,000          | SCR 0                  | SCR 0                  | SCR 0                  | SCR 0                 |
| Component        | 3.3.2. Strengthen Monitoring Control and Surveillance (MCS) efforts related to Industrial Fisheries                                                    | SCR 15,918,135         | SCR 0                  | SCR 5,150,000          | SCR 5,304,500          | SCR 5,463,635          | SCR 0                  | SCR 0                 |
| Component        | 3.3.3 Train SFA staff on MCS technology/equipment                                                                                                      | SCR 185,454            | SCR 60,000             | SCR 61,800             | SCR 63,654             | SCR 0                  | SCR 0                  | SCR 0                 |
| Component        | 3.3.4 Maintain Port Victoria as the Major Tuna landing / transshipment port in the Western Indian Ocean                                                | SCR 20,698,912         | SCR 3,200,000          | SCR 3,296,000          | SCR 3,394,880          | SCR 3,496,726          | SCR 3,601,628          | SCR 3,709,677         |
| Component        | 3.3.5 Observer programme                                                                                                                               | SCR 3,000,000          | SCR 3,000,000          | SCR 0                  | SCR 0                  | SCR 0                  | SCR 0                  | SCR 0                 |
| Sub-program      | 3.4: Develop marketing and value chain of fish products and improve access to sustainable finance                                                      | SCR 155,719,965        | SCR 18,280,000         | SCR 19,858,400         | SCR 36,367,652         | SCR 37,404,045         | SCR 21,609,769         | SCR 22,200,099        |
| Component        | 3.4.1. Coordination of value chain actors, training                                                                                                    | SCR 319,561            | SCR 60,000             | SCR 61,800             | SCR 63,654             | SCR 65,564             | SCR 33,765             | SCR 34,778            |
| Component        | 3.4.2. Value chain, supply agreements                                                                                                                  | SCR 776,209            | SCR 120,000            | SCR 123,600            | SCR 127,308            | SCR 131,127            | SCR 135,061            | SCR 139,113           |
| Component        | 3.4.3. Marketing infrastructure (driers, markets, cold chain, hatchery)                                                                                | SCR 5,468,410          | SCR 0                  | SCR 1,030,000          | SCR 1,060,900          | SCR 1,092,727          | SCR 1,125,509          | SCR 1,159,274         |
| Component        | 3.4.4 Fish processing and increased value addition of fish products landed in Seychelles                                                               | SCR 116,431,378        | SCR 18,000,000         | SCR 18,540,000         | SCR 19,096,200         | SCR 19,669,086         | SCR 20,259,159         | SCR 20,866,933        |
| Component        | 3.4.5 Assess and expand Fisheries Development Fund if found to be successful                                                                           | SCR 32,304,405         | SCR 0                  | SCR 0                  | SCR 15,913,500         | SCR 16,390,905         | SCR 0                  | SCR 0                 |
| Component        | 3.4.6 Facilitate access to finance for fishers                                                                                                         | SCR 420,002            | SCR 100,000            | SCR 103,000            | SCR 106,090            | SCR 54,636             | SCR 56,275             | SCR 0                 |
| Sub-program      | 3.5. Development of Mariculture commodities and value chains                                                                                           | SCR 158,396,763        | SCR 11,750,000         | SCR 15,439,700         | SCR 50,912,591         | SCR 16,379,978         | SCR 52,043,527         | SCR 11,870,967        |
| Component        | 3.5.1. Human resource and capacity building of SFA Aquaculture Scientists and Technicians (Establish aquaculture department)                           | SCR 17,043,259         | SCR 3,200,000          | SCR 3,296,000          | SCR 3,394,880          | SCR 3,496,726          | SCR 1,800,814          | SCR 1,854,839         |
| Component        | 3.5.2. Promote mariculture investment opportunities, to attract private investment                                                                     | SCR 12,936,820         | SCR 2,000,000          | SCR 2,060,000          | SCR 2,121,800          | SCR 2,185,454          | SCR 2,251,018          | SCR 2,318,548         |
| Component        | 3.5.3. Provide adequate marketing, processing and storage infrastructure dedicated to aquaculture products                                             | SCR 19,118,453         | SCR 6,000,000          | SCR 0                  | SCR 6,365,400          | SCR 0                  | SCR 6,753,053          | SCR 0                 |
| Component        | 3.5.4. Enforce biosecurity and Environment Impact Assessment aspects                                                                                   | SCR 1,597,806          | SCR 300,000            | SCR 309,000            | SCR 318,270            | SCR 327,818            | SCR 168,826            | SCR 173,891           |
| Component        | 3.5.5 Construction of two Research and Development aquaculture hatcheries (inner island and outer island)                                              | SCR 65,592,264         | SCR 0                  | SCR 0                  | SCR 31,827,000         | SCR 0                  | SCR 33,765,264         | SCR 0                 |
| Component        | 3.5.6. Carry out full EIA on Aquaculture Development Zones                                                                                             | SCR 1,617,102          | SCR 250,000            | SCR 257,500            | SCR 265,225            | SCR 273,182            | SCR 281,377            | SCR 289,819           |
| Component        | 3.5.7. Development of Mariculture Master Plan (5 Phases)                                                                                               | SCR 1,312,418          | SCR 0                  | SCR 247,200            | SCR 254,616            | SCR 262,254            | SCR 270,122            | SCR 278,226           |
| Component        | 3.5.8. Implementation of Mariculture Master Plan (5 Phases)                                                                                            | SCR 32,810,459         | SCR 0                  | SCR 6,180,000          | SCR 6,365,400          | SCR 6,556,362          | SCR 6,753,053          | SCR 6,955,644         |
| Component        | 3.5.9. Initiate small-scale aquaculture project to develop farming technology for inner and outer islands                                              | SCR 6,368,181          | SCR 0                  | SCR 3,090,000          | SCR 0                  | SCR 3,278,181          | SCR 0                  | SCR 0                 |
| Sub-program      | 3.6. Post harvest and Seafood value addition                                                                                                           | SCR 80,234,179         | SCR 4,516,700          | SCR 11,759,201         | SCR 22,561,842         | SCR 10,125,973         | SCR 23,541,930         | SCR 7,728,532         |
| Component        | 3.6.1. Upgrade laboratory facilities and services                                                                                                      | SCR 10,939,207         | SCR 0                  | SCR 2,575,000          | SCR 2,652,250          | SCR 0                  | SCR 2,813,772          | SCR 2,898,185         |
| Component        | 3.6.2. Product research and development                                                                                                                | SCR 7,456,426          | SCR 1,400,000          | SCR 1,442,000          | SCR 1,485,260          | SCR 1,529,818          | SCR 787,856            | SCR 811,492           |
| Component        | 3.6.3. Surveys (SWOT of post harvesting sector and consumer surveys on national and international level)                                               | SCR 3,234,205          | SCR 500,000            | SCR 515,000            | SCR 530,450            | SCR 546,364            | SCR 562,754            | SCR 579,637           |
| Component        | 3.6.4. Consultancy in products development and new technology                                                                                          | SCR 2,263,943          | SCR 350,000            | SCR 360,500            | SCR 371,315            | SCR 382,454            | SCR 393,928            | SCR 405,746           |
| Component        | 3.6.5. Attend international meetings and forums                                                                                                        | SCR 4,527,887          | SCR 700,000            | SCR 721,000            | SCR 742,630            | SCR 764,909            | SCR 787,856            | SCR 811,492           |
| Component        | 3.6.6. Seafood promotion and marketing                                                                                                                 | SCR 5,710,015          | SCR 700,000            | SCR 721,000            | SCR 742,630            | SCR 1,147,363          | SCR 1,181,784          | SCR 1,217,238         |
| Component        | 3.6.7. Surveys and research to collect relevant data to assess quality standards of fish on local market                                               | SCR 5,386,420          | SCR 0                  | SCR 1,287,500          | SCR 1,326,125          | SCR 1,365,909          | SCR 1,406,886          | SCR 0                 |
| Component        | 3.6.8. Developing good handling and processing guideline handbooks                                                                                     | SCR 2,695,386          | SCR 416,700            | SCR 429,201            | SCR 442,077            | SCR 455,339            | SCR 469,000            | SCR 483,070           |
| Component        | 3.6.9. Workshops and training to sensitize fisherman and stakeholders on quality improvement                                                           | SCR 3,229,193          | SCR 450,000            | SCR 618,000            | SCR 477,405            | SCR 655,636            | SCR 506,479            | SCR 521,673           |
| Component        | 3.6.10. Pilot project to develop a collecting center for fish in villages                                                                              | SCR 10,772,840         | SCR 0                  | SCR 2,575,000          | SCR 2,652,250          | SCR 2,731,818          | SCR 2,813,772          | SCR 0                 |
| Component        | 3.6.11. Carry out a study to improve quality and standards of fish catch                                                                               | SCR 2,154,568          | SCR 0                  | SCR 515,000            | SCR 530,450            | SCR 546,364            | SCR 562,754            | SCR 0                 |
| Component        | 3.6.12. Design, construct and run a fish centre                                                                                                        | SCR 21,864,088         | SCR 0                  | SCR 0                  | SCR 10,609,000         | SCR 0                  | SCR 11,255,088         | SCR 0                 |
| Component        | 3.6.13 Post harvest and seafood processing capacities enhanced                                                                                         | SCR 3,013,094          | SCR 0                  | SCR 567,530            | SCR 584,556            | SCR 602,093            | SCR 620,155            | SCR 638,760           |

|                                                                                                                                                                                                                                                          |                        |                       |                       |                       |                       |                       |                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Programme 4. Food Security and Nutrition</b>                                                                                                                                                                                                          | <b>SCR 16,954,401</b>  | <b>SCR 3,298,882</b>  | <b>SCR 3,175,486</b>  | <b>SCR 2,612,993</b>  | <b>SCR 2,418,201</b>  | <b>SCR 2,850,910</b>  | <b>SCR 2,597,929</b>  |
| Sub-program 4.1: Set-up a national contingency plan to improve resilience of food system to external shocks                                                                                                                                              | SCR 1,827,000          | SCR 900,000           | SCR 927,000           | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component 4.1.1: Study and analyse pro and cons of different types of food reserve (financial, physical)                                                                                                                                                 | SCR 900,000            | SCR 900,000           | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component 4.1.2: Prepare and get approved a policy of food reserve/contingency plan                                                                                                                                                                      | SCR 927,000            | SCR 0                 | SCR 927,000           | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Sub-program 4.2: Improve nutrition practices at Hh level                                                                                                                                                                                                 | SCR 3,880,037          | SCR 672,000           | SCR 455,260           | SCR 765,970           | SCR 515,767           | SCR 891,403           | SCR 579,637           |
| Component 4.2.1: Develop communication plan on dangers of poor diet (in association with Health)                                                                                                                                                         | SCR 258,736            | SCR 40,000            | SCR 41,200            | SCR 42,436            | SCR 43,709            | SCR 45,020            | SCR 46,371            |
| Component 4.2.2: Promote school garden and cooking lessons in schools (in association with Education)                                                                                                                                                    | SCR 984,314            | SCR 0                 | SCR 185,400           | SCR 190,962           | SCR 196,691           | SCR 202,592           | SCR 208,669           |
| Component 4.2.3 Support school garden operating costs                                                                                                                                                                                                    | SCR 328,105            | SCR 0                 | SCR 61,800            | SCR 63,654            | SCR 65,564            | SCR 67,531            | SCR 69,556            |
| Component 4.2.4: Revise horticulture technical school curriculum to include nutrition and use of food                                                                                                                                                    | SCR 500,000            | SCR 500,000           | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component 4.2.5: Train backyard and commercial farmers on nutrition and food preparation and use                                                                                                                                                         | SCR 1,089,250          | SCR 120,000           | SCR 154,500           | SCR 137,917           | SCR 196,691           | SCR 225,102           | SCR 255,040           |
| Component 4.2.6: Train extension workers on the importance of good diet, food preparation and use of fresh products (veg and fruits)                                                                                                                     | SCR 63,710             | SCR 12,000            | SCR 12,360            | SCR 12,731            | SCR 13,113            | SCR 13,506            | SCR 0                 |
| Component 4.2.7: Prepare or update manuals on food conservation techniques, post-harvest of locally grown crops, nutrition and food use aspects                                                                                                          | SCR 655,923            | SCR 0                 | SCR 0                 | SCR 318,270           | SCR 0                 | SCR 337,653           | SCR 0                 |
| Sub-program 4.3: Strengthen food security and nutrition monitoring (annual survey, VAC)                                                                                                                                                                  | SCR 6,468,410          | SCR 1,000,000         | SCR 1,030,000         | SCR 1,060,900         | SCR 1,092,727         | SCR 1,125,509         | SCR 1,159,274         |
| Component 4.3.1: Conduct yearly food security monitoring                                                                                                                                                                                                 | SCR 3,234,205          | SCR 500,000           | SCR 515,000           | SCR 530,450           | SCR 546,364           | SCR 562,754           | SCR 579,637           |
| Component 4.3.2: Participate in nutrition assessment and monitoring efforts, in collaboration with other agencies and ministries                                                                                                                         | SCR 646,841            | SCR 100,000           | SCR 103,000           | SCR 106,090           | SCR 109,273           | SCR 112,551           | SCR 115,927           |
| Component 4.3.3: Monitor population diet and nutrition through regular surveys in collaboration with Min Health                                                                                                                                          | SCR 2,587,364          | SCR 400,000           | SCR 412,000           | SCR 424,360           | SCR 437,091           | SCR 450,204           | SCR 463,710           |
| Sub-program Salaries                                                                                                                                                                                                                                     | SCR 4,778,954          | SCR 726,882           | SCR 763,226           | SCR 786,123           | SCR 809,707           | SCR 833,998           | SCR 859,018           |
| <b>Programme 5. Human and Institutional Capacity Development, including knowledge, information support, M&amp;E and coor</b>                                                                                                                             | <b>SCR 168,171,678</b> | <b>SCR 30,026,885</b> | <b>SCR 15,926,749</b> | <b>SCR 17,656,414</b> | <b>SCR 67,358,821</b> | <b>SCR 18,326,506</b> | <b>SCR 18,876,302</b> |
| Sub-program 5.1: Support to agriculture sector knowledge management                                                                                                                                                                                      | SCR 75,684,099         | SCR 21,000,000        | SCR 10,300,000        | SCR 10,609,000        | SCR 10,927,270        | SCR 11,255,088        | SCR 11,592,741        |
| Component 5.1.1: Rehabilitate the Horticulture training centre                                                                                                                                                                                           | SCR 6,000,000          | SCR 6,000,000         | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component 5.1.2: Establish an Innovation Fund to strengthen the national agricultural and fisheries research system                                                                                                                                      | SCR 64,684,099         | SCR 10,000,000        | SCR 10,300,000        | SCR 10,609,000        | SCR 10,927,270        | SCR 11,255,088        | SCR 11,592,741        |
| Component 5.1.3: Develop Information Communication Technology for Agricultural sector                                                                                                                                                                    | SCR 5,000,000          | SCR 5,000,000         | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Sub-program 5.2: Support agriculture sector institutions' capacities                                                                                                                                                                                     | SCR 1,736,915          | SCR 120,000           | SCR 309,000           | SCR 509,232           | SCR 524,509           | SCR 135,061           | SCR 139,113           |
| Component 5.2.1: Reinforce the capacity of the farmers's organizations (Fishers associations, Sevfa, chamber of agriculture)                                                                                                                             | SCR 960,706            | SCR 0                 | SCR 185,400           | SCR 381,924           | SCR 393,382           | SCR 0                 | SCR 0                 |
| Component 5.2.2 Support a platform for agriculture and fisheries sector stakeholders                                                                                                                                                                     | SCR 776,209            | SCR 120,000           | SCR 123,600           | SCR 127,308           | SCR 131,127           | SCR 135,061           | SCR 139,113           |
| Sub-program 5.3: Support the policy, governance and regulatory framework                                                                                                                                                                                 | SCR 68,347,945         | SCR 3,800,000         | SCR 2,060,000         | SCR 3,182,700         | SCR 52,450,896        | SCR 3,376,526         | SCR 3,477,822         |
| Component 5.3.1: Carry out a study to re-organize and strengthen the structure and relationship between MNR, SAA and SFA, including decision on how to best support farmers                                                                              | SCR 1,200,000          | SCR 1,200,000         | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component 5.3.2 Prepare a resources mobilization strategy                                                                                                                                                                                                | SCR 600,000            | SCR 600,000           | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component 5.3.2: Support national data collection and statistics system                                                                                                                                                                                  | SCR 3,234,205          | SCR 500,000           | SCR 515,000           | SCR 530,450           | SCR 546,364           | SCR 562,754           | SCR 579,637           |
| Component 5.3.3: Support policy development, laws and regulations etc.                                                                                                                                                                                   | SCR 3,234,205          | SCR 500,000           | SCR 515,000           | SCR 530,450           | SCR 546,364           | SCR 562,754           | SCR 579,637           |
| Component 5.3.4: Construction of the Union Vale building for MNR                                                                                                                                                                                         | SCR 49,172,715         | SCR 0                 | SCR 0                 | SCR 0                 | SCR 49,172,715        | SCR 0                 | SCR 0                 |
| Component 5.3.5: Construction of boundary wall and fencing of SAA compound at different locations                                                                                                                                                        | SCR 6,468,410          | SCR 1,000,000         | SCR 1,030,000         | SCR 1,060,900         | SCR 1,092,727         | SCR 1,125,509         | SCR 1,159,274         |
| Component 5.3.6: Construction of the Grand Anse building and its infrastructure                                                                                                                                                                          | SCR 4,438,410          | SCR 0                 | SCR 0                 | SCR 1,060,900         | SCR 1,092,727         | SCR 1,125,509         | SCR 1,159,274         |
| Sub-program 5.4: SNAIP Coordination and implementation                                                                                                                                                                                                   | SCR 3,448,924          | SCR 2,224,000         | SCR 230,720           | SCR 237,642           | SCR 244,771           | SCR 252,114           | SCR 259,677           |
| Component 5.4.1: Strengthen MNR planning and SAA planning department (including with setting-up a dedicated unit if required) to support MIS for budget planning, execution, M&E, including performance of SNAIP and project preparation and negotiation | SCR 2,000,000          | SCR 2,000,000         | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 | SCR 0                 |
| Component 5.4.2: Establish SNAIP coordination mechanism, through technical working group                                                                                                                                                                 | SCR 155,242            | SCR 24,000            | SCR 24,720            | SCR 25,462            | SCR 26,225            | SCR 27,012            | SCR 27,823            |
| Component 5.4.3: Ensure information about SNAIP is widely disseminated to general public and all stakeholders (pamphlets, banners, leaflet, TV advert, radio information campaign)                                                                       | SCR 1,293,682          | SCR 200,000           | SCR 206,000           | SCR 212,180           | SCR 218,545           | SCR 225,102           | SCR 231,855           |
| Sub-program Salaries                                                                                                                                                                                                                                     | SCR 18,953,796         | SCR 2,882,885         | SCR 3,027,029         | SCR 3,117,840         | SCR 3,211,376         | SCR 3,307,717         | SCR 3,406,948         |

## Annex 3 Implementation Plan Outline

The implementation plan will be concerned with detailed schedules of activities, expected outputs, outcomes, impacts, costs, etc. of what it will take to realize the SNAIP's vision, goal and objectives.<sup>4</sup> The SNAIP's implementation plan is better formulated by the key stakeholders who will be actively involved with the programme. The following outline (albeit not exhaustive) is proposed for an implementation plan that would deal with practical issues towards the full realization of the SNAIP's vision, goal and objectives.

1. Introduction
  - 1.1 A Summary of major components of the SNAIP
  - 1.2 Key result areas (outputs, outcomes and impacts)
  - 1.3 Major strategies employed for the realization of each key result area
2. Identification of key stakeholders and activities
  - 2.1 Identification of key activities by result area
  - 2.2 Sequencing of the key activities by result area
  - 2.3 Identification of detailed activities by result area
  - 2.4 Sequencing of detailed activities by result area
3. Details and scheduling of resources
  - 3.1 Financial resources
    - 3.1.1 Expected disbursements – amount by source and activity
    - 3.1.2 Frequency
    - 3.1.3 Responsible institution/department/office
  - 3.2 Human resources
    - 3.2.1 Expected actual numbers by type and by activity (including short-term and long term consultants: who/what type? When should they be available? What procurement procedures should be used? who should be involved? Whom should they be reporting to? How long should they be engaged? What should be their Terms of Reference (ToRs)?, etc.
    - 3.2.2 What are the expected tasks for each individual to be involved in the SNAIP's implementation? What should be their expected qualifications/experience? Any special skills expected?
    - 3.2.3 Cost (what is the cost of the procurement/engagement process? What will be the total cost/package of each individual, i.e. all inclusive)
    - 3.2.4 Availability period
  - 3.3 Equipment
    - 3.3.1 Type (make) by each activity
    - 3.3.2 Quantity by each activity
    - 3.3.3 Period of availability (procurement details in terms of when, where, how, who is responsible? etc)
    - 3.3.4 Issue of service/availability and procurement of spare parts and their estimated costs/existence of agents?
    - 3.3.5 Replacement?
4. Management and coordination
  - 4.1 Frequency of various meetings
  - 4.2 Expected numbers
  - 4.3 Expected venue
  - 4.4 Expected key outputs of the meetings
  - 4.5 In terms of M&E
    - 4.5.1 What nature/type?
    - 4.5.2 Who should be involved?

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<sup>4</sup> Indian Council of Agricultural Research, Project Implementation Unit – NAIP, New Dehli, 2006.

- 4.5.3 When?
- 4.5.4 How?
- 4.5.5 When should data collection be undertaken?
- 4.5.6 Who should be involved in data collection?
- 4.5.7 Where should it be collected?
- 4.5.8 From whom should it be collected?
- 4.5.9 Who should be involved in data analysis? When? How?
- 4.5.10 Who should be involved in report writing? When?
- 4.5.11 Who should be involved in dissemination of results? How? When?  
What fora should be used? What system should be in place for tracking uptake of recommendations? Who should track the uptake of recommendation and when? Who should be the key audiences? What kind of reports should be targeted to each audience?

## Annex 4 List of partners and on-going projects

| Development Partner    | Program Title                                                                                                     | Partner Institution/ Implementation Agency | Total Budget | Total Budget in SCR ('000) | Total Budget in million USD | Start Date | End date   | 2015       | 2016   | 2017   | 2018   | 2019   | 2020 | TOTAL 2015-2020 |
|------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------|----------------------------|-----------------------------|------------|------------|------------|--------|--------|--------|--------|------|-----------------|
| <b>AfDB ACTIVE</b>     |                                                                                                                   |                                            |              |                            |                             |            |            |            |        |        |        |        |      |                 |
| Currency is Euro       | Seychelles Agriculture Sector Development Study                                                                   | MNR                                        | € 823,702    | 14,003                     | 1.11                        | Feb-13     | Jun-15     | USD 6,820  |        |        |        |        |      | 6,820           |
|                        |                                                                                                                   |                                            | 1,111,997.57 |                            |                             |            |            |            |        |        |        |        |      |                 |
| <b>AfDB PIPELINE</b>   |                                                                                                                   |                                            |              |                            |                             |            |            |            |        |        |        |        |      |                 |
| Currency US\$          | Future investment                                                                                                 | MNR                                        | -            | -                          | -                           | Jan-16     | Jun-20     |            | -      | -      | -      | -      | -    | -               |
| <b>COMESA Active</b>   |                                                                                                                   |                                            |              |                            |                             |            |            |            |        |        |        |        |      |                 |
| Currency US\$          | Implementation of piloting of integrated water resources management to increase resilience of farming communities | MEE                                        | 165,929      | 2,058                      | 0.166                       | Apr-14     | Sep-15     | SCR 1,240  |        |        |        |        |      | 1,240           |
|                        | Consolidation of the farmers register in Zambia                                                                   | FAO/MAL                                    | 153,000      |                            |                             | 1/1/2010   | 12/31/2010 |            |        |        |        |        |      |                 |
| <b>COMESA Pipeline</b> |                                                                                                                   |                                            |              |                            |                             |            |            |            |        |        |        |        |      |                 |
| Currency US\$          | Comesa Adaptation Fund (trade related, regional integration)                                                      | MNR                                        |              | 1,200                      |                             |            |            | 600        | 600    |        |        |        |      | 1,200           |
| <b>EU ACTIVE</b>       |                                                                                                                   |                                            |              |                            |                             |            |            |            |        |        |        |        |      |                 |
| Currency is Euro       | Seychelles Fisheries Development Policy Program (EU Fisheries Partnership Agreement)                              | SFA                                        | € 12,600,000 | 214,200                    | 17.01                       | Jan-14     | Dec-19     | SCR 43,524 | 41,850 | 41,850 | 41,850 | 41,850 | 0    | 210,924         |
| <b>EU PIPELINE</b>     |                                                                                                                   |                                            |              |                            |                             |            |            |            |        |        |        |        |      |                 |
| Currency is Euro       | Support to Ecosystem Based Adaptation to Climate Change                                                           | SFA/MEE                                    | € 443,333    | 7,537                      | 0.60                        | Aug-14     | Dec-19     | 1,500      | 1,500  | 1,500  | 1,500  | 1,500  | 0    | 7,500           |
| <b>FAO ACTIVE</b>      |                                                                                                                   |                                            |              |                            |                             |            |            |            |        |        |        |        |      |                 |
| Currency is USD        | Support to the Development of appropriate agro-forestry systems in Seychelles                                     | MNR (SAA), MEE (SNPA)                      | \$300,000    | 3,720                      | 0.30                        | Oct-14     | Sep-16     | 1,240      | 1,860  |        |        |        |      | 3,100           |
| Currency is USD        | Assessment of the institutional capacity of the sector MNR and its Agencies                                       | MNR                                        | \$80,000     | 992                        | 0.08                        | Jul-14     | Dec-15     | 496        | 496    |        |        |        |      | 992             |
| Currency is USD        | Capacity building in soil and water management to reduce damage tropical storm                                    | MNR                                        | \$300,000    | 3,720                      | 0.30                        | Oct-14     | Dec-15     | 1,860      | 1,860  |        |        |        |      | 3,720           |
| Currency is USD        | Participative formulation project appropriate agroforestry schemes                                                | MNR (SAA), MEE (SNPA)                      | \$80,000     | 992                        | 0.08                        | Oct-14     | Dec-15     | 496        | 496    |        |        |        |      | 992             |
| Currency is USD        | TA for establishment of Fisheries Intelligence Unit in SFA                                                        | SFA                                        | \$60,000     | 744                        | 0.06                        | Jan-15     | Dec-15     | 0          | 744    |        |        |        |      | 744             |
| <b>FAO PIPELINE</b>    |                                                                                                                   |                                            |              |                            |                             |            |            |            |        |        |        |        |      |                 |
| Currency is USD        | Assessment land use plan for agriculture sector                                                                   | MNR (SAA), MLUH                            | \$60,000     | 744                        | 0.06                        | Jan-16     | Dec-17     | 0          | 0      | 372    | 372    |        |      | 744             |
| Currency is USD        | Technical assistance legal framework for FSN                                                                      | MNR                                        | \$60,000     | 744                        | 0.06                        | Jan-16     | Dec-17     | 0          | 0      | 372    | 372    |        |      | 744             |
| Currency is USD        | TA development policies and guidelines for agrotourism in Seychelles                                              | MNR (SAA), SEYFA                           | \$60,000     | 744                        | 0.06                        | Jan-16     | Dec-17     | 0          | 0      | 372    | 372    |        |      | 744             |
| <b>IAEA</b>            |                                                                                                                   |                                            |              |                            |                             |            |            |            |        |        |        |        |      |                 |
| Currency is USD        | Building Capacity for Diagnostic of Animal Diseases using Nuclear and                                             | MNR (SAA)                                  | € 175,000    | 2,975                      | 0.236                       | Jan-14     | Dec-17     | 740        | 924    | 439    |        |        |      | 2,103           |
| Currency is USD        | Determination N and other nutrients                                                                               | MNR (SAA)                                  | € 175,000    | 2,975                      | 0.236                       | Jan-14     | Dec-17     | 700        | 900    | 413    |        |        |      | 2,013           |
| <b>IAEA Pipeline</b>   |                                                                                                                   |                                            |              |                            |                             |            |            |            |        |        |        |        |      |                 |
| Currency is USD        | Nuclear techniques soil salinity                                                                                  | MNR (SAA)                                  | € 175,000    | 2,975                      | 0.236                       | Jan-14     | Dec-17     | 800        | 1,000  | 930    |        |        |      | 2,730           |
| Currency is USD        | Nuclear techniques fruit fly                                                                                      | MNR (SAA)                                  | € 175,000    | 2,975                      | 0.236                       | Jan-14     | Dec-17     | 800        | 1,000  | 930    |        |        |      | 2,730           |

|                          |                                                                                                                                                                                                                        |           |             |            |       |        |         |        |        |        |        |        |   |         |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|------------|-------|--------|---------|--------|--------|--------|--------|--------|---|---------|
| <b>IFAD ACTIVE</b>       |                                                                                                                                                                                                                        |           |             |            |       |        |         |        |        |        |        |        |   |         |
| Currency is USD          | Competitive local innovations for small-scale agriculture project (CUSSA)                                                                                                                                              | MNR       | \$3,741,000 | 46,388     | 3.74  | Oct-13 | Jun-19  | 9,523  | 11,098 | 13,032 | 6,200  | 843    | 0 | 40,697  |
| <b>IFAD PIPELINE</b>     |                                                                                                                                                                                                                        |           |             |            |       |        |         |        |        |        |        |        |   |         |
| <b>NEPAD/AU</b>          |                                                                                                                                                                                                                        |           |             |            |       |        |         |        |        |        |        |        |   |         |
| Currency is USD          | Addressing key pillars such as regulatory framework and application                                                                                                                                                    | MNR (SFA) | \$168,000   | 2,083      | 0.17  | Oct-13 | Oct-15  | 1,000  |        |        |        |        |   | 1,000   |
| <b>NEPAD/AU Pipeline</b> |                                                                                                                                                                                                                        |           |             |            |       |        |         |        |        |        |        |        |   |         |
| <b>UNDP/GEF</b>          |                                                                                                                                                                                                                        |           |             |            |       |        |         |        |        |        |        |        |   |         |
| Currency is USD          | Ecosystem Based Adaptation to Climate Change in Seychelles (UNDP Adaptation Fund), total budget 5.95 million USD (2015-19), includes a component on watershed component (2.9 million)                                  | MEE       | \$2,900,000 | 35,960     | 2.90  | Jul-14 | Dec-19  | 7,000  | 8,000  | 8,000  | 8,000  | 6,000  |   | 37,000  |
| Currency is USD          | Mainstreaming Biodiversity Management into Production Sector Activities (GEF), total budget of USD 3.6 million, includes a component on marine fisheries (USD 1 million)                                               | SFA       | \$150,000   | 1,860      | 0.15  | Dec-09 | Mar-15  | 1,000  | -      | -      | -      | -      | - | 1,000   |
| Currency is USD          | Mainstreaming Prevention and Control Measures for Invasive Alien Species into Trade, Transport and Travel across the Production Landscape (GEF)                                                                        | MEE       | \$0         | 0          | 0.00  | Dec-09 | Nov-14  | -      | -      | -      | -      | -      | - | 0       |
| <b>UNDP/GEF</b>          |                                                                                                                                                                                                                        |           |             |            |       |        |         |        |        |        |        |        |   |         |
| Currency is USD          | Pipeline financing GEF 6 with a core funding envelope of USD 7.95 million as follows: a) USD 5.1 million biodiversity (of which mostly marine environment and fisheries); and c) USD 0.66 million for land degradation | MNR       | \$4,000,000 | 49,600     | 4.00  | Jul-15 | Dec-19  | 10,000 | 12,000 | 12000  | 12000  | 11000  | 0 | 57,000  |
| Currency is USD          | Non-core financing available to Seychelles includes biosecurity financing (potentially 500k-1mio USD),                                                                                                                 | MNR/SAA   | \$500,000   | 6,200      | 0.50  | Jul-15 | Dec-18  | 3,000  | 3,000  | 3000   | 2500   | 0      | 0 | 11,500  |
| Currency is USD          | Non-core financing available chemical waste (Seychelles has recently submitted a request for assessment of heavy metal residues in fisheries – 500k)                                                                   | MNR/SFA   | \$500,000   | 6,200      | 0.50  | Jul-15 | Dec-18  | 2,000  | 1,500  | 1250   | 1000   | 0      | 0 | 5,750   |
| <b>TOTAL</b>             |                                                                                                                                                                                                                        |           |             | 411,588.72 | 32.79 |        | 000 SCR | 94,339 | 88,828 | 84,460 | 74,166 | 61,193 | 0 | 402,986 |

Annex 5: List of people consulted for elaboration of SNAIP

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|-------------------------|----------------------------------------------------|----------------------------------------------------------------------------|
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| Marco Francis       | Chairman, Seychelles Chamber of Commerce and Industry                                                                                |                                                                      |
| Jimmy Melanie       | Director of Veterinary Services/ SAA                                                                                                 | pvo@email.sc                                                         |
| Jean Risopoulos     | FAO – Investment Support Officer – Sub-Regional Office for Southern Africa                                                           | <a href="mailto:Jean.Risopoulos@fao.org">Jean.Risopoulos@fao.org</a> |
| Terry Mancienne     | Formerly Head of SAA Statistics, FAO National Project Consultant                                                                     | terrymancienne@yahoo.com                                             |
| General group       | Consisting of several other Ministers of Cabinet and their principal Secretaries as well as an array of Farmers from all sub-sectors |                                                                      |



Annex 6: Organizational Chart of the Ministry of Fisheries & Agriculture

