

Ministry of Agro-Industry and Food Security

Strategic Plan 2024-2030

Food Crop and Livestock Sectors



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List of Abbreviations

Abbreviation	Details			
AFAP	African Fertiliser and Agribusiness Partnership			
AfDB	African Development Bank			
AHS	African Horse Sickness			
AI	Artificial Insemination			
АМВ	Agricultural Marketing Board			
APMIS	Agricultural Production and Market Information System			
AU	African Union			
BCA	Biological Control Agents			
CAADP	Comprehensive Africa Agriculture Development Programme			
CAC	Codex Alimentarius Commission			
CATAS	Chinese Academy of Tropical Agricultural Sciences			
CBD	Convention on Biological Diversity			
CIF	Cost, Insurance and Freight			
CIRAD	Centre de Cooperation Internationale en Recherche Agronomique pour le Développement			
CLRS	Curepipe Livestock Research Station			
CRS	Crop Research Station			
CSA	Climate-Smart Agriculture			
CSL	Climate-Smart Livestock			
DBM	Development Bank of Mauritius Ltd			
DVS	Division of Veterinary Services			
EIC	Employment Information Centre			
EBD	Economic Development Board			
EU	European Union			
FAO	Food & Agriculture Organisation of the United Nations			
FAREI	Food and Agricultural Research and Extension Institute			
FTNIR	Fourier Transform Near-Infrared			
FTS	Farmers Training School			
GDP	Gross Domestic Product			
GEd	Genome Edited			
GHG	Greenhouse Gas			
GM	Genetically Modified			
GMO	Genetically Modified Organisms			
НАССР	Hazard Analysis Critical Control Points			
HFRF	Harmonized Fertiliser Regulatory Framework			
IAEA	International Atomic Energy Agency			
ICAR	Indian Council of Agricultural Research			
ICRISAT	International Crops Research Institute for Semi-Arid Tropics			
loT	Internet of Things			
IPDM	Integrated Pest and Disease Management			
IPNS	Integrated Plant Nutrient Systems			

Abbreviation	Details
IPPC	International Plant Protection Convention
ISO	International Standard Organisation
ISPM	International Standards for Phytosanitary Measures
LRS	Livestock Research Station
MAIFS	Ministry of Agro-Industry and Food Security
MauCAS	Mauritius Central Automated Switch
MCA	Mauritius Chamber of Agriculture
MCIA	Mauritius Cane Industry Authority
MLS	Multi-Lateral System
MMA	Mauritius Meat Authority
MOHW	Ministry of Health and Wellness
MOU	Memorandum of Understanding
MPF	Mauritius Police Force
MQA	Mauritius Qualifications Authority
MRIC	Mauritius Research and Innovation council
NAIP	National Agricultural Investment Plan
NAPRO	National Agricultural Products Regulatory Office
NDC	Nationally Determined Contributions
NELS	National E-Licensing System
NEPAD	New Partnership for Africa's Development
NFIDC	Net Food Importing Developing Country
NLIS	National Livestock Information System
NPPO	National Plant Protection Office
NOO	National Organic Office
NWEC	National Women Entrepreneur Council
NWM	National Wholesale Market
PIP	Permission in Principle
PréRAD-OI	Plateforme Régionale en Recherche Agronomique pour le Développement dans l'Océan Indien
PRESAN	Regional Programme for Food Security and Nutrition
QDS	Quality Declared Seed
R&D	Research and Development
SADC	Southern African Development Community
SAPZ	Special Agro-Industrial Processing Zone
SC	Steering Committee
SDG	Sustainable Development Goal
SDIS	SPGRC Document Information System
SFWF	Small Farmers Welfare Fund
SITC	Standard International Trade Classification
SPGRC	SADC Plant Genetic Resources Centre
SPS	Sanitary & Phytosanitary
TCL	Tissue Culture Laboratory
UDM	Université des Mascareignes
UN	United Nations

Abbreviation	Details
UNFCCC	United Nations Framework Convention on Climate Change
UNFSS	United Nations Food Systems Summit
USD	United States Dollars
WHO	World Health Organisation
WOAH	World Organisation for Animal Health
WTO	World Trade Organisation

Foreword



As Minister for Agro-Industry and Food Security, I present the Strategic Plan for the Food Crop and Livestock Sectors 2024-2030 with immense pride and profound responsibility. This document is not merely a blueprint for the future of agriculture in Mauritius; it is a declaration of our unwavering commitment to the principles of sustainability, equity, community and resilience in our journey towards securing a healthier tomorrow for all Mauritian citizens. We are laying the foundation for a more inclusive, resilient and sustainable agricultural future by ensuring their active participation and leadership in the agroindustry.

At a time when the profound challenges of climate change, the unpredictability of global markets and the widespread socioeconomic disparities loom large over our food systems, our Strategic Plan embodies our steadfast commitment to placing innovation, sustainability and inclusivity at the heart of our pursuits. This comprehensive strategy positions us to transform our agricultural landscape into one that not only flourishes but

also does so with responsibility, equity and a steadfast focus on the well-being of all Mauritians. It is crafted to empower the backbone of our agricultural sector - the smallholders, women, and youth - ensuring their active participation in a technologically advanced, environmentally sustainable, and socially equitable agro-industry.

"In the end, our society will be defined not only by what we create but by what we refuse to destroy." These words by John Sawhill, former Chief Executive Officer of The Nature Conservancy, encapsulate the ethos underpinning our strategic endeavours. We are at a pivotal moment where the choices we make in our agricultural practices can either contribute to the preservation of our planet or lead to irreversible damage. Thus, this Strategic Plan is crafted with an acute awareness of our dual role as custodians of the environment and architects of a sustainable food future.

This document depicts a collaborative vision, aligning with the United Nations' Sustainable Development Goals, especially Goal 2, to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

The assertion of the Noble Prize Laureate and the **"Father of the Green Revolution"**, Norman Borlaug, that **"Food is the moral right of all who are born into this world"** is a guiding principle for our Strategic Plan, reminding us of the intrinsic value of food security as a cornerstone of human dignity and social justice.

Our Strategic Plan is a call to unity, inviting all Mauritian agri-food Value Chain stakeholders to join hands in a concerted effort to transform our food systems.

This Plan's key strategies underscore our commitment to innovation and sustainability. We aim to enhance agricultural productivity through the adoption of modern farming techniques such as protected culture, hydroponics, and precision agriculture, ensuring food security in the face of changing climate conditions. By embracing climate-smart agricultural practices, we are dedicated to improving soil health, water conservation and integrated pest management, thereby, reducing our environmental footprint and enhancing the resilience of our agricultural systems.

We are focused on developing the agro-processing sector, fostering entrepreneurship among the youth and women, and creating a supportive ecosystem for the growth of agribusinesses. Through targeted training programmes and the establishment of centres of excellence, we aim to build the capabilities of our farmers, ensuring that they are well-equipped to meet the challenges and opportunities of modern agriculture.

Mahatma Gandhi's reminder, *"To forget how to dig the earth and to tend the soil is to forget ourselves,"* calls us to rekindle our connection with the land. As we navigate the complexities of the 21st century, our Strategic Plan serves as a compass, guiding us towards a future where agriculture plays a pivotal role in achieving sustainability, equity and resilience.

I invite every stakeholder, from the fields to the marketplaces, from research laboratories to policy forums, to join us in this noble endeavour.

Together, we will pave the *"Pathways to a Sustainable Food System for a Healthier Tomorrow"*, ensuring a legacy of well-being and prosperity for Mauritius.

Honourable Mahen Kumar Seeruttun Minister of Agro-Industry and Food Security

Acknowledgements

"Agriculture is our wisest pursuit, because it will in the end contribute most to real wealth, good morals and happiness" - Thomas Jefferson

The Ministry of Agro-Industry and Food Security wishes to thank experts, academia, researchers and stakeholders from the public and private sectors, including farmers, who participated in the two-day symposium organised in collaboration with the Economic Development Board (EDB) in the context of '*Les Assises de L'Agriculture*' along all subsequent meetings held, whose deliberations have been instrumental to write the Strategic Plan 2024-2030. The objective of the discussions was to identify means to enhance food security and increase the contribution of agriculture to economic growth, while addressing contemporary and looming agricultural challenges.

We also thank the United Nations Resident Coordinator Office for Mauritius and Seychelles for their unwavering support in the launching and publication of this document, further to the National Pathway for Green, Fair and Resilient Food System published in the context of Food Systems National Dialogue held in 2021.

We would also like to thank the drafting team comprising officers of the Ministry, the Agricultural Services, the Food and Agricultural Research and Extension Institute (FAREI), the Small Farmers Welfare Fund (SFWF), the Agricultural Marketing Board (AMB) and all those who have contributed in the writing of this Strategic Plan.

Executive Summary

Agriculture has been the backbone to the development of the Mauritian economy. Although no more the largest contributor to national production and wealth, the agricultural sector in Mauritius still constitutes a major economic and social pillar. Mauritius historically has been securing its food supply mostly by an indirect use of its agricultural system, that is, focusing on a monocrop (sugar cane) that offered many advantages: bioclimatic adaptability and economic/marketing/strategic benefits and generating enough foreign currency to more than cover the import of most of our food requirements. However, this sector is being confronted with several threats and challenges on both local and international fronts and clearly a new strategy is needed for our agri-food system. It is in this context that the Strategic Plan 2024-2030 has been formulated.

In line with this Strategy, the mission of the MAIFS would be: "To enable and facilitate the advancement of agriculture and the agribusiness sector for improved food security and safety in line with the requirements for sustainable agriculture development". The vision set is: "To build a vibrant non-sugar agriculture and agribusiness sector that utilises natural resources sustainably, contributes significantly to national food security and safety, empowers producers to higher productivity gains and enhances the welfare of the farming community." The overall goal is to raise the national food security level. With a view to boosting production for resilient food security, the targets of the Ministry would be to increase food crop production by 15% under open field farming and by 100% under protected culture, to improve our level of self-sufficiency to 90% for potatoes and to increase meat production by 50%, by 2030, for which ten multipronged interventions with 100 activities have been devised.

A costed Action Plan has been worked out for the implementation of the various activities for the coming six years and is estimated to the cost of Rs. 5.3 billion. The Plan would be reviewed after a period of three and a half years in view of emerging challenges.

The Food Crop & Livestock Sectors Strategic Plan for the period 2024-2030 has been developed following *"Les Assises de l'Agriculture"* which was organised jointly by the MAIFS and the EDB in March 2023. This forum engaged stakeholders (public and private), experts, academia and researchers in interdisciplinary discussions in the agricultural sector. Subsequently, various meetings have been held to fine-tune the document. The objective of these discussions was to find means to improve food security and to increase the contribution of agriculture to the economy. Participants at all meetings collaborated to identify challenges, opportunities and needs relating to six broad policy objectives, namely:

- i. fostering sustainable and resilient food security in Mauritius;
- ii. developing sustainable value chains in Mauritius;
- iii. facilitating a fair and socially responsible contract farming system in Mauritius;
- iv. technology innovations for food security in Mauritius;
- v. farm diversification; and
- vi. climate change and agriculture in Mauritius- Impact and Adaptation.

The Strategic Plan for the Food Crop & Livestock Sectors 2024-2030 follows earlier planning efforts and has also benefited from the experience gained and lessons learned from recent reports formulated in the non-sugar sector such as the African Development Bank (AfDB) study on the Non-Sugar Sector in the year 2020 and the UN Food System Summit Dialogues held in 2021.

Being aware of threats and emerging challenges, the MAIFS has accordingly addressed these through the formulation of various measures in this Plan for the Republic of Mauritius, including Rodrigues and Agalega. The Plan is structured as follows: the background to the agricultural sector and its performance in recent years including commodity cluster analysis; the strategic orientations of the sector during the plan period; interventions required including activities and projects; institutional arrangements; legislative considerations; the financing requirements; and Monitoring and Evaluation (M&E) arrangements. Three major pillars drive the strategy and the first pillar is boosting production for resilient food security which would require upgrading of production infrastructures, improving access to inputs

(planting materials and feed) and research and development. The second pillar is promoting sustainable and resilient production with interventions geared towards sustainable agricultural practices, integrated pest and disease management, promotion of bio farming and developing smart and innovative production systems. The third pillar is entrepreneurship and agro-processing and value addition with proposed activities in respect of promoting value addition, developing appropriate market structures, capacity building and professionalisation of operators and institutions.

The MAIFS is the administration entrusted with the implementation and financing of this 2024-2030 Strategy. To that effect, a Steering Committee (SC) would be established for the follow-up and supervision of the strategy implementation. This Committee will be chaired by the Permanent Secretary of the MAIFS and include the heads of various Organisations/Departments that form part of the implementing bodies. A Monitoring and Evaluation structure would ensure the proper and timely execution of the provisions of this Plan in order to achieve the expected outcomes within the scheduled timeframe.

1.0 Introduction

The agricultural sector plays an important part of the socio-economic framework of Mauritius. This sector encompasses a wide range of activities with enterprises of various sizes, including small farmers and backyard activities. The COVID-19 pandemic and the conflict between Ukraine and Russia have generated a lot of challenges for the agricultural sector and food security. The situation was further exacerbated with the effect of climate change as witnessed by the frequent flash floods, droughts and cyclonic conditions that prevailed in Mauritius.

Although Mauritius produces most of its fresh vegetables, significant food needs are imported, especially rice, wheat flour and cereals which are not cultivated locally due to lack of space or crops that are not adapted to the local climate. Therefore, given the indispensable need for food supply stability, the agricultural sector needs to undergo major transformation to ensure domestic food availability and to reduce imports. More nutritious foods will need to be produced using less resources, bringing greater benefits to farmers and agripreneurs. Achieving this transformation will require new approaches and extensive coordination among stakeholders in the agricultural system. To meet the challenge of sustainable agriculture, the sector must simultaneously deliver food security, environmental sustainability and economic opportunity.



Figure 1: Linkage between food security, sustainability and economics

The MAIFS organised "Les Assises de L'Agriculture "in March 2023 in collaboration with the EBD which engaged stakeholders (public & private), experts, academia and researchers in interdisciplinary discussions in the agricultural sector. The objective of these discussions was to find means to improve food security and to increase the contribution of agriculture to the economy. Participants collaborated to identify challenges, opportunities, and needs relating to six broad policy objectives, namely, fostering sustainable and resilient food security in Mauritius; developing sustainable value chains in Mauritius; facilitating a fair and socially responsible contract farming system in Mauritius; technology innovations for food security in Mauritius; farm diversification and climate change and agriculture in Mauritius-Impact and Adaptation. The Strategic Plan for the Food Crop & Livestock Sectors 2024-2030 follows earlier planning efforts, and has also benefited from the experience gained and lessons learned from recent reports formulated in the non-sugar sector such as the AfDB study on the Non-Sugar Sector and the UN Food System Summit Dialogues. It is noteworthy to mention that lessons learned from the implementation of the Strategic Plan 2016-2020 have been taken on board.

2.0 Purpose of the Strategic Plan

The development of the agricultural sector is expected to contribute to national wealth creation and increased employment along the agricultural value chains in a sustainable manner. This will enhance food security while supporting economic growth and transformation of the country. The rationale underpinning the Strategic Plan is the need for a framework to guide the identification of sector investments that will target increased production and productivity while building resilience of the agricultural sector against external shocks such as climate change and international conflicts. In the background, the implementation of the plan will improve the institutional and policy environment for overall guidance of the agricultural sector in line with national and relevant regional and international laws, policies, protocols and standards. Lastly, as a successor to the Strategic Plan 2016-2020, this Strategic Plan implementation is also expected to build on the achievements and lessons learnt over the last five years, while addressing and mitigating the identified shortcomings.

3.0 Agricultural Sector Overview and Performance

The agricultural sector in Mauritius has played a significant role in the country's economic development since the 19th century. While the sector's contribution to the country's Gross Domestic Product (GDP) has declined over the years, it remains an important source of employment and a key player in the country's food security and export earnings.

Agriculture, which includes crop, livestock, fisheries and forestry, contributes 4.1 % to the GDP. The Non-Sugar agriculture comprises 55% of this GDP with food crop consisting of 29% and livestock & poultry representing 26 %. Sugar cane is at 11 % while fisheries represent 15% of agriculture's contribution to the GDP. Tea, fruits, flowers, forestry and Government services are the remaining contributors to the GDP (Digest of Agriculture Statistics, 2023).

The sugar industry has historically been the most important sub-sector, accounting for over 33% of the total export earnings from agriculture. However, in recent years, due to the dismantling of sugar protocol, price volatility amongst others, the Government has been working to diversify the sector and promote other crops, such as fruits, nuts, vegetables and flowers.

The Government has introduced various initiatives to support the agricultural sector, including subsidies for inputs and equipment, promoting the use of modern technologies and improving access to markets. There has also been an emphasis on sustainable agricultural practices such as soil conservation and water management, to ensure the long-term viability of the sector.

Sugar Cane Industry

The sugarcane industry was the backbone of the Mauritian economy and has played a vital role in the country's development. Mauritius as a small island, is an important producer and exporter of sugar, with sugarcane accounting for a significant proportion of the country's agricultural output. Today, sugarcane is still the most important crop in Mauritius, with over 85% of agricultural land dedicated to its cultivation. The country produces an average of 250,000 tonnes to 300,000 tonnes of sugar annually, with the majority of this being exported to the European Union and other global markets (Source: MCIA).

The sugarcane industry in Mauritius has undergone significant changes over the years, with modernisation and diversification being key themes. The Government has introduced various initiatives and subsidies to modernise the industry and sustain productivity.

In addition to sugar production, the sugarcane industry has also diversified into other areas such as energy production, with bagasse being used to generate electricity. The industry has also expanded into the production of value-added special sugars and products such as rum and ethanol.

Despite these efforts, the sugarcane industry in Mauritius is facing numerous challenges, including fluctuating global prices, changing consumer preferences and competition from other sugar-producing

countries. However, the industry remains an important part of the Mauritian economy, providing employment to thousands of people and contributing to export earnings.

Food crops

Food crops are cultivated across the island but mainly in rural areas, which include over 40 different types of vegetables, root crops and spices. Food crop production in Mauritius comprises production from both the corporate sector as well as small planters. Small scale production consists of planters with an average holding of 0.3 hectares and a few farms with greater than 2 hectares (Source: FAREI).

Mauritius is self-sufficient in fresh food crops. Strategic crops like potato and onion being seasonal crops are imported only during off-season. Production of food crops is mostly done in open field. Moreover, during the last decade, the island has witnessed a rise in hydroponics production mainly due to higher yields and appealing quality of produce. Protected cultures also offer a higher protection against pests and diseases as well as against unfavourable climatic conditions like heavy rainfall.

Food crop production for 2022 reached 117,115 tonnes, representing an increase of 8% compared to 2021. The area of food crops harvested under protected cultures increased by 47.2%, from 53 hectares in 2021 to 78 hectares in 2022. Production increased by 51.2%, from 6,111 tonnes to 9,237 tonnes (Source: FAREI).

Fruits

Fruit production, consisting mainly of banana, papaya, pineapple and seasonal fruits such as litchi, watermelon and mango, represented a total annual supply estimated at 42,000 tonnes, over an equivalent of 2,100 hectares of land in 2022 (Source: FAREI). Nearly 2,400 tonnes of litchis and pineapples were exported in 2022 (Source: NPPO).

Ornamentals

The local requirement of flowers and ornamentals is mostly met from local production. Anthurium blooms are exported and the production is estimated at 8 million blooms annually. Ornamental supply has been diversifying towards rose production for the local market. Around 300 smallholder growers and some 20 large growers are involved in ornamental production valued at around Rs 650 million in 2022 (Source: FAREI).

Теа

Mauritian tea is known to be cultivated while respecting the environment without the use of pesticides. The local tea sector is being driven mainly by 1,200 smallholder tea cultivators cultivating approximately 75% of the area. Most of these plantations, with the exception of the métayers, are owned by the growers themselves and they have been managing them in a very efficient and effective way. There are four tea factories producing tea for the local market, namely, Corson Tea Estate, La Chartreuse Tea Manufacturing Co Ltd, Société Usinière de Bois Chéri and Mauristea Investment Ltd. Our annual national yield of 12,000 kg/hectare for the small planters is comparable with the major tea producing countries of the world. Production of green tea leaves went up by 26.2% from 5,034 tonnes in 2021 to 6,351 tonnes in 2022 while the production of tea increased by 5.4%, from 1,097 tonnes in 2021 to 1,156 tonnes in 2022 (Digest of Agricultural Statistics, 2022). The technical assistance of the Food and Agriculture Organization (FAO) has been sought to undertake a holistic transformation of the tea sector from bush to cup. A wide range of interventions to address the systemic challenges facing the tea industry and subsequently

transform the tea sector have been proposed with a view to improving the productivity and quality of tea and also the livelihood of tea growers.

Livestock

Livestock production is mainly of cattle, chicken, goats, sheep and pigs and is being undertaken by some 3,500 small breeders (Source: FAREI). In addition, there is a well-established deer sector which is operated by the corporate sector. Poultry (broiler chicken and eggs) dominates this sector and the country is self-sufficient in chicken, eggs and venison. The corporate sector is mainly involved in the poultry and deer sector though there is some activity in cattle (beef) production. In the poultry sub-sector, there are many small and medium farmers operating on contract basis with the corporate sector while the dairy sub-sector is largely characterised by traditional backyard producers operating singly on a low-input-low-output system of production, and are dispersed geographically throughout the island.

4.0 Situational Analysis

Agricultural sector contribution to the national economy

While the industrial base of Mauritius has been considerably widened, the agricultural and agroprocessing sector remains a vital social pillar of the country as sugarcane fields continue to dominate the landscape of the island. Keeping pace with the industrial development of the country, this sector has undergone substantial modernisation, transformation and diversification. For instance, the sugar industry has graduated into the cane industry with production of refined and special sugars, alcohol and rum, while high value-added horticulture, fruits and vegetables and a multitude of processed foods are now produced locally. Although the contribution of the agricultural sector to the GDP stood at 4.1 % in 2022, it has an undeniable socio-economic importance (Digest of Agriculture Statistics, 2023).

The figure below shows that the share of agriculture in GDP has been declining since the year 2006. However, it is to be noted that over recent years, the share of agriculture in GDP has shown an upward trend.



Figure 2: Trend in Agricultural Share of GDP (%) 2006 – 2023 Source: Digest of National Accounts, 2022

A breakdown of the value added in the agricultural sector is shown in figure 3. It can be seen that food crop and livestock sectors are the major contributors to the value added of the agricultural sector.



Figure 3: Value Added in Agricultural Sector by Product Group (2022) Source: Statistics Mauritius (Digest of Agriculture, 2022)

Table 1 below provides an overview of the major production in the food crop and livestock sectors. Strategic crops such as potatoes and onions dominate the production in the food crop sector out of a total production of 117,115 tonnes in the year 2022. On the other hand, in the livestock sector, the chicken meat and eggs production are the leading sectors with a well-established vertically integrated industry.

Food Crop		Livestock	
Description Of Product	Tonnes (t)	Description Of Product	Tonnes (t)
Potato	16,519	Beef ¹	2,071
Brinjal	3,165	Goat & Sheep ¹	55
Cabbage	5,925	Pork	583
Carrots	4,547	Chicken	55,700
Cauliflower	1,009	Eggs ²	16,300
Cucumbers	5,938	Game Meat	625
Lettuce	1,441	Rabbit	25
Onion	7,443		
Tomato	14,269		
Other fresh vegetables ³	47,379		

Table 1: Major Food Crop and Livestock Production Statistics

Source: Digest of Agriculture Statistics, 2022 / FAREI

¹ Including live imports.

² Equivalent to 221.8 million eggs (from chicken).

³ Includes green beans, beets, bittergourd, broccoli, calabash, chouchou, green onions, green peas, leek, okra, patole, petsai, pipengaille, pumpkins, squash, sweet pepper and voehm.

Growth Rates

Since the beginning of this twentieth century, the growth rate of the agricultural sector in Mauritius has been volatile. In the past eighteen years, the growth rate of the sector was on average at 2.8%. Exceptionally, in 2009, agricultural growth surpassed the Comprehensive Africa Agriculture Development Programme (CAADP) target of 6% with a growth rate of 10.2 %. However, the sector's growth started declining again from 2010 and hit an all-time low of -1.3 % in 2018. The agricultural growth rate has picked up again in recent years as shown in the figure below and this was caused mainly by high growth rates in the tea and livestock, poultry and derived product sectors. The sub-sectoral growth rate in the agricultural sector is illustrated below. The last two years have been marked by increased growth rates in non-sugar agriculture (7.3 % in 2022 and estimated at 11.8 % in 2023) (Digest of Agriculture Statistics, 2022).



Figure 4: Growth rate of Agricultural Sub-Sectors for the Years 2001-2022

Source: Statistics Mauritius, Digest of Agricultural Statistics, 2022

Agricultural Trade

The agricultural trade profile of Mauritius indicates that it is a net food importer. Indeed, the value of its imports of agricultural products in 2022 was around Rs 57 billion, compared to an export value of just over Rs 25 billion. An overview of the import and export profile of the country is provided below. Table 2 below outlines the profile of agricultural trade of the country in 2022.

Agriculture Imports and Exports

The bulk of imports concerns fish, crustaceans, molluscs and preparation thereof (20%) and cereals and cereal preparations (18%). On the other hand, agriculture plays a central role in traditional exports and holds potential for export diversification.

In 2022, exports of agricultural goods were about Rs 25 billion, roughly 42% of total goods exports. Exports continued to be dominated by sugar and prepared or preserved fish, which represented 34% and 46% of agriculture exports by value respectively. Other main products exported are live animals (primates), cereal preparations (e.g. uncooked pasta), beverages (rum, beer, and fruit juices), cut flowers, fruits (such as pineapples and litchis) and animal feed. Export diversification beyond traditional sugar and processed fish is essential for improving resilience against international commodity price shocks. To tap into international markets, it will be important to increase the scale of production through private investment

and by improving market linkages and logistics services, as well as the volumes and quality of supply from small-scale producers.

Table 2: Overview of Agricultural Trade by SITC Product Categories (2022)				
SITC (Div)	Agricultural Imports	Rs (M)	Agricultural Exports	Rs (M)
00	Live animals	1,073	Live animals other than animals of	2,182
01	Meat and meat preparations	4,357	Meat and meat preparations	0.64
02	Dairy products and eggs	6,210	Dairy products and birds' eggs	40
03	Fish, crustaceans, molluscs and preparation thereof	11,875	Fish, crustaceans, molluscs, and aquatic invertebrates and preparations thereof	14,920
04	Cereals and Cereal preparations	10,444	Cereals and cereal preparations	630
05	Vegetables and fruits	5,823	Vegetables and fruit	212
06	Sugar, sugar preparations and honey	3,251	Sugar, sugar preparations and honey	8,829
07	Coffee, tea, cocoa, spices and manufactured thereof	2,509	Coffee, tea, cocoa, spices and manufactures thereof	619
08	Feeding stuff for animals	2,615	Feeding stuff for animals (not including un-milled cereals)	1,528
09	Miscellaneous food preparations	4,414	Miscellaneous edible products and preparations	40
Sect 1	Beverages and tobacco	5,953	Beverages and tobacco	887
Div 42	Vegetable oils and fats	3,263	Vegetable oils and fats	60
Total agricultural and food products imports		61,787	Total agricultural and food products exports	29,948
Total Impo	orts	292,112	Total Exports	105,524
Total imports of agriculture and food products as a % of total imports		21.2	Total Exports of agriculture and food products as a % of total exports	28.4

Source: Statistics Mauritius, Digest External Trade, 2022

5.0 Constraints and Challenges

Mauritius faces various challenges in its agricultural sector. Some of the main challenges and constraints in food crop and livestock sectors in Mauritius include:

1. Climate change: changes in weather patterns, such as unpredictable rainfall, droughts, and extreme cyclones have a significant impact on crop and livestock productivity, and might lead to food insecurity;

2. Water scarcity: the availability of water for irrigation is limited and droughts are likely to exacerbate this issue;

3. Limited agricultural infrastructure: the lack of adequate infrastructure for production and food processing, such as processing plants and storage facilities, limit the capacity of farmers to process their produce, and others like the lack of production structures that supply breeding stock to livestock farmers;

4. Limited availability of suitable land for food crop and livestock activities: land allocation with appropriate amenities for agricultural activities is not always readily available and requires high investment for development;

5. Environmental and sanitary norms: compliance with stringent environment and sanitary legislation acts as a deterrent in agricultural activities;

6. Ageing farming population: there is an ageing farming population in Mauritius and many young people are not interested in the traditional agricultural sector, a factor that might lead to a potential shortage of farmers in the future;

7. Labour scarcity: shortage of labour in the market concerning manual workers has heavily impacted on agricultural production;

8. Limited access to market information: farmers in Mauritius may not have access to updated market information on prices, demand and supply, making it difficult to make informed decisions about what to produce and where to sell their crops. For livestock, there is lack of structured market for live animals, cuts and derived products which encourages illegal/informal slaughter with associated biosecurity hazards;

9. Lack of security: many farms in Mauritius do not have adequate security measures in place to prevent theft, such as fencing, cameras or security guards;

10. Limited access to finance: development of agricultural projects requires high initial investment with low rate of return;

11. Sub optimum agricultural productivity: limited adoption of good agricultural and animal husbandry practices as well as limitations in the availability of appropriate farm machineries for small scale operations. Restrictions in imports of inputs such as fodder seeds and related planting materials and limitations in the availability of inputs to encourage organic/sustainable production of livestock;

12. High costs and limitations in availability of inputs: over reliance on imported inputs (feeds, planting materials and agrochemicals); and

13. Lack of quality standards: limited compliance with International Codex Alimentarius standards. Lack of production standards and carcass grading systems for livestock.

6.0 The Strategic Plan Overall Policy, Vision, Mission, Objectives and Outcome indicators

The Overall Policy

Strengthening food security and sustainable agricultural development through:

- increased contribution of agriculture in the economy;
- provision of safe food;
- awareness and interest for agriculture to enhance business and employment opportunities; and
- sustainable use of resources.

Vision

To build a vibrant non-sugar agriculture and agribusiness sectors.

Mission

To enable and facilitate the advancement of agriculture and the agribusiness sector for improved food security and safety in line with the requirements for sustainable agricultural development.

Targets

The overall goal of the sector is: 'To achieve an average growth rate of 6 % over the next 7 years. The overall development and growth of the sector is anchored on three orientations or priorities as mentioned below as well as key targets for each orientation:

1. Boosting Production for Resilient Food Security: Increased production of food crops by 15 % under open field; 100 % increase production under protected structures; increased meat production⁴ by 50% and increased honey production by 20 % ;

2. Promoting Sustainable and Resilient Production: All farmers trained in sustainable agricultural practices; Acreage under sustainable agriculture to increase by 10%; and

3. Encouraging Entrepreneurship and agro-processing: Number of agro-entrepreneurs trained: 100 per annum; Entrepreneurs involved in agribusiness increase by 10 % per annum.

The targets have been set in line with the Government Programme and Vision 2030. It also domesticates the commitments taken by Mauritius with regard to the Sustainable Development Goals (SDGs), the United Nations Food Systems Summit (UNFSS), the Comprehensive Africa Agriculture Development Programme (CAADP) as well as the Agricultural Commitments to the United Nations Framework Convention on Climate Change (UNFCCC) as outlined in the Nationally Determined Contributions (NDCs - 2021).

7.0 Food Crop Cluster Analysis

A commodity cluster analysis is presented in detail below for major food crop commodities with respect to their potential to maintain and where possible to improve our food self-sufficiency. The objective is to sustain production for those crops where we are already self-sufficient, and extend production for others to meet the increasing demand. This would only be achieved provided challenges and limitations (land availability, prevalence of pests and diseases and labour among others) are addressed. Where imports are significant, efforts will be made to increase local production. Measures proposed to boost production are geared towards decreasing our reliance on imports for inputs, improving productivity and relevant accompanying measures to encourage production for all categories of planters. The targets for selected crops in the food crop cluster analysis is presented in Table 3 below.

Table 3: Targets for Selected Crops with potential for increased production

Major Food Crop Categories	Consumption ⁵	Baseline Production (2022)	Target (2030)
Potato	25,000	16,519	23,000
Onion	17,500	7,443	8,700
Garlic	2,000	49	186
Crucifers	7,032	7,032	8,000
Cucurbits	28,142	28,142	32,363
Legumes (french beans & green peas)	1,560	1,560	1,794
Tomato	14,269	14,269	15,000
Starchy Crops (eddoes, cassava, sweet potato)	5,190	5,190	5,968
Fresh Fruits	65,206	42,660	50,000

Source: FAREI/NPPO/Digest of Agriculture Statistics, 2022

⁴ Excluding Poultry

⁵ Refers to consumption in fresh forms only

7.1 Potato

Potato is a controlled product under the Mauritius Agricultural Marketing Act and is considered a strategic crop due to its importance in the consumption habits of the local population. Its annual local production is estimated to be around 16,500 tonnes representing 66% self-sufficiency. It is a seasonal crop produced with a crop cycle of three months produced in two seasons: first season (mid-April to end-June) and second season (July-August). Local potato production is undertaken both by corporate planters (mainly Cie de Beau Vallon, Gros Cailloux, St. Antoine, ENL, Medine, Senneville, Terra, Omnicane, Innovagri, Alteo) and small planters. The production of ware potatoes is dominated by the corporate sector which satisfies some 80% of the total production. The national annual consumption of ware potato averaged to 25,000 tonnes and around 9,000 tonnes of ware potato and 6,000 tonnes of potato processed into frozen fries are imported. Potato processed into crisps, dehydrated flakes and granules are also imported. The current demand of seed potato is 2,500 tonnes of which around 600 tonnes are produced locally and the remaining are imported. Variety-wise among the potatoes, Spunta is the main variety planted, accounting for about 62% of plantations. Imported seed Spunta represents 43% while the locally produced seed represents 19%, followed by Delaware (31%). Other varieties such as Vigora, Everest or others represent roughly 7% of the acreage planted. Potato seeds are either sourced locally (Spunta and Vigora) or imported mainly from France, Netherlands, Australia and South Africa by the AMB and private parties, subject to the prior approval of the AMB (Source: FAREI/AMB). To attain a self-sufficiency ratio of 90% representing around 23,000 tonnes by the year 2030, the following accompanying measures are proposed:

- reviewing the Potato Seed Purchase Scheme to assist all categories of planters in purchasing seed potatoes;
- reviewing the pricing and grading system for local potatoes;
- establishing Memoranda of Understanding (MoU) with foreign seeds producers to secure seeds availability and contract production for selected varieties;
- developing and recommending high yielding potato varieties that are tolerant to pests and diseases such as bacterial wilt;
- identifying and recommending potato varieties suitable for cultivation in 1st and /or 2nd season;
- identifying potato varieties suitable for processing into French fries and crisps and training of agro-entrepreneurs;
- providing financial incentives for the purchase of machinery to mechanise field operations at planting, ridging and harvesting to reduce cost of production for all operators; and
- exploring options to enhance the storability for ware and seed potato at AMB.

7.2 Onion

The annual national fresh onion requirement is estimated at 17,500 tonnes, of which around 7,443 tonnes are produced locally (representing some 42% level of self-sufficiency) over 330 hectares of land and the remaining are imported (10,691 tonnes). Onions are harvested from August to December. They are also considered a strategic crop and production and price are regulated through the AMB. The production of onion is dominated by the corporate sector with 5,500 tonnes (Cie de Beau Vallon, Gros Cailloux, St. Antoine, ENL, Medine, Senneville, Terra, Innovagri) and some 2,000 tonnes for small planters. Two main types of onions produced are Red (Francia, Bellarose, Rosada and Rubex) and Yellow (Chelsea, Irati, Sirius, Star 5516). Local onion seeds are produced both by the corporate sector (around 85%) and some small planters (around 15%) with an average annual production of some 600 kgs (Source: AMB/FAREI). To achieve an onion production of 8,700 tonnes representing around 50% self-sufficiency by 2030, the following support measures are proposed:

- reviewing the Onion Seed Purchase Scheme (including hybrid seeds) to all categories of growers to encourage production;
- encouraging growers with scheme to set up onion nursery and onion curing units;
- developing and disseminating high yielding onion varieties that are tolerant to pest and diseases;
- identifying early and late maturing varieties with good storability through research;
- extending onion production season using onion sets for early production and green onion production;
- developing market opportunities for high value-added products such as onion pickles, flakes and powder; and
- providing additional improved curing and storage facilities at the AMB based on targeted production.

7.3 Garlic

Garlic is a widely used condiment spice in the local cuisine with a national annual consumption estimated at around 1,860 tonnes (155 tonnes per month). It is a controlled product by the AMB and despite various support measures to encourage local garlic production, the annual production has remained low mainly due to the high cost of production, risk associated with crop loss due to diseases, limited availability of quality planting materials and competition from imported garlic. Around 1,900 tonnes of fresh garlic are imported annually to meet the national requirement (Source: AMB/FAREI). To substitute imports, the Government plans to revive the local garlic production target of 186 tonnes (representing around 10% self-sufficiency) by 2030. To achieve this target, the following support measures are proposed:

- reviewing the Garlic Seed Purchase Scheme, and the guaranteed attractive price of table garlic;
- providing financial facilities to all operators for the purchase of machinery for land preparation and planting;
- providing additional storage facilities at the AMB;
- ensuring supply of high yielding varieties through MoU with international suppliers; and
- developing market for value-added products such as garlic pickles, flakes, paste and powder.

7.4 Cucurbits

Cucurbits constitute of a range of cultivated species such as pumpkin, cucumber, squash, chayote (chouchou), calabash, zucchini, ridge gourd, bitter gourd, snake gourd, butternut, melon and watermelon. Production of these cucurbits for 2022 amounted to 28,142 tonnes from an area of 2,115 hectares. Being self-sufficient in most of the species, only a small volume of squash, cucumber and zucchini is imported to cater primarily for the hotel industry. The production of these cucurbits is estimated to reach 32,363 tonnes by 2030 with an increase of 15% (Source: FAREI). To that effect, the following measures are proposed:

- promoting protected cultivation;
- increasing seeds production at the Barkly Experiment Station and promoting Quality Declared Seeds (QDS) Scheme;
- introducing improved varieties with higher yield for both open field and protected culture;
- developing varieties that are adapted to climate change;
- providing storage facilities for commodities like butternut and pumpkin;
- improving cultural practices (trellising and irrigation facilities); and
- promoting pre-harvest and post-harvest practices to increase the shelf life.

7.5 Crucifers

Cabbage, cauliflower and broccoli are major food crop produced more or less throughout the year. In 2022, the production of cabbage was estimated to be 5,925 tonnes cultivated on an area of 313.1 hectares and for cauliflower, an estimated 1,009 tonnes were produced on an area of 79.4 hectares. Broccoli was cultivated on an area of 15.1 hectares in the year 2022 with a production of 98 tonnes. By 2030, the demand of crucifers is expected to increase and the production is expected to be around 8,000 tonnes per year (Source: FAREI). To achieve an annual production of 8,000 tonnes per year, farmers must be provided with the following incentives:

- providing facilities for mechanisation of cultivation to be extended to all operators;
- introducing and developing new varieties suitable for different agro-climatic conditions, different seasons and adapted to changing climate; and
- increasing seeds production at the Barkly Experiment Station and promote QDS Scheme.

7.6 Legumes and Pulses

The area under fresh snap beans production over the last five years has varied between 246 hectares to 270 hectares with an annual production fluctuating between 1,442 tonnes to 1,623 tonnes. Local production of dry bean is almost negligible due to cheaper import of some 1200 to 1300 tonnes of bean pulse annually. On the other hand, in 2022, some 9 tonnes of mature bean pods (Haricot Pale) were produced. Despite the country being self-sufficient in green beans, around 200 to 360 tonnes of processed frozen beans are imported annually to cater for the tourism and catering sectors and to alleviate low supply of green beans after a cyclonic event. Two improved snap bean varieties, namely, FBS1 and FBS2 were recently released by FAREI and have been disseminated among growers. The FAREI also released a new biofortified bean pulse variety Ferrina. In the context of food and nutrition security, it is targeted to increase the local snap bean production to 1,740 tonnes and haricot pale production to 54 tonnes by 2030 (Source: FAREI). To achieve these targets, the following accompanying measures are proposed:

- developing improved high yielding, disease and heat tolerant bean varieties through research;
- introducing, evaluating and disseminating improved bean varieties;
- promoting the mechanisation of bean harvest and threshing;
- providing Bean Seed Subsidy Scheme;
- boosting local seed production using QDS guidelines and support for seed processing and marketing; and
- promoting large scale production of newly-released pulse varieties.

7.7 Starchy Crops

Starchy foods are the main source of carbohydrate and play an important role in a healthy diet. They are also a good source of energy and the main source of a range of nutrients. As Mauritius imports most of its staple food, emphasis is being made on the production of starchy crops like breadfruit, cassava, banana, taro/eddoes and sweet potato. It is to be noted that breadfruit is usually exported to Europe and amounted to some 119 tonnes in 2022 (Source: NPPO). The objective is to promote the production of starchy crops as substitution for imported sources of carbohydrates by:

- raising awareness of the population on eating local starchy crops and sensitising them on their health and the related environmental benefits;
- increasing production of quality planting materials;
- disseminating quality planting materials to promote backyard and commercial plantation;
- introducing, evaluating and disseminating improved varieties of sweet potato, eddoes and cassava;

- capacity building in breadfruit tree management, postharvest handling and processing of breadfruit; and
- Encouraging the agribusiness opportunity in processing of local starchy crops into flour for substitution of import of wheat flour.

7.8 Tomato

The annual production of tomato amounted to 14,269 tonnes in 2022 while an average volume of 9,700 tonnes of processed products were imported for the last three years for a Cost Insurance and Freight (CIF) value of USD 8 million. Processing industries use imported concentrate for value addition and packaging. Processed products in the form of whole peeled, tomato sauce and ketchup are imported (Source: Digest of Agriculture Statistics, 2022). To cater for the fresh market and raw material for processing at cottage level, a production target of 15,000 tonnes is set by 2030. In order to achieve this set target, the following measures should be made available:

- introducing and developing varieties adapted to the local climatic condition and tolerant to major diseases;
- providing incentives for the adoption of sustainable production practices; clustering; exploitation of abandoned land; agribusiness ventures in processing food for local market;
- enhancing R&D in new technologies to increase land productivity and sustainable production and ensure food and nutrition security; biotechnology and biological inputs in production systems; tools to address labour shortage, improve post-harvest life and minimise food wastage; addressing climate change mitigation and adaptation;
- promoting Technology Exchange, capacity building and effective information and communication management; support to agro-entrepreneurs through training to identify potential agribusiness and its feasibility;
- promoting value addition of primary farm produce; and
- promoting commodity value chain and agribusiness development.

7.9 Fruits

Fruit production consists mainly of banana, pineapple, papaya and seasonal fruits such as litchi and mango and is estimated around 42,660 tonnes annually, over an equivalent of 3,065 hectares of land in 2022. The other fruits produced include citrus, coconut, pitaya, avocado, passion fruit, jujube, longan, strawberry and a range of under-utilised species such as jackfruit, starfruit, guava, hog plum, annona, tamarind and pomegranate among others. The production is mainly destined for the domestic fresh market and the growing local agro-processing sector except for litchi, pineapple, breadfruit and passion fruit which have an export market in Europe. Major exports for 2022 concern litchis (400 tonnes) and pineapples (1,731 tonnes) (Source: FAREI). In order to achieve a target of 50,000 tonnes at both commercial and backyard levels, the following measures should be made available:

- introducing new planting materials (new banana varieties resistant to diseases, avocado, litchis, longans, mangosteens, date palm, coconut, seedless guava and pineapple) for sale to growers at subsidised and affordable price;
- strengthening the capacity of the Horticulture Division of the MAIFS for the production of quality materials;
- incentivising the establishment of mixed fruit orchards based on agroforestry systems;
- incentivising the establishment of commercial orchards; and
- reviewing the Bird Net Scheme for bat damage reduction.

8.0 Livestock Cluster Analysis

The livestock cluster analysis provides an overview of key livestock sub-sectors and necessary measures to achieve targets set. There are specific constraints in the livestock sector such as the dependency on foreign sources for feed ingredients, supply of livestock products (meat, milk, dairy products, etc.) as well as availability of breeding animals. Limitations regarding the availability of land and environmental aspects hinder the scope for expansion of this sector. Measures proposed to boost production are geared towards decreasing our dependence on imports for inputs, improving productivity, increasing the national herd and accompanying measures with a view to improving our food security and sovereignty.

8.1 Poultry

The livestock sector in Mauritius is dominated by poultry (broiler chicken and eggs) for which selfsufficiency in fresh/chilled/frozen poultry has been reached since a number of years though there are some imports of processed poultry products. The annual poultry production is currently of the order of 55,700 tonnes of poultry meat and 221.8 million eggs with an annual per capita consumption for chicken meat being 43.28 kg per year and 10.81 kg per year for eggs. Around 513 tonnes of chicken meat for processing (Digest of Agricultural Statistics, 2022) and 5000 tonnes further processed products such as sausages, nuggets, burgers and canned poultry products are imported. The industry consists of major corporate players who supply about 80% of poultry meat to the market. There are also small-scale producers involved in this sector of around 312 breeders for broilers rearing with a bird population of 1,048,714 hen and 130 breeders for layers (eggs) with around 332,879 chicken (Source: FAREI). Given the challenges in this sub-sector, it is proposed that the country builds resilience for poultry sector and ensures the sustainability of the sector through the following measures:

- signing of the Sanitary and Phytosanitary Agreements on veterinary matters and animal health with partner countries to facilitate imports of parent/grandparent stock (Kenya, Zimbabwe, Madagascar, Zambia) and to facilitate sourcing of parent/grandparent stock from other sources;
- signing of SPS Agreements with partner countries to facilitate the importation of raw materials for feed such as soya/maize to facilitate import of feed ingredients from other sources;
- enhancing Biosecurity Control Measures and Surveillance through the professionalisation of small farmers; and
- encouraging other poultry species such as quails and local poultry, among others.

8.2 Cattle (Beef)

Some 193 farmers are involved in beef fattening while an additional 61 farmers do both dairy and beef fattening, supplying fresh beef to the local market (Source: FAREI). There are two corporate companies with significant herds operating in the sector (ENL Agri and Cie Sucriere de Saint Antoine) as well as other private farms. To meet the local demand of beef, 6,693 heads were imported in 2022 and 716 heads were brought from Rodrigues, while only 12 heads reared locally were slaughtered at the central abattoir operated by the Mauritius Meat Authority (MMA) (Digest of Agricultural Statistics, 2022). Local beef production was 2.6 tonnes and 120.4 tonnes from Rodrigues (Digest of Agricultural Statistics, 2022). Due to informal and/or illegal slaughtering, there is an additional 15 tonnes of beef supplied in the market. Considering the limited land available for setting up of beef farms, the production target set for fresh beef meat by 2030 is 36 tonnes from the locally reared animals and the following accompanying measures are proposed:

• importing weaners for breeding and fattening, including for Rodrigues;

- increasing productivity by providing beef type semen, increase fodder yield (develop new plots and pastures through schemes, importation of fodder planting materials, etc.) and promoting adoption of fodder conservation and feed technologies;
- increasing access to inputs and services by increasing access and quota for bagasse, molasses and cane trash and extending feed subsidy for beef farmers; and
- operationalising the slaughter house with integrated meat processing plant in Rodrigues and premovement isolation facility.

8.3 Cattle (Dairy)

The dairy sub-sector has been and is still largely characterised by traditional backyard producers operating singly on a low-input-low-output system of production, and are dispersed geographically throughout the island. The dairy sub-sector comprised small breeders and a few medium breeders (with more than 20 heads). In 2022, there were around 314 dairy breeders with a total cattle head of 2,111 and producing some 2.7 million litres of fresh milk. There are also two pasteurising plants currently in operation and some companies are also involved in milk processing (Source: FAREI/Digest of Agriculture Statistics, 2022). The following measures are proposed to increase local milk production to some 6 million litres:

- increasing multiplication and sale of animals through reproduction farms;
- improving artificial insemination;
- increasing access to inputs and services: policy to ensure access to bagasse, molasses and cane trash and improve access to drugs and veterinary support; and
- assisting farmers with marketing through access to public markets (hospitals and schools) and support to agro-processors.

8.4 Deer

Deer farming has established itself as a full-fledged economic activity and also an integral part of the livestock sector. Venison has become the main source of red meat consumed by all ethnic groups of the Mauritian society. The local deer population is estimated at 80,000 heads, reared on 25,000 hectares of land of which 15,000 are privately owned and 10,000 are leased State forest lands. Venison production was estimated to be at 543 tonnes in 2022, of which around 96% marketed during the hunting season (June to September). In addition, about 20 tonnes of venison emanating from intensive farms are produced during the out-of-hunting season and the carcasses are processed at the central abattoir and marketed by private companies (Source: FAREI). The production target for venison is 800 tonnes by the year 2030 and the following accompanying measures are proposed:

- reviewing the pasture development scheme by increasing the ceiling;
- extending the hunting season by one month until 30 October to bring an additional 100 tonnes venison;
- introducing a feral dog control plan to prevent loss due to attacks by dogs in *chassées*; and
- facilitating the setting up of regional abattoirs by the private sector for year-round production.

8.5 Goat/Sheep

The local goat population in 2022 was around 23,924 heads with 1,815 goat breeders while for the sheep sub-sector, there was a herd of 5,750 heads with some 441 sheep farmers engaged in this activity (Source: FAREI). The most common rearing system is backyard confined stall fed characterised by cut and carry of fodder which is collected by the roadsides, sugarcane fields, forest lands or marginal lands. This system is

practised mostly by small to medium farms but on some medium farms grazing in marginal lands is practised. Based on abattoir slaughter statistics, local production of goat meat (including Rodrigues) was 18.8 tonnes in 2022 and 1.2 tonnes from imported animals. On the other hand, local production of mutton (including Rodrigues) had reached 25.7 tonnes in 2022 and 9.3 tonnes were from imported animals (Digest of Agriculture Statistics, 2022). It is estimated that an additional 15 tonnes of goat meat come from illegal/informal/home slaughter. Goat meat is consumed by all ethnic groups and its demand is high during festive periods. For this sub-sector, the target set is to increase local goat meat production to 40 tonnes and sheep meat (lamb and mutton) to 50 tonnes (including from Rodrigues and Agalega) by 2030 and the following measures are proposed:

- import of some 1,000 breeding stock for multiplication;
- introduction of 500 breeding animals of dairy breeds for evaluation and multiplication;
- increasing productivity mainly through artificial insemination, optimising yield from fodder plots; increasing offtake rate and farm turnover; promoting adoption of fodder conservation and feed technologies;
- increasing access to inputs and services mainly through improved access to drugs and veterinary support;
- establish a centralised collection system to improve marketing and address illegal slaughter; and
- undertake a feasibility study for the setting up of a reproduction farm in Agalega.

8.6 Pig

The local pig sector comprises mainly the production of pork which is mostly used as fresh meat. Pig rearing is undertaken by some 445 pig breeders with a pig population of some 21,484 heads. A low input system consisting of several small breeders as well as a few more intensive large breeders characterise the pig industry. The farms are located at Albion, Olivia, St. Martin and Bassin Requin regions. Around 40% of local pig production comes from St. Martin and Bassin Requin pig rearing zones. The level of animal husbandry and waste management is poor and producers have difficulty to comply with environmental and health regulations. High cost of feed is a serious issue. Slaughter statistics indicate a sustained reduction in the number of pigs slaughtered at the central abattoir with pork production decreasing from 606 tonnes in 2017 to 583 tonnes in 2022. Some 1,178 tonnes pork cuts were imported in 2022 as locally produced carcasses do not match the quality required for processing (Digest of Agriculture Statistics, 2022). The marketing of fattened pigs is mainly dominated by middlemen and butchers. One Government-owned slaughter house, 18 registered butchers, four processing plants and a dozen meat shops are presently supporting the pig industry. The target set for the pig sector is to sustain pork production and improve the quality of pork meat produced through the following measures:

- replacing existing breeding stock through imports;
- increasing productivity by improving feeding practices and carcass quality to address swill feeding by increasing quota;
- using Artificial Insemination (AI) and recruiting veterinarians;
- establishing a waste treatment system at St Martin (Phase 2) and rehabilitating the waste treatment at St Martin (Phase 1); and
- enhancing market structures (access to market for primary and secondary products): to introduce pig grading system, to raise awareness on the production of quality carcass and value addition to promote a *produit terroir*.

8.7 Apiculture

Apiculture is practised by some 625 beekeepers mainly as a part-time activity in Mauritius. There are currently some 2,000 bee colonies located at Bras d'Eau, Roches Noire, La Ferme, Rivière Noire and Chamarel. Annual honey production has increased significantly in recent years to reach some 32 tonnes in the year 2022. The two main limiting factors for the expansion of apiculture in Mauritius are the varroa mite and the shortage of melliferous plants. Apiculture can only be boosted by the control of the varroa mite coupled with the plantation of suitable melliferous plants in the forests, along roads and in landscaping sites. With a view to boosting production to some 60 tonnes by 2030, the following measures are proposed:

- emphasising the registration of beekeepers and proclamation of Bee Zones by legislation on Animal Health and Livestock Production;
- creating two additional bee zones at Pailles and Dauguet, Port Louis;
- afforesting Signal Mountain with melliferous plants and extending same to other mountains under the supervision of the Forestry Service;
- reviewing the Beekeeping Promotion Scheme; and
- extending the afforestation programme with melliferous plants to Rodrigues.

8.8 Rodrigues and Agalega

Rodrigues has the potential to increase its production capacity to double current production of cattle, goats and sheep to supply Mauritius if appropriate support is provided in terms of land clearing for rehabilitation of cattle walks; waiving of freight on water tanks for water capture; fencing in silvopastoral units; rehabilitation of fodder in silvopastoral units; clearance from the Forestry to introduce livestock in silvopastoral units, animal identification by microchipping; provision of water points (water troughs, water tanks etc), incentive schemes to improve farm structures and management for individual and groups of breeders, support for development of intensive farms, support to encourage livestock waste recycling in maize cultivation to encourage channelling of green maize stovers for livestock feeding and operationalisation of slaughter house with integrated of meat processing plant in Rodrigues and premovement isolation facility. With regard to Agalega, it is envisaged that livestock could be promoted through the setting up of a reproduction farm, possibly for small ruminants.

9.0 Strategic Orientations and Interventions

The strategic orientations and interventions identified in this Plan will help attainment of the targets set for the agricultural sector in line with stated aims and objectives. It is also based on the cluster analysis which has been carried out for the food crop and livestock sectors. The strategic orientations are primarily geared towards boosting production in a resilient manner for food security, secondly to promote sustainability in our production practices and thirdly, to encourage new entrants and encourage existing farmers by promoting entrepreneurship and value addition.

9.1 Strategic Orientation 1: Boosting Production for Resilient Food Security

Food insecurity is a major concern in many parts of the world, and Mauritius is no exception. The situation has aggravated as a result of the multiple shocks which have led to global food price fluctuations, supply chain disruptions, climate crisis impacts and limited access to resources. There is thus a need to develop a robust food security strategy which addresses these challenges so as to increase resilience of the agrifood sector.

9.1.1 Intervention 1: Develop Appropriate Infrastructure

Agricultural production is supported by the Ministry through relevant infrastructure. Various organisations/departments have infrastructure for research and demonstrations as well as production/units. Infrastructure has been set up by the Ministry to support the farming community. This comprises crop research stations at Wooton, Réduit, Richelieu and Pamplemousses, the four model farms (Mapou, Flacq, Plaisance and Rivière des Anguilles), the Barkly Experiment Station, the Bambous Seed Production Centre, the Curepipe Experiment Station, the Plaisance Experiment Station, the Richelieu Experiment Station, the Albion Experiment Station, and laboratories such as the Food Technology Laboratory, the Agricultural Chemistry Laboratory and the tissue culture laboratory at Barkly Experimental station. In the livestock sector, there are the Production and Sale of Day-Old Chicks (Poultry Breeding Centre, Réduit); Research & Development at the Curepipe Livestock Research Station, the Belle-Mare Research Station, the Salazie Sheep and the Melrose Cattle Reproduction Farm, the Albion Duck Farm, the Poultry Quarantine at Curepipe and Central Abattoir MMA (Roche Bois). As a prerequisite to enhance production, it is important to address infrastructure issues at the Ministry to increase agricultural production and at the same time ensure food safety. The following actions are proposed:

Food Crop Sector

- Activity 1.1 **Upgrading of Tissue Culture Laboratories for propagation of planting materials**: Upgrade the Tissue Culture Laboratory (TCL) at FAREI Réduit with an automated system in TCL for further research in high value crops and improve facilities for hardening tissue cultured plantlets. A new well-equipped tissue culture laboratory will be set up at the Horticulture Division with a modern system for production and multiplication of tissue cultured plantlets.
- Activity 1.2 **Establishing new Pest and Disease Diagnosis Infrastructure**: Establish a well-equipped plant pathology laboratory with modern equipment and facilities for disease diagnosis and research; establish well equipped glasshouse facilities for research in plant protection for screening of crop varieties against key pests and diseases; and establish and upgrade facilities for research on biological control of pests.
- Activity 1.3 Upgrading Infrastructure at Crop Research Stations, Model Farms & Agro-Processing Resource Centre: Upgrade molecular laboratory at Wooton Crop Research Centre (WCRS) with new equipment; upgrade post-harvest and agro-processing research facility (WCRS); relocation of plant, soil and water research facility (WCRS) in new building under construction; establish fully equipped packhouse facilities for proper handling of harvested produce at Wooton CRS, Réduit CRS, Richelieu CRS and Model farms to be upgraded for demonstration of new technologies and best practices.
- Activity 1.4 **Construction of new building for post-harvest unit and agro-processing Incubation Centre**: A new Post-Harvest Unit and a new *Central-Agro Processing Incubation Centre* to be constructed due to safety and health issues in the current building at Wooton.
- Activity 1.5 **Upgrading of Laboratories**: Procurement of additional laboratory equipment at the Agricultural Chemistry Division to augment capacity for soil analysis, pesticides residue analysis and honey analysis; at the Food Science and Technology Division to increase capacity for analysis of food and feed for ensuring food safety and quality along the food chain; upgrading of the existing capacities at the Biomolecular Laboratory for testing of Genetically Modified Organisms; and upgrading of the Food Technology Laboratory infrastructure to be in line with ISO 17025.
- Activity 1.6 **Upgrading the seed production infrastructure and importation of disease-free planting materials**: Purchase of machinery and equipment of seed production centres; the seed and field gene banks to improve the conservation of crop genetic resources. Setting up of orchards and food crops with imported disease-free planting materials.

- Activity 1.7 Setting up and upgrading of agroforestry sites: Agroforestry combines agricultural and forestry technologies to create more diverse, productive, profitable, healthy, and sustainable land-use systems. There are many benefits to agroforestry such as increasing farm profitability. In this endeavour, in addition to existing infrastructures (Bras D'eau, La Ferme, Ville Bague, Pailles and Petit Sable), basic amenities will be provided at the Agroforestry model plots of at Britannia and Petit Merlot.
- Activity 1.8 **Construction of a Plant Containment Facility at Réduit**: New infrastructure and equipment to be put in place at Réduit to enhance biosecurity with regard to the introduction of planting materials and biological agents.
- Activity 1.9 **Upgrading the land drainage system on State land leased for food production:** A feasibility study is to be carried out for upgrading the land drainage system on State land leased in order *to mitigate soil erosion and crop losses during excessive rainfall.*
- Activity 1.10 Installing photovoltaic panels: Reduce production cost and use green energy battery storage and grid-tied systems for the supply of electricity to the FAREI and Agricultural Services stations/ laboratories.

Livestock Sector

- Activity 1.11 **Upgrading and Setting up of Research Infrastructure:** Several equipment would be required and physical infrastructure improved at Belle-Mare. For the Curepipe Livestock Research Station (LRS), a new site will be identified and basic amenities provided in view of the relocation of the station with more land to extend activities for natural farming.
- Activity 1.12 **Consolidating Livestock Breeding Centres:** The supply of affordable breeding stock to the farming community and the public is an important contributor to the sustainability of the livestock sector as well as to the livelihoods of farmers. The production capacity of the Melrose Cattle Reproduction Farm, the Salazie Sheep Reproduction Farm and the Poultry Breeding Centre will be increased significantly to ensure the least possible dependence on imported breeding stock.
- Activity 1.13 Setting up of a Goat Reproduction Farm: In line with the strategy to decrease reliance on imported breeding stock, a new goat reproduction farm would be set up to produce goat kids for sale to farmers at Riviere du Rempart.
- Activity 1.14 **Upgrading of Incinerator Facility**: Upgrading Incinerator facility at *Bassin Requin* to increase capacity.
- Activity 1.15 **Rehabilitation of Central Abattoir**: Acquisition of equipment for infrastructure repairs are required at the central abattoir in order to ensure safety requirements for staff, compliance with Hazard Analysis and Critical Control Points (HACCP) certification and food safety regulations.
- Activity 1.16 **Creating and Proclaiming of Bee Zones and afforestation**: Additional Bee Zones to be set up and afforestation to be carried out in order to boost honey production.
- Activity 1.17 **Upgrading the Animal Health Laboratory:** The Animal Health Laboratory (AHL) at Réduit would be revamped in line with ISO standards. The AHL will be upgraded for future accreditation of several sections of the Laboratory in line with the ISO 17025. The diagnostic methods used at the AHL would be broadened. Currently the AHL is limited to simple diagnostic methods such as bacterial culture, faecal flotation tests, Rose Bengal Tests, Enzyme Linked Immunosorbent Assay (ELISA tests), blood smear and staining Single Intradermal Comparative Cervical Tuberculin (SICCT) test. The AHL would build capacity in new diagnostic methods and other methods recommended by the World Health Organisation for Animal Health (WOAH).

- Activity 1.18 **Setting up of Quarantine**: A state-owned quarantine facility would be set up to cater for import of breeding and slaughter livestock. Site identification will be carried out and the possibility of rehabilitating the Richelieu Quarantine Station will be explored.
- Activity 1.19 Setting up of a Pig Al Unit: Identify land and set up infrastructure. The relaunching of a Porcine Artificial Insemination Service will enable the introduction of new genetics into the national pig herd.

9.1.2 Intervention 2: Improve Access to Inputs (Planting materials and access to animal feed and fodder)

Food Crop

- Activity 2.1 **Promoting seed entrepreneurship**: Capacity building of planters to engage in seed production and entrepreneurship through a contract farming framework.
- Activity 2.2 **Establishing a database of seed varieties**: Repository of seed varieties that are best adapted to local conditions with a view to reducing dependency on costly imported hybrid seeds.
- Activity 2.3 **Strengthening the seed certification system and quality control**: Develop the legal, technical and administrative framework for effective implementation of the Seeds Act.
- Activity 2.4 **Supporting planters to accede planting materials and inputs**: Schemes to be implemented and reviewed (wherever required). This includes the Quality Declared Seed Scheme, the Seed Purchase Scheme, Fertiliser Subsidy Scheme and other schemes to be devised. Importation of disease-free planting materials for sale to growers at a subsidised price.
- Activity 2.5 Increasing local seed production: New seed processing equipment to be procured to enable automation and modernisation of the seed production process and to reduce crop losses adversely impacting on seed production due to climate change effects, pests and diseases. An increase of 20% in local seed production is targeted by 2030.

Livestock

- Activity 2.6 **Promoting Fodder Production and Conservation**: *Establish new fodder production sites, conservation sites and incubators for prospective farmers and agribusiness.*
- Activity 2.7 **Promoting access to inputs for livestock production**: Schemes to be implemented and reviewed (wherever required). This includes schemes with respect to subsidy on livestock feed, veterinary services and animal drugs. Access to feed with regard to required quantum of farmers will have to be ensured.
- Activity 2.8 Facilitating the importation of breeding stock for direct distribution to farmers: With a view to addressing the acute shortage of quality breeding stock for ruminants and pigs, animals to be imported on a regular basis and sold to interested farmers.

9.1.3 Intervention 3: Research & Development

Demand-driven and innovative R&D is an important function to support agriculture development. Research emphasis is placed on areas such as soil health and soil fertility management, the development of disease, heat and drought tolerant varieties and integrated farming systems, which play a key role in improving crop productivity. The objective is to disseminate locally produced inputs and innovative technologies to mitigate risks and improve productivity. Over the recent years, with the increasing concerns in climate change, the importance of underutilised crop varieties and breeds has been gaining worldwide recognition but owing to their decreasing numbers, conservation programmes are essential for long term utilisation. The following actions are being proposed:

Food Crop Sector

- Activity 3.1 **Developing and promoting new production technologies**: *Vertical farming, aquaponics, fertigation and water saving technologies and crop management practices to enhance agricultural productivity, nutrition security and sustainability will be promoted.*
- Activity 3.2 Introduction and Development of new crop varieties: Improve yield, nutritional, sensory qualities and postharvest quality, and tolerance to biotic and abiotics stresses (climate resilient, heat, drought, pests and diseases tolerant). Extend the range of crops varieties and production period.
- Activity 3.3 **Conserving and promoting under-utilised crop species**: *Research on plants such as leguminous crops and ethnic fruits.*
- Activity 3.4 **Developing and promoting eco-friendly fertiliser packages for crop production**: Minimise the use of chemical fertilisers and evaluate novel and organic based fertiliser and compost.
- Activity 3.5 **Developing a soil suitability map**: Improve soil fertility and research on soil health management and study the impact of farming practices on soil microbiome and fertility.
- Activity 3.6 Introducing, developing and promoting efficient technologies: Improve nutrient management systems such as Integrated Plant Nutrient Systems (IPNS) for precision nutrient management plans, use of solar energy for irrigation and product dehydration.
- Activity 3.7 **Developing techniques for mass multiplication by conventional and tissue culture techniques**: Develop and fine-tune protocols for mass multiplication of vegetable, fruit and ornamentals through in vitro techniques.
- Activity 3.8 **Enhancing capacity building**: Training of researchers in new crops varieties, plant breeding, molecular breeding, pest and disease diagnosis, postharvest and agroprocessing, modelling for disease and production forecasting, Integrated Pest and Disease Management (IPDM), organic farming, agro-ecology, permaculture, soil microbiology, soil health management and agro-solar technologies.

Livestock Sector

- Activity 3.9 Introduction of beef type semen for insemination of meat breed cattle: *Import of semen required.*
- Activity 3.10 **Conserving and utilising farm animal genetic resources**: Setting up of a national conservation farm and use of embryo technology to conserve and protect local genetic resources.
- Activity 3.11 Use of improved reproductive technologies in livestock (e.g. MOET, AI): Providing Beef Cattle Breeder for AI and pregnancy diagnosis. Appropriate semen will be imported to be used on Beef Cattle and trial to be undertaken with embryo transfer. Extend use of AI for other species such as goat, cattle, ruminants and pigs.
- Activity 3.12 **Enhancing productivity through improved nutrition**: Develop feeding strategies using local resources and conservation strategies as well as introduce and evaluate new feeds and fodder for efficient feed utilisation.
- Activity 3.13 **Improving reproductive performance:** Develop capacity at the FAREI to undertake studies in reproductive management for improved productivity.

9.2 Strategic Orientation 2: Promoting Sustainable and Resilient Production

Climate change has a significant impact on the country's agricultural sector. Rising temperatures, changing rainfall patterns and more frequent extreme weather events such as cyclones, droughts, and floods have and will contribute to challenges faced by the agricultural sector in Mauritius. One of the biggest challenges facing Mauritian farmers is an increased unpredictability of weather patterns.

Traditional agricultural practices rely heavily on seasonal rainfall, which are becoming increasingly erratic due to climate change. This has led to reduced crop yields and, in some cases, complete crop failures. In addition, pests and diseases are also becoming more prevalent, posing additional challenges for farmers. For instance, in the livestock sector, Climate-Smart Livestock (CSL) solutions for land-based systems (i.e. systems depending mainly on grazing) can contribute to a reduction of Greenhouse Gas (GHG) emissions through improved livestock productivity, efficient use of natural resources, carbon sequestration and integration of livestock into the circular bio economy.

To address these challenges, the Government has implemented various measures to support farmers and the agricultural sector more broadly. The Government is also promoting crop and livestock production at household level. This includes providing subsidies and other financial assistance to farmers and promoting the use of climate-smart agriculture practices to enhance the resilience of the sector. The following actions are proposed:

9.2.1 Intervention 4: Sustainable Agricultural Practices

Food Crop Sector

Activity 4.1 **Supporting farmers through training and education**: Providing training and education to farmers on climate-smart agricultural practices, crop management and risk management strategies can help to build their resilience to the impacts of climate change.

- Activity 4.2 **Implementing a comprehensive waste management strategy**: Develop a waste management plan that includes recycling and composting of crop residues and livestock wastes and other waste management technologies.
- Activity 4.3 **Mapping of areas susceptible to climate change**: Conduct vulnerability assessments to identify the most vulnerable areas and crops in the agricultural sector due to the impacts of climate change.
- Activity 4.4 **Enhancing climate monitoring and early warning systems**: *System to be developed to provide timely and accurate weather forecasts to help farmers make informed decisions.*
- Activity 4.5 **Enhancing use of water saving technologies and water conservation**: *To promote implementation of climate-smart water conservation and irrigation systems.*
- Activity 4.6 **Supporting planters to enhance resilience:** This includes schemes with respect to sustainable production, productivity, crop losses, access to renewable energies and carbon sequestration.
- Activity 4.7 **Promoting sustainable crop production:** To promote organic farming (at Britannia and other sites including backyards), crop production in sheltered farms at Plaine Magnien and Ville Bague, among other sites.

Livestock Sector

- Activity 4.8 **Developing Livestock Zones:** *Identify and develop appropriate sites for livestock development.*
- Activity 4.9 **Establishing Waste Treatment**: Manure sanitisation by establishing a standard for treated manure; investigate potential of manure solarisation and manure solar dehydration as methods for sanitisation of cattle and poultry; testing the treated manure in crop plantations on FAREI Research station; sensitisation campaign; pelletizing of raw cattle manure; promoting small scale portable biogas units; electricity production from pig manure.
- Activity 4.10 **Setting up Silvopastoral (crop and livestock) system**: Agroforestry systems and water conservation techniques to ensure the sustainability of agricultural production in the face of changing climatic conditions.
- Activity 4.11 **Promoting rearing of locally adapted breeds**: providing support to farmers to encourage the use of locally adapted breeds for breeding and marketing.
- Activity 4.12 **Supporting farmers to enhance resilience:** This includes schemes with respect to sustainable production, productivity, access to renewable energies, carbon sequestration and animal losses.
- Activity 4.13 **Promoting production of small livestock (family production)**: This includes training and incentives for rearing of small livestock.
9.2.2 Intervention 5: Integrated Pest and Disease Management (IPDM)

IPDM is a comprehensive and sustainable approach to controlling pests and diseases that affect crops and agricultural systems. It comprises a range of strategies consisting of biological, physical, cultural, mechanical and chemical methods aimed at minimising the damage caused by pests and diseases while promoting environmentally responsible and economically viable solutions. The objective is to achieve enhanced productivity. It is recognised that in addition to existing risks, climate change will alter the range and prevalence of pests and diseases current challenges, as well as potentially increase the emergence of new risks. To mitigate these existing and future risks, IPDM should be actively promoted. The following actions are proposed:

Food Crop

- Activity 5.1 **Introducing and developing tolerant varieties:** *Conduct research on new varieties tolerant to key pests and diseases.*
- Activity 5.2 **Enhancing biological control:** *Identify, multiply and promote Biological Control Agents* (BCA) such as predators, parasites, beneficial microorganisms and use of sterile fruit flies.
- Activity 5.3 **Promoting agro-ecological practices:** Sensitise farmers on sustainable crop production practices such as the use of companion crops, trap crops, cover crops, water conservation, waste recycling, intercropping and crop rotation.
- Activity 5.4 **Promoting seed and soil health:** *Conduct research on pest and disease-free planting materials/seeds and soil health improvement techniques.*

Livestock

- Activity 5.5 **Introducing tolerant breeds**: Import of breeds that are resistant to climate change, diseases, etc.
- Activity 5.6 **Promoting use of local genetic resources**: *Encourage the production of indigenous livestock species such as local goats, creole cattle and local chicken.*
- Activity 5.7 **Enhancing biosecurity**: Implement biosecurity measures for pests and diseases control.
- Activity 5.8 Introducing novel technologies for animal health and disease surveillance: *Procurement* of a Veterinary Ambulance.

9.2.3 Intervention 6: Promotion of biofarming

Bio farming encompasses a diverse range of sustainable agricultural systems such as organic farming, permaculture and natural farming, emphasising environmentally friendly practices and prioritising sustainability and ecological responsibility. The systems avoid synthetic chemicals and GMOs, and promote soil health, biodiversity, and sustainable pest and disease control. Each bio-farming approach offers unique benefits, collectively contributing to a more sustainable and environmentally friendly approach to agriculture. The following actions are proposed:

Food Crop & Livestock Sector

Activity 6.1 **Organising sensitisation campaigns on organic food consumption**: Sensitise the public on the importance of consuming organic food and valuing the difference.

- Activity 6.2 **Developing and implementing Bio-Production Protocols**: Develop protocols and build capacity of farmers, extension agents and agricultural experts on various bio-farming techniques, including organic farming, agroforestry, permaculture, and integrated pest and disease management.
- Activity 6.3 **Providing a framework for certification and marketing of organic products**: *Establish a legal framework for organic agriculture, set national organic standards and a national certification body, encourage the adoption of quality assurance system, create marketing programmes and labels for bio-farming products.*
- Activity 6.4 **Promoting natural and organic farming**: Sensitise and support farmers on natural/organic farming practices and their benefits and marketing of products.
- Activity 6.5 **Supporting farmers to access bio inputs**: Schemes to be implemented and reviewed (wherever required). This includes schemes with respect to access to bio inputs so as to reduce chemicals in the sector.

9.2.4: Intervention 7: Develop Smart and Innovative Production Systems

The use of modern farming techniques such as protected culture, hydroponics, aquaponics, and vertical farming will help mitigate the impact of such risks and contribute to reducing our dependence on food imports. By integrating advanced technologies and data-driven approaches, farmers can optimise their operations and respond to the challenges of a changing agricultural landscape. The following actions are proposed:

Food Crop Sector

- Activity 7.1 **Promoting decision-making tools:** Develop applications to guide farmers in pest and disease management, efficient fertiliser use, through the use of Internet of Things (IoT) devices to collect data on soil conditions, weather, crop health and other relevant parameters.
- Activity 7.2 **Promoting Precision Agriculture:** Adopt precision agriculture techniques to optimise land, water and agro-chemical use especially with the use of drones.
- Activity 7.3 Implementing Smart Irrigation Systems: Support farmers for the installation of automated water irrigation systems to optimise water delivery based on real-time weather and soil moisture data to conserve water and enhance crop productivity.
- Activity 7.4 **Promoting Automated Farming Systems:** Set up a demonstration farm for automated farming systems equipment.
- Activity 7.5 *Introducing Vertical and Controlled Environment Farming: Promote indoor farming and use of container chambers for commercial agriculture.*
- Activity 7.6 **Supporting planters for modernisation and innovation**: Schemes to be implemented and reviewed (wherever required). This includes schemes and procurement with respect to novel technologies such as AI, mechanisation, renewable technologies, post-harvest and processing.

Livestock Sector

Activity 7.7 **Promoting small ruminant and other small livestock farming including nonconventional species**: *Review of existing scheme to cater for small animals.*

- Activity 7.8 **Promoting adoption of climate smart practices**: Scheme to be developed in order to encourage climate smart practices.
- Activity 7.9 **Developing smart livestock systems (IoT based):** Application of Smart Livestock systems to farming practices at the FAREI research stations and the MAIFS breeding stations/model farms.
- Activity 7.10 **Promoting technologies for livestock waste management and waste recycling**: *Scheme to be developed in order to encourage the adoption of such practices by farmers.*
- Activity 7.11 **Developing bio-farming/livestock/crop integrated farming including silvopastoral systems**: Finalise the Petit Merlo Silvopastoral Project and encourage the setting up *similar systems in other regions.*
- Activity 7.12 **Supporting farmers for modernisation and innovation**: Schemes to be implemented and reviewed (wherever required). This includes schemes with respect to novel technologies, mechanisation, post-harvest and processing.

9.3 Strategic Orientation 3: Encouraging Entrepreneurship and Agro-Processing

Agriculture and Industry have long been tied in a symbiotic relationship that sees the former providing raw materials towards the creation of final products. Industry on the other hand, incorporates many agribusinesses into the numerous value and supply chains that drive it and this catalyses the growth and productivity of agriculture.

Agribusiness, particularly in the food sector, is rapidly consolidating and increasingly responding to the changing tastes and preferences of consumers. Consumers have higher incomes than ever before. They are focusing more on convenience, quality, variety, service, health and social consciousness. They are also faced with the increasing value of (and demands on) their time. In a nutshell, consumers are more value conscious than ever. This creates opportunities for producers to add value to their products.

Agricultural producers receive a much smaller portion of the consumer's spending than do food processors, especially processors who produce brand name items. Capturing those additional spending by adding value to farm or ranch products is a goal of many producers. This defines value-added activities and outlines the economic forces that make adding value important.

9.3.1 Intervention 8: Promote Value Addition

Value-added agriculture generally focuses on production or manufacturing processes, marketing or services that increase the value of primary agricultural commodities, perhaps by increasing appeal to the consumer and the consumer's willingness to pay a premium over similar but undifferentiated products. Usually, a value-added addition is a worthwhile investment because it generates higher return, allows penetration of a new, potentially high-value market, extends availability, or perhaps creates brand identity or develops brand loyalty. Several constraints have posed severe impediments to agricultural value chain development, including high production costs, inadequate storage capacities, misuse of agrochemicals, low level of mechanisation, labour shortage, reliance on traditional practices and lack of organisation of the sector. Addressing these challenges requires a multi-pronged approach, with actions and interventions at various levels of the agri-food supply chain such as resource management, production systems, marketing and regulatory framework. It is equally important to improve the quality of developed products. In this regard, the following actions are proposed:

Food Crop Sector

- Activity 8.1 Setting up a Special Agro-Industrial Processing Zone (SAPZ): Develop a strong, competitive and sustainable agro-processing industry which will play a vital role in the diversification of agriculture, reduction of processed food imports, reduction of perishable agricultural produce wastage and enhancing of food security and to set up sensory testing facilities in the agro-processing zone.
- Activity 8.2 **Undertaking a study to assess crops to be promoted for value addition**. *Identify new crops and opportunities for agro-processing.*
- Activity 8.3 **Promoting Contract farming:** *Establish a framework for the supply of agricultural produce for agro-processing.*
- Activity 8.4 Setting up a cold storage, grading and packing facilities at the National Wholesale Market (NWM): Assist operators to sell quality produce to processors.
- Activity 8.5 **Supporting planters to access value addition facilities**: Schemes to be implemented and reviewed (wherever required). This includes schemes for agro processors to access value addition facilities.

Livestock Sector

- Activity 8.6 **Undertaking a study on a value chain approach**: *Study to identify gaps and constraints along the value chain and make recommendations to address them.*
- Activity 8.7 **Developing capacity in value addition**: Equipment and infrastructure to be put in place in order to develop value added meat and dairy products, honey and its by-products. Expertise and technical assistance to be sought.
- Activity 8.8 **Developing a Residue Monitoring Plan**: Monitor the safety and quality of animal products for residues of antibiotics, heavy metals and pesticides so as to meet export standards and value addition.
- Activity 8.9 **Supporting farmers to access value addition facilities:** Schemes to be implemented and reviewed (wherever required). This includes schemes with respect to access to value addition facilities.

9.3.2 Intervention 9: Develop appropriate market structures

Our farmers need to be adequately linked to the market and for this purpose a dynamic market system is required to serve as a catalyst between the producer and the consumer and to ensure efficient and profitable product absorption. Continuous and consistent knowledge of market segments and outlets for specific commodities will be the key instrument for sale of produce and the country's agro-processing strategy. A functional and effective marketing mechanism should allow agricultural producers to plan investment according to consumers' needs in terms of quantity, quality and timing with respect to product demand. The following actions are proposed:

Food Crop & Livestock Sectors

Activity 9.1 **Setting up of Farmers Information and Delivery System (FIDS)**: Generate reliable and timely information on market and production trends; and train and sensitise operators and develop information-sharing platforms.

- Activity 9.2 **Developing Standards (grading) for fruits & vegetables**: Enhance marketing value and ensure the quality and safety of agro-food products.
- Activity 9.3 Upgrading of the SPS Information Management Portal: Integrate the Mauritius Central Automated Switch (MauCAS) in the SPS Portal for new modes of payment; to integrate the SPS Portal with the International Plant Protection Convention (IPPC) E-Phyto Hub in order to enable exchange of electronic PC between countries across the hub; and to implement digital signature on PC.
- Activity 9.4 **Developing Standards for food crops & livestock products:** *Establish meat grading system, quality and safety of agro-food products to enhance marketing value and ensure safe food.*
- Activity 9.5 **Promoting locally produced agricultural products through "Made in Moris" label.**
- Activity 9.6 **Setting up of an Online Market Platform**: Online System Bazar Moris to be promoted for the marketing of agricultural products through registration of sellers/buyers of agricultural products, input suppliers and service providers.
- Activity 9.7 **Support farmers to access marketing opportunities**: Schemes to be implemented and reviewed (wherever required). This includes schemes with respect to access to agro processors to access certification and marketing media, etc.

9.3.3 Intervention 10: Capacity Building and Professionalization of Operators & Institutions

Key to implementing sustainable agricultural development and transformation interventions at farm level lies in building farmer capacity. Capacity building embraces local farmer knowledge, builds local ownership of projects and strengthens farmers' resilience to improve the sustainability of agricultural development programmes. The role of extension in building farmer capacity goes beyond simply building capability to facilitating learning among all the stakeholders in the process thereby yielding favourable change in terms of skills, knowledge and access to and the opportunity to take command of and access to resources. The Farmers Training School at Wooton and its satellites are centres of excellence dispensing training and capacity building of farmers. In addition to the 25 Mauritius Qualifications Authority (MQA) approved courses dispensed by experienced and qualified trainers, training also focuses on challenges and constraints of farmers.

The objective is to strengthen the sector's base of social capital and provide producers with organisational frameworks through which they can develop commercial linkages and generally function in a more entrepreneurial manner. In a word, the overall objective of this intervention is to empower farmers in the sense of giving them greater ability to develop solutions on their own initiative and to access the specialised forms of technical assistance that they need on particular issues.

The engagement of women and youth is crucial to the sustainable development of the agricultural sector. The local population comprises a high proportion of young people and it is a challenge for those with limited education or training to find gainful employment. But few are willing to take up employment in agriculture, more so in livestock rearing or start up an activity of their own. It is important to devise an environment favouring the entrepreneurial approach to farming to rekindle the interest of some youth. Many Non-Governmental Organisations (NGOs) are also engaged in providing vocational training to youth who have failed in the primary school system, mostly coming from poor families. The following actions are proposed:

Food Crop & Livestock Sectors

- Activity 10.1 **Promoting entrepreneurship among youth, women and cooperatives**: With an ageing labour force, there is a need to encourage new entrants in the sector especially youth and women. In this context, the Ministry will work with relevant stakeholders and other Ministries such as the Ministry of Gender Equality and Family Welfare, the Ministry of Youth Empowerment, Sports and Recreation as well as the Ministry of Industrial Development, SMEs and Cooperatives to inculcate entrepreneurship skills for the targeted population.
- Activity 10.2 **Upgrading of the training infrastructure at Wooton**: Investment in infrastructure at the FAREI Training Centre and provision of new training courses in view of professionalising the farmers. Special attention will be given to the youth and newcomers. The professionalisation of farmers through skill development and financial assistance, inter alia, will enable optimisation of resources and the emergence of a new category of agripreneurs who will contribute to boosting the sector.
- Activity 10.3 *Establishing one additional incubation centre*: Development and testing of their protocols and product: Providing a supportive environment for entrepreneurs.
- Activity 10.4 **Training of farmers**: In line with the need to promote sustainable livestock practices, farmers will be trained on relevant issues such as Clean Green Ethical concept, solid waste management, etc. To enhance animal welfare, farmers will also be capacitated on basic health care.
- Activity 10.5 **Setting up a National Livestock Information system (NLIS):** The NLIS would set up the framework for animal identification and traceability to effectively monitor the national herd for better disease surveillance; greater efficiency of the artificial insemination programme; discourage livestock thefts, illegal slaughter and improve the administration of schemes to help livestock keepers.
- Activity 10.6 **Capacity building of beekeepers**: Train beekeepers on techniques of beekeeping including maintenance of bee colonies, management of pests and diseases, honey harvest and record keeping.

10.0 Proposed Amendments or Enactment of New Legislations

Food Crop Sector

10.1 Organic Agriculture Bill

An organic Agriculture legislation will be enacted to provide guidelines for the production of organic agricultural products. The objectives of this Bill would be as follows: to regulate and set the minimum requirements for the production, handling, processing and labelling of organic products; to set out the principles of organic production at farm, preparation, handling, storage, transport, labelling and marketing stages; to provide a list of permitted inputs for use as soil fertilisers and conditioners, plant pest and disease controls and food additives and processing aids; to protect consumers against deception and fraud in the marketplace and assure consumers that organically produced products meet a consistent standard; to protect producers of organic products against misrepresentation of other agricultural and processed products as being organic; to protect, conserve and improve biodiversity, conserve soil fertility and promote soil health; and to promote the production of quality organic products.

10.2 Gene Technology Bill

The Gene Technology Agriculture Bill aims to ensure a high level of protection for human, animal and environmental health by identifying and managing risks that gene technology and genetically modified techniques might pose. The framework regulates the release of genetically modified (GM) and genome edited (GEd) crops/produce into the environment and their use as, or in, food and feed. The Bill provides for measures to regulate the responsible planning, application, development, production, use and commercialisation of GM and GEd organisms and hence a national policy for GM.

10.3 Fertiliser Control Bill

The Chemical Fertilisers Control Act 1980 only caters for chemical fertilisers. Organic fertilisers and biofertilisers are not covered by the existing Act. The new Fertiliser Bill will provide strict rules on safety, quality and labelling requirements for all fertilisers at all stages from the production, import, packaging, storage and final disposal.

10.4 Regulations under the Plant Protection Act 2006

The Plant Protection Act 2006 aims at protecting our country's agricultural economy and natural resources from the introduction, establishment and spread of exotic pests. It helps towards plant health improvement and facilitates export certification of plant and plant products for safe global trade in agricultural commodities as per our obligations under international agreements. In order to properly implement this Act, new regulations will have to be prepared regarding the designation of points of entry for the importation of consignments; the issue of permits and certificates; the classification of pest; the declaration of a pest free area or an area of low pest prevalence; requirements for export of consignments; conditions under this Act; the procedures to be followed for lodging an appeal under this Act; fees payable in relation to inspections and services provided for under this Act; the implementation of phytosanitary measures under this Act; and the approval of quarantine stations, official analysts and laboratories or any person or institution from the public or private sector involved in phytosanitary matters.

10.5 Regulations under the Seeds Act (2013)

Relevant sections of the Seeds Act will be promulgated. By setting rules and standards of the market for production, processing, labelling and trade, including import and export of seed, the Seeds Act will ensure that only good quality seeds are available to planters. In addition, it creates a level playing field among seed dealers and producers and aims at protecting *bona fide* seed dealers and producers from competition by less scrupulous ones.

10.6 Regulations under the Use of Pesticides Act 2018

The Use of Pesticides Act 2018 makes provision to regulate, control and monitor the use of pesticides in or on any agricultural produce. Fruits and vegetables are regularly collected at farm gates, markets and supermarkets for analysis of pesticide residues. Amendments were brought to the Act in the Finance (Miscellaneous Provisions) Act to cater for imported agricultural produce besides local agricultural produce. A list of pesticides with corresponding permissible maximum residue levels for imported agricultural produce has been prepared. For proper implementation of the Act, regulations have to be made to cater for local and imported agricultural produce; use of pesticides in residential areas, along road sides, near water courses, near hospitals and schools; and procedure for taking and handling of samples for pesticide residue analysis.

Livestock Sector

10.7 The Animal Health, Veterinary Public Health and Livestock Production Bill

The provisions for the control of animal diseases are laid down in the Animal Diseases Act 1925. The Act also provides for the administrative procedures to be followed for the importation of animals into

Mauritius. It became necessary to propose new animal health legislation for several reasons: maintenance of the country's freedom from Office International des Epizooties (OIE) notifiable animal diseases and ensuring a high level of animal and public health are *sine qua non* conditions for the sustainable development of an agro industry; industries involved in animal sector, production of commodities of animal origin and trade in animal and products of animal origin have also undergone a lot of changes; attainment of self-sufficiency in livestock products such as milk and meat is an objective which has been set by Government; and imports of pets, wildlife and horses are on the rise. Horses are also exported to other countries and Mauritius has an important primate export sector. This Bill is intended to create a strong animal health framework for the animal sector for the sustainable development of the livestock sector.

11.0 Institutional & Policy Reforms

There is a need to create an enabling environment for the agricultural sector development with a sound governance system. The strategy is focusing on strengthening the governance, regulatory and institutional capacity of the agricultural sector by enforcing and strengthening the related policies, laws, human resources capacity and promoting synergies and harmonisation between institutions and with international organisations.

11.1 Operationalisation of the National Wholesale Market

Government has set up the national wholesale market of around 8,000 square metres at Five Ways, Wooton. This new infrastructure, a first for Mauritius, has improved the handling of fruits and vegetables from both post-harvest and onward sales. It will be fully compliant with existing relevant legislations and agricultural and food standards. The objectives of the National Wholesale Market are to: (a) set up the necessary infrastructure for the handling of fruits and vegetables, post-harvest, for onward sale, fully compliant with all existing relevant legislation and agricultural and food standards; (b) create a modern market yard facility with all relevant procurement, marketing and support networks; (c) establish a fair and transparent mechanism for price setting so that planters can get the best price for their produce; (d) provide a modern and accessible market information system on the evolution in the price of the produce concerned; (e) offer a modern, fair and transparent marketing infrastructure fully compliant with the Food Act and other agricultural standards for the community; and (f) be commercially oriented and sustainable.

11.2 Establish and enhance collaboration with local and international institutions and partner countries

Ongoing collaboration with international research institutions and organisations such as FAO and other UN agencies, the Chinese Academy of Tropical Agricultural Sciences (CATAS), the *Centre de Coopération Internationale en Recherche Agronomique pour le Développement* (CIRAD) and the International Atomic Energy Agency (IAEA) to, *inter alia*, strengthen research capacities, exchange of germplasm and networking has been very successful. Further collaboration through signing of Memoranda of Understanding (MoUs) would be required with other partner countries and institutions such as the Indian Council of Agricultural Research (ICAR) and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). Locally, such collaboration would be enhanced among institutions and organisations (both public and private) for a more collaborative and effective partnership (e.g. UoM, MRIC, UDM). In the livestock sector, such MoUs on SPS will help the country diversify its source of feed and parent and grand-parent stock. Such agreements will help to contract production of selected varieties and elite seeds in the food crop sector.

11.3 Land tenure reform

The land tenure system is sometimes perceived as having held back past efforts to develop the sector, and, therefore, reforming it is a national priority that can directly facilitate faster agricultural development. For instance, in the livestock sector, it is imperative to identify livestock prone development areas and promote the allocation of such land to eligible farmers. It would be appropriate to set up a Centralised Agricultural Land Management system with multi-stakeholder participation of several departments/organisations such as the Land Use Division, Landscope Mauritius as well as the Ministry of Housing and Land Use Planning so that farmers may access a data bank repository of private and State Lands. Overall, it is advisable to have a national land policy such that agricultural land is preserved to ensure national food security, hence, our food sovereignty.

11.4 Reform on Water Policy

Adverse climatic conditions and water stress over the past years have severely constrained agricultural development with a regression in agricultural activities. With the decrease in precipitation already observed in Mauritius, coupled with increasing water demand from other sectors, ensuring water supply to agriculture is a challenge and a potential threat to our food security. The changing rainfall pattern and rise in temperature, some of the adverse effects of climate change are putting even more pressure on the use of irrigation water. Hence, there is an urgent need to promote water saving technologies among planters so as to improve water use efficiency. The re-use of treated effluent and a review water rights legislation are needed to ensure equitable access to water resources especially during critical food shortages.

11.5 Formulation of a National Livestock Breeding Policy

A breeding policy is a guideline to indicate what breed and breed combination is the most suitable agroclimatic condition of the country. It should be followed to get the optimum output from the local herd and to conserve the native breeds present. In the absence of a proper breeding policy, breeding programmes have been conducted haphazardly leading to wastage of key resources and preventing the achievement of food security goals. A national livestock breeding policy should be prepared in consultation with all stakeholders under the new "Animal Health, Veterinary Public Health and Livestock Production Bill" and must include a section on conservation and utilisation of local Farm Animal Genetic Resources as per the undertaking of the Government (Convention of Biological Diversity, Goal 2).

11.6 Review of National Invasive Species Committee

The composition of the National Invasive Species Committee would need to be reviewed to include stakeholders from animal production and livestock research sections with a view to ensuring that required planting materials to be used as fodder are available to the farming community. The importation of planting materials for research purposes should be considered a priority.

11.7 Setting up of Farmers Welfare Centre

A Farmers Welfare Centre will be set up to provide the SFWF and other stakeholders including farmers, agricultural departments and so on, to organise workshops, meetings and symposium within a modern conference centre. The facility will also include a farmer's recreational centre where farmers and their families will gather to enjoy leisure facilities that will be put at their disposal by the Fund.

11.8 Compliance with the FAO/WHO Codex Alimentarius Commission

Through the FAO/WHO Codex Alimentarius Commission (CAC), Governments of Member State define the international food standards using scientific information, which serve as the basis for ensuring public health goals such as food safety and nutrition. It is difficult to imagine the food trade without standards. Food standards allow consumers to have trust in the safety, quality and authenticity of the food they are eating from farm to fork. Moreover, safe food trade contributes towards the provision of adequate, safe and nutritious food for the increasing global population. Access to information on international food standards should be enhanced. It is important to review national codex structures and harmonisation processes locally to set Codex-based standards for locally produced foods and to facilitate compliance of locally produced foods with international norms.

11.9 Compliance with International Standards for Phytosanitary Measures (ISPMs)

The NPPO complies with the International Plant Protection Convention (IPPC) which enables more inclusive and efficient agricultural and food systems at local, national and international levels. The Convention is recognized by the World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement). The standards of the IPPC are used by Mauritius as phytosanitary measures for trade with other trading countries to achieve greater efficiency in resource use and avoid hidden trade barriers.

11.10 Reducing food loss and food waste

Food loss and waste increase the risk of food insecurity and impact the environment. It occurs at various stages of the food supply chain including production, distribution, consumption and disposal. In Mauritius, this issue represents a significant challenge, affecting both the economy and the environment. In view thereof, a multipronged approach is proposed to boost local production and reduce food waste. Reducing food waste in Mauritius requires a holistic approach that encompasses policy changes, public awareness campaigns and targeted projects. By identifying areas of food waste, linking efforts to climate and nature conservation, enacting legislation and implementing projects, Mauritius can significantly reduce food waste, minimise its environmental impact and foster a more sustainable food system.

11.11 Review of Schemes

In order to make schemes more effective, there is a need for a review of schemes by addressing issues related to eligibility criteria to enlarge the pool of beneficiaries (including the corporate sector) and reducing administrative procedures (e.g. documentation and processing time). Some of the new incentives that may be proposed are as follows: devising schemes to provide access to entrepreneurs to testing services to ensure the microbiological and chemical quality of products, including shelf-life evaluation; testing vouchers to entrepreneurs who wish to improve the quality of products through microbiological and sensory tests; setting up of schemes to enable eligible farmers to be subsidised for the costs of putting in place necessary infrastructure for livestock production including amenities such as water and electricity, and scheme to enable farmers to accede to renewable energies and carbon credit. Ultimately, there will be a need to put in place the digitalisation of schemes such that the process is conducted online as well as is time-bound and applicants can trace the status of their application at any point in time.

11.12 Review of Agricultural Services

The Agricultural Services should have a regulatory role for the agricultural sector through an appropriate framework. This will be achieved through the enactment and implementation of legislative packages in respect of animal health, plant health, quality and safety of agricultural produce, seed quality, agricultural inputs (such as pesticides and fertilisers) and provision of adequate resources (human and financial).

Review of Veterinary Services

Service Provision

For the past decades, the DVS has been providing services related to treatment of diseases rather than supporting productive health such as general health of the whole herd when requested by the owner, deworming, treatment of external parasites, artificial insemination of dairy cattle, hoof trimming, dehorning and other veterinary interventions related to productive health. It is, therefore, necessary to upgrade the Veterinary Services. Some of the measures are as follows modernisation of the ambulatory service through the introduction of veterinary ambulances and introduction of the drug voucher system through which farmers shall be provided with vouchers for certain veterinary drugs (as prescribed by the veterinary officer). The Veterinary Services shall operate as per the performance, vision and strategy of the World Organization for Animal Health which lays down the role, duties and responsibilities of the national veterinary service of a country.

Regulatory Role

There is a need to address the issues related to Animal health, Veterinary Public Health and Animal Welfare in the animal sector. One of the priorities is to extend the diseases freedom status to other diseases such as HPAI, Rabies, AHS and other diseases. Currently, Mauritius is officially recognised to be free from Peste des Petit Ruminants (PPR) only. The objective is to declare Mauritius free from other diseases such as HPAI, Rabies, AHS and other priority diseases. The infrastructure aspect concerns the upgrading of the Animal Health Laboratory to meet relevant international requirement and ISO standards⁶. Disease surveillance especially zoonotic disease and early disease detection will be reinforced. This will be extended to wildlife, feral animals, dog, horse, non-human primates and bees. Vector surveillance and bee health will also be reinforced. Capacity building of veterinary officers in veterinary diagnostic methods, laboratory quality management systems, HACCP, epidemiology, virology, microbiology, parasitology, veterinary pharmacology, veterinary entomology, border inspection and veterinary obstetrics and gynaecology will be required. Antimicrobial resistance surveillance strategies will be put in place as well as a residue monitoring plan. Monitoring of antimicrobial resistance in products of animal origin will be carried out. Implementation of an emergency practice and contingency plans for specific diseases will be put in place and relevant services provided. Biosecurity and biosafety would be addressed to ensure that the requirements laid down in contingency and emergency preparedness plans are being satisfied. The incineration service would be extended to livestock breeders. Artificial insemination and breeding improvement being an important component for livestock development, the Al service which is being provided to cattle breeders would be extended to other species such as goats, sheep and pigs.

11.13 Slaughter

The operation of private slaughterhouses to respond to breeding specificities of the specific animals such as deer and which may also cater for the slaughter of small ruminants. There will be a need to properly enforce illegal slaughtering of animals and the sale of meat under the NAPRO Act. An inter-ministerial team to be set up comprising the NAPRO, the Ministry of Health and Wellness, the Mauritius Police Force (MPF), local authorities and MMA. The NAPRO Act to be reviewed in order to ensure penalties/sanctions for illegal meat slaughtered, disposal of seized products and illegal sale.

⁶ See Activity 1.16

11.14 Labour Market Reforms

As from July 2023, the application for a Permission in Principle (PiP), usually known as Quota, is no longer required for this sector and the ratio of local to foreign labour in the agricultural sector has been waived. Since March 2023 and January 2024, application for a new work permit and renewal of a work permit respectively, is made online through the National Electronic Licensing System (NELS). A silent is consent principle has been introduced since October 2023 for new work permit applications, whereby a permit is deemed to have been granted if the application is not determined within 30 working days from the date of complete application. New Regulations are being made by the Ministry of Labour, Human Resource Development and Training under the Private Recruitment Agency Act, which has been proclaimed on 16 February 2024, for the registration of Job Contractors for the agricultural sector. Since March 2023, Employment Information Centre (EIC) reports are no longer required at the time of application for work permit to foreign workers, including those employed in the agricultural sector.

11.15 Improve access to credit

Access to credit can enable farmers to invest in inputs and other agricultural practices that can improve their yields. The farming and agricultural sector continues to experience financial pressures. Agricultural charges remain an important form of security available to banks when lending to the agricultural sector, and although the Development Bank Mauritius (DBM) Ltd offers a series of agriculture loans to farmers and agripreneurs to make the leap into the world of farming in support of a thriving agricultural economy, it has been observed that farmers are reluctant to take agricultural loans with floating charges, particularly if the assets they are pledging as collateral are worth significantly more than the loan amount. To stimulate economic growth and encourage investment in the agricultural sector, fixed charge loans (with security equivalent to the amount of loan taken) can provide farmers with the financing they need to make investments in their farms, such as buying new equipment or expanding their operations. This can help to increase agricultural productivity and profitability. The administrative procedures regarding loan application should be simplified.

11.16 National coordination mechanism

Establishing a national coordination mechanism for the agricultural sector can facilitate collaboration between the MAIFS and other Ministries and bodies which may not regularly exchange information and implement activities jointly. Inter-departmental and inter-institutional coordination is essential to ensure a clear division of roles and responsibilities and identify areas for collaboration in the implementation of national agricultural sector strategies. Key Ministries and institutions which should be engaged in coordination include those responsible for women/gender and community affairs/ local government.

11.17 Organic Office

An Organic Agriculture Office will be set up to ensure the implementation of the Organic Agriculture Bill. The office will be mandated to regulate and set the minimum requirements for, the production, handling, processing and labelling of organic products; to set out the principles of organic production at farm, preparation, handling, storage, transport, labelling and marketing stages; to provide an indication of permitted inputs for soil fertilising and conditioning, plant pest and disease control, and food additives and processing aids; to protect consumers against deception and fraud in the marketplace, and assure consumers that organically produced products meet a consistent standard; and to protect producers of organic products against misrepresentation of other agricultural and processed products as being organic.

11.18 Policy on Use of Pesticides

The use of pesticides in agriculture has long been a practice aimed at protecting crops from pests and diseases as well as maximising yields. However, the indiscriminate and excessive use of pesticides have

detrimental effects on the environment, human health and overall sustainability. Mauritius, with its diverse agricultural landscape and unique ecological balance, recognises the need to transition towards more sustainable agricultural practices that minimise the reliance on pesticides. A Pesticide Regulatory Office (PRO) has already been set up for enforcement of the Use of Pesticides Act. The Act endeavours to control, monitor and regulate the use of pesticides on agricultural produce. The PRO however, needs to be capacitated for proper enforcement of the Act namely with regard to the prosecution for offences under this Act.

11.19 Digitalisation of Agricultural Institutions

The digitalisation of agricultural institutions plays a crucial role in modernising and improving the efficiency, sustainability and profitability of the agricultural sector. It can lead to a more efficient, resilient and environmentally friendly agricultural sector, benefiting both farmers and society as a whole. Services, such as lease of agricultural land, permits issued, real time data on import of agricultural commodities, information on market through the NWM, administration of schemes among others, can also be made accessible through the Digitalisation Integrated System.

11.20 Tea Sector

There is the need to create a modern and dynamic institution with a new legal and regulatory framework. Digital innovations and data to be an integral part of the solutions for an innovative and inclusive tea business model to increase productivity, efficiency, sustainability and tea quality. At the same time, mechanisation and modern production technology adapted to the Mauritian tea field to improve the yield of green leaf should be developed. As a result of the labour shortage and ageing labour force, it is important to incentivise youth to join the tea industry. Further development in terms of product diversification should be considered as well as promotion and branding initiatives to be an integral part of the revival initiatives.

11.21 Thefts

The MAIFS is collaborating with the MPF to develop strategies to combat agricultural thefts e.g. through police patrols, roadblocks and sensitisation meetings. The main purpose of this measure is to assist farmers to protect their fields and ensure their own security. It is proposed to assist farmers in cracking down thefts of agricultural produce and equipment by providing a VAT Refund on surveillance systems and promoting hotspot to farmers on field to ensure effective performance of their cameras connected to their mobile phones for real time interventions.

12.0 International & Regional Aspects

12.1 Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs), also known as the Global Goals, are a universal call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. Since the SDGs came into effect in January 2016, Governments, businesses and communities across the world have committed to throwing their weight behind meeting the Global Goals.

More than any other sector, agriculture is the common thread which holds the 17 SDGs together. Investing in the agricultural sector can address not only hunger and malnutrition but also other challenges including poverty, water and energy use, biodiversity and climate crises, unsustainable production and consumption. It cuts across various goals such as SDG 1 for contribution to improved livelihoods through poverty reduction, SDG 2 for contribution to improved nutrition, food security and sustainable agriculture, SDG 8 for youth integration and empowerment with a focus on gender balance, SDG 12 for promoting more efficient use of natural resources through nutrient cycling, reduced needs for chemicals for better animal welfare, SDG 13 for climate change mitigation, increased carbon sequestration, reduced GHG emissions and reduce the vulnerability of livestock to climate change through sustained forage availability and SDG 15 for improving terrestrial biodiversity, preserving forests and ecosystem.

In alignment with the SDG Goal 2, this Strategic Plan sets out actions and projects to achieve the set targets under Goal 2. Indicators relating to annual total food crop production per unit area; proportion of agricultural area under productive and sustainable agriculture; number of plant and animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities as well as the share of agriculture on Government expenditure are being used.

12.2 Comprehensive Africa Agriculture Development Programme (CAADP)

The Comprehensive Africa Agriculture Development Programme (CAADP) is the agricultural programme of the New Partnership for Africa's Development, an African Union (AU) programme. Established by the AU Assembly in 2003, the CAADP focuses on improving food security, nutrition and increasing incomes in Africa's largely farming-based economies. It aims to achieve this by raising agricultural productivity and increasing public investment in agriculture. The CAADP is an Agenda 2063 continental initiative that aims to help African countries eliminate hunger and reduce poverty by raising economic growth through agriculture-led development.

Through the CAADP, African Governments agreed to allocate at least 10% of national budgets to agriculture and rural development and to achieve agricultural growth rates of at least 6% per annum. Underlying these investment commitments are targets for reducing poverty and malnutrition, increasing productivity and farm incomes, and improving the sustainability of agricultural production and use of natural resources. The CAADP also supports countries to enhance resilience to climate variability through the development of disaster preparedness policies and strategies, early warning response systems and social safety nets. The four priority areas under CAADP are as follows: extending the area under sustainable land management and reliable water control systems; improving rural infrastructure and trade-related capacities for market access; increasing food supply; reducing hunger and improving responses to food emergency crises and improving agriculture research, technology dissemination and adoption. These issues are fully embedded into the domestic national strategy of the agricultural sector and the associated National Agricultural Investment Programme (NAIP) linked with the CAADP is integrated into this document. The Strategic Plan endeavours to meet the CAADP targets set out by the African Union in the Malabo Declaration.

12.3 SADC Fertiliser Framework

The Fertiliser Technical Cooperation Programme on Harmonized Fertiliser Regulatory Framework (HFRF) seeks to enhance integration and improve access to regional fertiliser markets. This regional initiative is being implemented in the 16 SADC Member States. The disharmonious policies, standards, procedures and regulations serve as an impediment to regional trade. The SADC Secretariat has partnered with the FAO and the AFAP to develop the requisite background documents for the development of the Regional Harmonized Fertiliser Regulatory Framework and to develop a programme that will prepare the Member States for its domestication. The project, therefore, helps to amalgamate ongoing efforts on fertiliser quality control and enforcement of standards across the region. This will lead farms to have access to good quality fertilisers at a reasonable price and eventually improve agricultural productivity.

12.4 SADC Plant Genetic Resources Centre (SPGRC)

The SADC PGR network has been set up to conserve and preserve the genetic diversity and viability of local plant germplasm. The regional cooperation of SADC countries aims to promote conservation and the sustainable use of International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) including accession multiplication and regeneration, characterisation and cataloguing and documentation information through the online SPGRC Documentation Information System (SDIS). As other member States of SADC, our accessions are conserved at the SPGRC as duplicate and cannot be utilised for any commercial purposes as Mauritius is the sole owner of all the accessions and their duplicates as well as responsible for maintaining the sovereignty on these PGR accessions. Mauritius does not have a specific legal framework or Government agency responsible for regulating access to and sharing of benefit arising from the use of PGRFA, domestic access to germplasm conserved ex-situ in gene banks and collections is mainly conducted freely based on mutual agreement between institutions. Mauritius is in urgent need of support in building adequate technical and legal capacity to identify, inventories, and notify its collections so that the accessions can be easily accessed. International cooperation and facilitated exchange of PGRFA and associated information through the Multilateral System (MLS) are essential for food security, especially in the country's mitigation and adaptation efforts against climate change and genetic erosion.

12.5 Southern African Development Community (SADC) Harmonised Seed Regulatory System

The SADC has set up a Harmonised Seed Regulatory System with the objective of facilitating enhanced seed trade in the region and to increase the availability of high-quality seed to farmers through rationalising and removing national regulatory barriers for the movement of seed across borders. Mauritius will sign the various agreements to enable its participation in the SADC Harmonised Seed Regulatory System which establishes commonly agreed regulatory standards, rules and procedures related to: (i) Seed Variety Release; (ii) Seed Certification and Quality Assurance; (iii) Quarantine and Phytosanitary Measures for Seed; and (vi) Plant Variety Protection.

12.6 World Organization for Animal Health (WOAH)

The WOAH is an intergovernmental organisation to fulfil six main missions: to ensure transparency on global animal diseases; to collect, analyse and disseminate veterinary scientific information; and to encourage international solidarity in the control of animal diseases. The Division of Veterinary services shall operate as per the recommendations of the WOAH.

12.7 Exploit Bilateral Regional Trade & Investment Agreements

As modern commerce increasingly takes place at a global and regional levels, businesses require greater certainty when operating within the international trading environment. International trade is an essential component of the development agenda to bolster growth. Trade can enhance productivity by promoting the efficient allocation of resources, increasing competition, fostering the adoption of more advanced technologies, allowing economies of scale and encouraging innovation. Trade can also be beneficial for consumers by increasing the variety of goods available to them at cheaper prices. Analysis conducted has proved that export gains can be higher for countries with smaller size, indicating that smaller countries can get a larger boost from trade agreements, possibly due to the greater opportunity to integrate the global and regional markets.

For a small country like Mauritius where trade stands at over 100% of its GDP, the conclusion of trade Agreements has become crucial to sustain its growth trajectory. Striking bilateral deals are a logical response to expand Market opportunities and to remain competitive. With only 1.3 million inhabitants, our market is too small to sustain our economy. Several trade and economic partnership agreements have been signed, namely, the COMESA Free Trade Area (FTA), the SADC Free Trade Area (FTA), the African Continental Free Trade Area (AfCFTA) Agreement, the African Growth and Opportunity Act (AGOA), the Generalised System of Preferences (GSP) scheme with several developed countries, the Mauritius-China FTA, the Mauritius-Turkey FTA and the Mauritius-Pakistan PTA. Negotiations are ongoing with other countries such as Indonesia and the United Arab Emirates (UAE). It should be noted that the governing body regulating global trade is the WTO. Mauritius has been a member of the WTO since its inception in 1995.

12.8 IOC - Regional Programme for Food Security and Nutrition (PRESAN)

The Regional Programme for Food Security and Nutrition (PRESAN) draws lessons from previous experiences in continental Africa and is integrated in the New Partnership for Africa's Development's (NEPAD) Comprehensive Africa Agriculture Development Programme. Its policy instruments – the facilities – have been designed to encourage public and private actors in different Member States to join their efforts with due respect to the principle of subsidiarity and thus within the limits of actions with regional focus. This action intends to contribute to the prevention of malnutrition in the Indian Ocean region through (i) the agro-ecological intensification of specific agricultural production and the revival of a certified and adapted seed sector, to fight against the main nutritional deficiencies (iron, vitamin A and energy) while promoting access to these foods for children, especially for those under five years of age; and (ii) build a regional environment conducive to the development of eco-responsible agriculture for the benefit of countries' food security and promoting food quality and safety.

The PRESAN aims to promote agricultural products of common interest in the region as well as increase productivity, output, competitiveness and trade between the islands and improve food and nutrition security for the Member States of the Indian Ocean Commission (IOC).

12.9 Indian Ocean Commission (IOC) Food-Sec Semence

The goal of the FOOD-SEC Semence project is to boost seed and seedling production chains for food crops in the countries and territories of this region (Madagascar's Highlands, Comoros, Mauritius and Seychelles). The project is part of the regional programme to support food and nutritional security in the Indian Ocean region (PRESAN).

On one side are two very poor countries, Madagascar and Comoros, whose primarily agricultural populations have fragile livelihoods that are vulnerable to climate change. Further east are Mauritius and Seychelles, which are more developed with smaller agricultural populations and high dependence on agricultural food imports, and with both aiming to sustainably develop this sector in order to reduce their dependence. The project is led by five development research organisations that are partners of the *Plateforme Regionale en Recherche Agronomique Pour Le Développement dans L'Océan-Indien* (PRéRAD-OI), which rely on local agricultural development partners as well as producers' associations that will act as relay points for the wide dissemination of improved plant material. The project is built around five activities: developing knowledge of local agro-economic situations and producers' expectations in terms of seed, building a catalogue of priority elite varieties in each of the target countries, producing improved stock plant material, testing this material in agroecological cropping systems, in field conditions on farms and developing national and regional action plans based on a critical synthesis of all actions conducted.

13.0 Gender Statement

The MAIFS is committed to gender equality and empowerment as part of its mission to enhance food security and sustainable agricultural development, protection of forests and conservation of biodiversity in the nation. It is actively implementing gender-responsive agricultural and related policies, strategies, and programs that ensure fairness in representation, participation, and benefits for both women and men. These initiatives address the specific needs of each gender, leading to governance and policy outcomes that are responsive to gender concerns, promote inclusivity, and contribute positively to socio-economic development.

The Ministry is also committed to provide equal opportunities for all to engage in decision-making processes, ensuring equitable access to employment, and creating economic opportunities that support decent livelihoods and advancement within the agricultural value chain. The Gender Statement reflects the Ministry's commitment to mainstream gender in the agricultural, forestry and biodiversity sectors through improvement in productivity and the provision of safe food. It aims to foster a more inclusive and productive agricultural sector that contributes to food security, conservation of biodiversity and ecosystems, poverty reduction, and hence increasing the sector's contribution to the economy.

14.0 Way Forward

Realising the vision of a profitable, socially responsible, and environmentally sensitive agricultural sector in Mauritius will require bold new approaches and sustained commitment from all stakeholders. The constraints on commercial agriculture are well-known. This Strategic Plan makes concrete recommendations on what needs to be done. The test now is the commitment from all partners to see it through.

The Government and its development partners will need to invest in infrastructure and improve the policy environment. The private sector will need to engage more effectively with public authorities and farmers' associations if it wants to build an integrated agriculture system in Mauritius. On both sides there must be improved trust and a more positive approach in working together towards a shared goal. Words will need to be backed up by concrete actions and substantial resource commitments.

The main risks and assumptions to the implementation of this strategy would be dependent on the economic situation prevailing in the country. This will impact on the mobilisation of adequate financial resources from the national budget, but also, from development partners and international programmes and donor agencies. In addition, several activities would also entail human resources to be provided. Cooperation and coordination among institutions within the MAIFS and cooperation and coordination

with other Ministries, and in particular with the Ministry of Environment, Solid Waste Management and Climate Change which is the national focal point for climate change is an important consideration. Climate changes have a direct and a significant impact on the agricultural sector as well as on natural resources such as forests, pastures, water and biodiversity. Eventually, the active participation of farmers would be key to the successful implementation of the strategy.

The MAIFS is the administration entrusted with the implementation and financing of this 2024-2030 Strategy. To that effect, a Steering Committee will be established for the follow-up and supervision of the strategy implementation. This Committee will be chaired by the Permanent Secretary of the MAIFS and include the heads of various organisations/departments that form part of the implementing bodies. A M & E structure shall ensure the proper and timely execution of the provisions of this Plan in order to achieve the expected outcomes within the scheduled time frame.

Annex 1: Costed Implementation Schedule for Activities

STRATEGIC ORIENTATIONS / INTERVENTION AREAS	IMPLEMENTING AGENCY	COLLABORATORS	BUDGET	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Activity 1.1: Upgrading of Tissue Culture Laboratories for propagation of planting materials	FAREI	MAIFS	10,000,000			5,000,000	2,000,000	2,000,000	1,000,000
	Agricultural Services (Horticulture Div)		10,000,000			2,500,000	2,500,000	2,500,000	2,500,000
Activity 1.2: Operating new Pest and Disease Diagnosis Infrastructure	FAREI	MAIFS	50,000,000	10,000,000	40,000,000				
	Agricultural Services (NPPO)		50,000,000	10,000,000	40,000,000				
Activity 1.3: Upgrading the Infrastructure at Crop Research Stations, Model Farms & Agro- Processing Resource Centre	FAREI	MAIFS	150,000,000	75,000,000	75,000,000				
Activity 1.4: Construction of new building for post-harvest unit and agro-processing incubation centre	FAREI	MAIFS	150,000,000			50,000,000	50,000,000	50,000,000	
Activity 1.5: Upgrading of	FAREI		30,000,000			15,000,000	15,000,000		
	Agricultural Services (Agricultural Chemistry Division, FSTD)		120,000,000	10,000,000	50,000,000	30,000,000	30,000,000		
Activity 1.6: Upgrading the seed production infrastructure and importation of disease-free planting materials	Agricultural Services (Horticulture Division & NPPO)	FAREI/ Private sector	25,000,000		10,000,000	10,000,000	5,000,000		
Activity 1.7: Setting up and upgrading of agroforestry sites	FAREI	Private Sector/Forestry Service	10,000,000	5,000,000	5,000,000				
	Agricultural Services (Entomology Division)		10,000,000	5,000,000	5,000,000				
Activity 1.8: Construction of a Plant Containment Facility at Réduit	Agricultural Services (NPPO)	MAIFS, FAREI, Forestry Service	85,000,000			5,000,000	80,000,000		
Activity 1.9: Upgrading the land drainage system on State land leased for food crop production	Agricultural Services (Land Use Division)	IOC/FAO	25,000,000			10,000,000	15,000,000		

STRATEGIC ORIENTATIONS / INTERVENTION AREAS	IMPLEMENTING AGENCY	COLLABORATORS	BUDGET	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Activity 1.10: Installing photovoltaic panels	FAREI	MAIFS	30,000,000					10,000,000	10,000,000
Activity 1.11: Upgrading and setting up of Research Infrastructure	FAREI	MAIFS	100,000,000			50,000,000	50,000,000		
Activity 1.12: Consolidating Livestock Breeding Centres	Agricultural Services (APD)	MAIFS	210,000,000	18,000,000	48,000,000	65,000,000	52,000,000	27,000,000	
Activity 1.13: Setting up of a Goat Reproduction Farm	Agricultural Services (APD)	MAIFS	77,000,000	1,000.000	1,000,000	10,000,000	13,000,000	20,000,000	32,000,000
Activity 1.14: Upgrading of incinerator Facility	Agricultural Services (LVD)	MAIFS	18,000,000		6,000,000	4,000,000	3,000,000	3,000,000	2,000,000
Activity 1.15: Rehabilitation of Central Abattoir	MMA	Agricultural Services (LVD)	120,000,000	10,000,000	37,000,000	25,000,000	33,000,000	15,000,000	
Activity 1.16 Creating and proclaiming of Bee Zones and afforestation	Agricultural Services (Entomology Division)	Forestry Service	15,000,000		3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Activity 1.17 Upgrading the Animal Health Laboratory	Agricultural Services (LVD)		50,000,000		30,000,000	20,000,000			
Activity 1.18 Setting up of Quarantine	Agricultural Services (LVD)		55,000,000	15,000,000	20,000,000	20,000,000			
Activity 1.19 Setting up of a Pig AI Unit	Agricultural Services (APD)	MAIFS, Agricultural Services (LVD)	50,000,000				10,000,000	20,000,000	20,000,000
Activity 2.1: Promoting seed entrepreneurship	FAREI	MAIFS, Agricultural Services (Entomology	15,000,000	10,000,000	5,000,000				
	Agricultural Services (NPVSO)		15,000,000		5,000,000	5,000,000	5,000,000		
Activity 2.2: Establishing a database of seed varieties	Agricultural Services (NPVSO)		2,000,000			1,000,000	1,000,000		
Activity 2.3: Strengthening the seed certification system and quality control	Agricultural Services (NPVSO)	Made in MORIS	1,000,000				500,000	250,000	250,000
Activity 2.4: Supporting planters to	FAREI	Agricultural Services	12,000,000	3,000,000	3,000,000	3,000,000	3,000,000		
accede planting materials and inputs (Schemes)	SFWF	(Horticulture Division)	798,600,000	133,100,000	133,100,000	133,100,000	133,100,000	133,100,000	133,100,000
Activity 2.5: Increasing Local Seed Production	Agricultural Services (Horticulture Division)		53,000,000	3,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Activity 2.6: Promoting Fodder Production and Conservation	FAREI	Agricultural Services (LVD)	16,500,000	3,500,000	3,500,000	3,500,000	3,000,000	1,000,000	1,000,000

STRATEGIC ORIENTATIONS / INTERVENTION AREAS	IMPLEMENTING AGENCY	COLLABORATORS	BUDGET	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Activity 2.7: Promoting access to inputs for livestock production	SFWF	Agricultural Services (LVD), FAREI	363,000,000	60,500,000	60,500,000	60,500,000	60,500,000	60,500,000	60,500,000
Activity 2.8: Facilitating the importation of breeding stock for direct distribution to farmers	Agricultural Services (APD)	MMA, Agricultural Services (LVD)	90,000,000	10,000,000	20,000,000	20,000,000	20,000,000	20,000,000	
Activity 3.1: Developing and promoting new production technologies	FAREI	Agricultural Services (Crop Sector)	10,000,000	2,000,000	2,000,000	2,000,000	2,000,000	1,000,000	1,000,000
	Agricultural Services (Horticulture Div)		5,000,000		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Activity 3.2: Introduction and development of new crop varieties	FAREI	Agricultural Services (Crop Sector)	20,000,000	3,000,000	3,000,000	3,500,000	3,500,000	3500,000	3,500,000
Activity 3.3: Conserving and	FAREI		5,000,000		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
promoting under-utilized crop species	Agricultural Services (Agronomy Division)		2,000,000		500,000	500,000	500,000	250,000	250,000
Activity 3.4: Developing and promoting eco-friendly fertilizer packages for crop production	FAREI		10,000,000	2,000,000	2,000,000	3,000,000	3,000,000		
Activity 3.5: Developing a soil	FAREI		20,000,000	3,000,000	3,500,000	5,000,000	2,500,000	3,000,000	3,000,000
suitability map	Agricultural Services (Land Use Division)	MAIFS, Agricultural Services (ACD)	25,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	
Activity 3.6: Introducing, developing	FAREI		9,000,000		2,500,000	2,500,000	2,000,000	1,000,000	1,000,000
and promoting efficient technologies	Agricultural Services (Horticulture Division)		30,000,000			7,500,000	7,500,000	7,500,000	7,500,000
Activity 3.7: Developing techniques for mass multiplication by conventional and tissue culture	FAREI		7,000,000			2,000,000	2,000,000	2,000,000	1,000,000
techniques	Agricultural Services (Horticulture Division)		5,000,000			2,500,000	2,500,000		
Activity 3.8: Enhancing capacity	FAREI		10,000,000	2,000,000	2,000,000	2,000,000	2,000,000	1,000,000	1,000,000
building	Agricultural Services (Crop Sector)		8,000,000		2,000,000	2,000,000	2,000,000	1,000,000	1,000,000
Activity 3.9: Introduction of beef type semen for insemination of meat breed cattle	Agricultural Services (LVD)	FAREI	3,000,000	500,000	500,000	500,000	500,000	500,000	500,000
Activity 3.10: Conserving and utilizing farm animal genetic resources	FAREI	MAIFS	10,000,000			3,500,000	3,500,000	2,000,000	1,000,000

STRATEGIC ORIENTATIONS / INTERVENTION AREAS	IMPLEMENTING AGENCY	COLLABORATORS	BUDGET	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Activity 3.11: Use of improved reproductive technologies in livestock (e.g. MOET, AI)	Agricultural Services (LVD)	FAREI, Agricultural Services (APD)	5,000,000				3,000,000	1,000,000	1,000,000
Activity 3.12: Enhancing productivity through improved nutrition	FAREI		5,000,000	500,000	1,500,000	1,000,000	1,000,000	500,000	500,000
Activity 3.13: Improving reproductive performance	FAREI	Agricultural Services (LVD)	2,500,000		500,000	500,000	500,000	500,000	500,000
Activity 4.1: Supporting farmers	FAREI		5,000,000	1,000,000	1,000,000	1,000,000	1,000,000	500,000	500,000
through training and education	Agricultural Services (Horticulture Division)		10,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	
Activity 4.2: Implementing a comprehensive waste management	FAREI	Solid Waste Management Division	10,000,000	2,000,000	2,000,000	3,000,000	3,000,000		
strategy	Agricultural Services (Horticulture Division)		2,000,000		1,000,000	500,000	500,000		
Activity 4.3: Mapping of areas susceptible to climate change	FAREI	Land Drainage Authority	5,000,000	2,000,000	1,000,000	1,000,000	1,000,000		
	Agricultural Services (Land Use Division)		10,000,000			2,500,000	2,500,000	2,500,000	2,500,000
Activity 4.4: Enhancing climate	FAREI		10,000,000	3,000,000	3,000,000	2,000,000	2,000,000		
monitoring and early warning systems	Agricultural Services (NPPO, Horticulture & Entomology Division)		2,000,000			1,000,000	1,000,000		
Activity 4.5: Enhancing use of water saving technologies and water conservation	FAREI		6,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Activity 4.6: Supporting Planters to enhance resilience (Schemes)	SFWF	FAREI/Agricultural Services	720,000,000	120,000,000	120,000,000	120,000,000	120,000,000	120,000,000	120,000,000
Activity 4.7: Promoting sustainable crop production	FAREI	MAIFS	42,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000
Activity 4.8: Developing Livestock Zones	Agricultural Services (APD)	DBM, Land Use Division, Ministry of Housing, Agricultural Services (LVD), FAREI	200,000,000			50,000,000	50,000,000	50,000,000	50,000,000
Activity 4.9: Establishing Waste Treatment	FAREI	Agricultural Services (APD)	8,000,000		2,000,000	2,000,000	2,000,000	2,000,000	
Activity 4.10: Setting up Silvopastoral (crop and livestock) system	FAREI	Forestry Service/ Private Sector	7,500,000	500,000	2,000,000	2,000,000	1,000,000	1,000,000	1,000,000

STRATEGIC ORIENTATIONS / INTERVENTION AREAS	IMPLEMENTING AGENCY	COLLABORATORS	BUDGET	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Activity 4.11: Promoting rearing of locally adapted breeds	FAREI		10,000,000		2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Activity 4.12: Supporting farmers to	FAREI		55,000,000		11,000,000	11,000,000	11,000,000	11,000,000	11,000,000
enhance resilience	SFWF		6,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Activity 4.13: Promoting production of small livestock (family production)	FAREI		20,000,000		4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
Activity 5.1: Introducing and developing tolerant varieties	FAREI		5,000,000	1,000,000	1,000,000	1,000,000	1,000,000	500,000	500,000
Activity 5.2: Enhancing biological	FAREI		15,000,000	3,000,000	3,000,000	3,000,000	3,000,000	2,000,000	1,000,000
control	Agricultural Services (Entomology Division, NPPO)		25,000,000	2,000,000	5,000,000	5,000,000	5,000,000	5,000,000	3,000,000
Activity 5.3: Promoting agro- ecological practices	FAREI		8,000,000	1,000,000	1,000,000	1,500,000	1,500,000	1,500,000	1,500,000
Activity 5.4: Promoting seed and soil	FAREI		9,000,000	2,000,000	2,000,000	2,000,000	1,000,000	1,000,000	1,000,000
health	Agricultural Services (ACD, NPVSO)		15,000,000	3,000,000	4,000,000	4,000,000	4,000,000		
Activity 5.5: Introducing tolerant	FAREI		10,000,000		2,500,000	2,500,000	2,000,000	2,000,000	1,000,000
breeds	Agricultural Services (APD)		12,000,000			4,000,000	4,000,000	2,000,000	2,000,000
Activity 5.6: Promoting use of local	FAREI		4,000,000		1,000,000	1,000,000	1,000,000	500,000	500,000
genetic resources	Agricultural Services (LVD)		2,500,000		500,000	500,000	500,000	500,000	500,000
Activity 5.7: Enhancing biosecurity	Agricultural Services (LVD)		5,000,000		1,500,000	1,000,000	1,000,000	1,000,000	1,000,000
Activity 5.8 Introducing novel technologies for animal health and disease surveillance	Agricultural Services (LVD)		32,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	
Activity 6.1: Organising sensitization campaigns on organic food consumption	FAREI	Agricultural Services (National Organic Office - NOO)	5,000,000	500,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
	Agricultural Services (NOO)		3,500,000		1,000,000	1,000,000	500,000	500,000	500,000
Activity 6.2: Developing and	FAREI		6,000,000		1,500,000	1,500,000	1,000,000	1,000,000	1,000,000
Implementing Bio-Production Protocols	Agricultural Services (NOO)		4,000,000		1,000,000	1,000,000	1,000,000	500,000	500,000

STRATEGIC ORIENTATIONS / INTERVENTION AREAS	IMPLEMENTING AGENCY	COLLABORATORS	BUDGET	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Activity 6.3: Providing a framework for certification and marketing of organic products	Agricultural Services (NOO)		6,200,000	200,000	2,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Activity 6.4: Promoting natural and	FAREI		28,000,000	12,000,000	5,000,000	5,000,000	5,000,000	1,000,000	1,000,000
organic farming	Agricultural Services (NOO)		3,000,000				1,000,000	1,000,000	1,000,000
Activity 6.5 Supporting farmers to access bio inputs	SFWF		48,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000
Activity 7.1: Promoting decision- making tools	FAREI/ Agricultural Services (Horticulture Division)		9,000,000		3,000,000	3,000,000	3,000,000		
Activity 7.2: Promoting Precision	FAREI		10,000,000	2,000,000	2,000,000	2,000,000	1,000,000	2,000,000	1,000,000
Agriculture	Agricultural Services (Horticulture Division)		5,000,000		2,000,000	2,000,000	1,000,000		
Activity 7.3: Implementing Smart	FAREI		15,000,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Irrigation Systems	Agricultural Services (Horticulture Division)		10,000,000			3,000,000	3,000,000	3,000,000	1,000,000
Activity 7.4: Promoting Automated	FAREI		20,000,000		4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
Farming Systems	Agricultural Services (Agronomy & Horticulture Division)		10,000,000			2,000,000	4,000,000	4,000,000	
Activity 7.5: Introducing Vertical and	FAREI		15,000,000	10,000,000	3,000,000	1,000,000	1,000,000		
Controlled Environment Farming	Agricultural Services (Horticulture Division)		3,000,000			500,000	500,000	1,000,000	1,000,000
Activity 7.6: Supporting planters for	FAREI		151,500,000	7,500,000	36,000,000	36,000,000	36,000,000	36,000,000	
modernisation and innovation	SFWF	MAIFS/MCIA/ Agricultural Services / FAREI	100,000,000	20,000,000	20,000,000	20,000,000	20,000,000	10,000,000	10,000,000
Activity 7.7: Promoting small ruminant and other small livestock farming including non-conventional livestock species	FAREI		8,000,000		2,000,000	2,000,000	2,000,000	1,000,000	1,000,000
Activity 7.8: Promoting adoption of climate smart practices	FAREI		8,000,000		3,000,000	2,000,000	1,000,000	1,000,000	1,000,000
	FAREI		6,000,000		2,000,000	2,000,000	2,000,000		

STRATEGIC ORIENTATIONS / INTERVENTION AREAS	IMPLEMENTING AGENCY	COLLABORATORS	BUDGET	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Activity 7.9: Developing smart livestock systems (IoT based)	Agricultural Services (APD)		9,000,000		2,000,000	2,000,000	2,000,000	2,000,000	1,000,000
Activity 7.10: Promoting technologies for livestock waste management and waste recycling	FAREI		5,000,000		2,500,000	2,500,000			
Activity 7.11: Developing bio- farming/livestock/crop integrated farming including Silvopastoral systems	FAREI		2,000,000		1,000,000	500,000	500,000		
Activity 7.12: Supporting farmers for	SFWF		40,000,000		5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
modernization and innovation	FAREI		16,000,000	2,000,000	6,000,000	4,000,000	4,000,000		
Activity 8.1: Setting up a Special Agro-Industrial Processing Zone (SAPZ)	MAIFS	FAREI/Agricultural Services	500,000,000	50,000,000	50,000,000	100,000,000	100,000,000	100,000,000	100,000,000
Activity 8.2: Undertaking a study to	FAREI		1,000,000		1,000,000				
assess crops to be promoted for value addition									
Activity 8.3: Promoting contract farming	FAREI		7,000,000		4,000,000	3,000,000			
Activity 8.4: Setting up a cold storage, grading and packing facilities at the National Wholesale Market	AMB		300,000,000		150,000,000	150,000,000			
Activity 8.5: Supporting planters to access to value addition facilities	SFWF		16,000,000	1,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Activity 8.6: Undertaking a study on a value chain approach	FAREI		1,500,000		500,000	500,000	500,000		
Activity 8.7: Developing capacity in value addition	FAREI, Agricultural Services (FSTD)	MAIFS, Agricultural Services	6,000,000		1,500,000	1,500,000	1,000,000	1,000,000	1,000,000
Activity 8.8: Developing a Residue Monitoring Plan	Agricultural Services (Entomology Division & FSTD)		8,000,000		3,000,000	2,000,000	1,000,000	1,000,000	1,000,000
Activity 8.9: Supporting farmers to access to value addition facilities	SFWF		25,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	
Activity 9.1: Setting up of Farmers Information and Delivery System (FIDS)	FAREI		3,500,000	2,500,000	1,000,000				
	MSB	FAREI	2,000,000		500,000	500,000	500,000	500,000	

STRATEGIC ORIENTATIONS / INTERVENTION AREAS	IMPLEMENTING AGENCY	COLLABORATORS	BUDGET	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Activity 9.2: Developing standards (grading) for fruits & vegetables	Agricultural Services (NAPRO, FSTD)	FAREI	2,000,000			500,000	500,000	500,000	500,000
Activity 9.3: Upgrading of the SPS Information Management Portal	Agricultural Services (NPPO)	MAIFS	700,000	500,000	200,000				
Activity 9.4: Developing standards for	MSB	FAREI	2,000,000	500,000	500,000	500,000	500,000		
food crops & livestock products	Agricultural Services, FSTD	MSB	1,500,000		500,000	250,000	250,000	250,000	250,000
Activity 9.5: Promoting locally produced agricultural products through "made in Moris" label	FAREI		4,000,000		1,000,000	1,000,000	1,000,000	500,000	500,000
Activity 9.6: Setting up of an Online Market Platform	FAREI	UNDP	2,000,000		1,000,000	500,000	500,000		
Activity 9.7: Support farmers to access marketing opportunities	SFWF	MAIFS/Agricultural Services/FAREI	50,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	
Activity 10.1: Promoting entrepreneurship among youth, women and cooperatives	FAREI	SME Mauritius, NWEC	3,000,000	500,000	500,000	500,000	500,000	500,000	500,000
Activity 10.2: Upgrading of the training infrastructure at Wooton	FAREI		35,000,000	11,300,000	20,000,000	3,700,000			
Activity 10.3: Establishing one additional incubation centre	FAREI		9,000,000	1,000,000	2,000,000	2,000,000	2,000,000	2,000,000	
Activity 10.4: Training of farmers	FAREI		12,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
	Agricultural Services (LVD)		2,000,000			500,000	500,000	500,000	500,000
Activity 10.5: Setting up a National Livestock Information System	Agricultural Services (APD)		18,000,000	3,000,000	8,000,000	2,000,000	2,000,000	2,000,000	1,000,000
Activity 10.6: Capacity building of beekeepers	Agricultural Services (Entomology Division)		3,000,000	500,000	500,000	500,000	500,000	500,000	500,000

Annex 2: Monitoring & Evaluation Sheet 2024-2030

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI
Intervention 1: Develop Appropriate	Infrastructure	es – Food Crop		
Activity 1.1: Upgrading of Tissue Culture Laboratories for propagation of planting materials	Medium	FAREI	MAIFS	 Cryopreservation technology introduced Additional infrastructure set up New equipment procured at least 50% increase in tissue cultured plantlets 10% increase in annual production of planting materials by tissue culture
		Agricultural Services (Horticulture Division)		• Production of 10,000 tissue culture plantlets yearly by 2030
Activity 1.2: Operating new Pest and Disease Diagnosis Infrastructure	High	FAREI	MAIFS	• Assessment of Plant pathology laboratory of FAREI in view of relocation
		Agricultural Services (NPPO)		• NPPO equipped with molecular lab for identification of quarantine plant diseases
Activity 1.3: Upgrading the Infrastructure at Crop Research Stations, Model Farms & Agro- Processing Resource Centre	Medium	FAREI	MAIFS	• 4 Crop Research stations, 4 model farms upgraded
Activity 1.4: Construction of new building for post-harvest unit and agro-processing incubation centre	High	FAREI	MAIFS	• Existing Agro-Processing Incubator relocated in new building

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	КРІ
Activity 1.5: Upgrading of laboratories	High	FAREI		 3 laboratories upgraded: Number of additional equipment purchased upgraded for pesticides residue analysis, soil analysis and food/feed analysis
		Agricultural Services (Agricultural Chemistry Division, FSTD)		• 4 hydroponic farms set up for seed production
Activity 1.6: Upgrading the seed production infrastructure and importation of disease-free planting materials	High	Agricultural Services (Horticulture Division & NPPO)	FAREI/ Private sector	• 6 agricultural stations upgraded so as to increase production of planting materials by 10%
Activity 1.7: Setting up and upgrading of agroforestry sites	High	FAREI	Private Sector/Forestry Service	• One agroforestry model plot set up and 1 upgraded
		Agricultural Services (Entomology Division)		epgradod
Activity 1.8: Construction of a Plant Containment Facility at Réduit	High	Agricultural Services (NPPO)	MAIFS FAREI, Forestry	 Planting materials produced for agroforestry on private and state lands Containment facility set up for the safe introduction of biological agents and new planting materials so as to increase production
Activity 1.9: Upgrading the land drainage system on State land leased for food crop production	Medium	Agricultural Services (Land Use Division)	IOC/FAO	• Land drainage system on state lands leased to planters improved reducing crop damage by heavy rainfall

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI
Activity 1.10: Installing photovoltaic panels	Medium	FAREI	MAIFS	 Photo voltaic set up on 2 stations, and TC laboratory Photo voltaic set up on 4 stations, and Fruit fly rearing facility at Réduit
Intervention 1: Develop Appropriate	Infrastructure	es - Livestock Sector		
Activity 1.11: Upgrading and Setting up of Research Infrastructure	Medium	FAREI	MAIFS	 Belle Mare Research Station upgraded New site identified for relocation of some activities from CLRS
Activity 1.12: Consolidating Livestock Breeding Centres	Medium	Agricultural Services (APD)	MAIFS	 Cattle herd increased to 250 Sheep herd increased to 1000 Production Capacity of Broiler Chicks to 10,000 per week
Activity 1.13: Setting up of a Goat Reproduction Farm	High	Agricultural Services (APD)	MAIFS	Farm set up and operationalBreeding goats available for sale
Activity 1.14: Upgrading of incinerator Facility	Medium	Agricultural Services (LVD)	MAIFS	Incinerator facility upgraded
Activity 1.15: Rehabilitation of Central Abattoir	High	MMA	Agricultural Services (LVD)	• Rehabilitation of the Central Abattoir
Activity 1.16: Creating and proclaiming of Bee Zones and afforestation	High	Agricultural Services (Entomology Division)	Forestry Service	• Volume of honey produced
Activity 1.17: Upgrading the Animal Health Laboratory	High	Agricultural Services (LVD)		• Number of new animal disease diagnostic tests carried out

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMEN AGENC	NTING CY	COLLABORATORS	KPI
Activity 1.18: Setting up of Quarantine	High	Agricultural (LVD)	Services		• Increase surveillance at border and decrease the risk of introduction of new pests and disease
Activity 1.19: Setting up of a Pig AI Unit	High	Agricultural (APD)	Services	MAIFS, Agricultural Services (LVD)	• Increase in Pork production
Intervention 2: Improve Access to Inp	outs (Planting	Materials & Ac	cess to An	imal feed & fodder) – Fo	ood Crop
Activity 2.1: Promoting seed	High	FAREI		MAIFS, Agricultural	• 20 entrepreneurs involved in seed
entrepreneurship		Agricultural (NPVSO)	Services	Services (Entomology Division)	production
Activity 2.2: Establishing a database of seed varieties	Medium	Agricultural (NPVSO)	Services		• Database for seed varieties established by the NPVSO
Activity 2.3: Strengthening the seed certification system and quality control	High	Agricultural (NPVSO)	Services	Made in MORIS	 Seed certification system operational by the NPVSO Protocols Set up
Activity 2.4: Supporting planters to accede planting materials and inputs (Schemes)	High	FAREI		Agricultural Services (Horticulture Division)	• Existing revisited and new scheme set up and implemented
		SFWF			 Fertiliser Subsidy Scheme (FSS)- 7000 arpents for open field & 400,000 m2 for sheltered farming Bio Farming Support Scheme (BFSS)- 460 arpents Locally Produced Fertiliser Subsidy Scheme (LPFS) - 2000 arpents

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI	
Activity 2.5: Increasing Local Seed Production	High	Agricultural Services (Horticulture Division)		• Purchase of One seed dryer, mechanical seed extractor, multi crop thresher, gravity separator and agricultural wheeled tractor	
				• Setting up a sheltered green house for seed production	
Intervention 2: Improve Access to Inputs (Planting Materials & Access to Animal feed & fodder) – Livestock					
Activity 2.6: Promoting Fodder Production and Conservation	Medium	FAREI	Agricultural Services (LVD)	• 10 new fodder varieties (eg: Brachiaria, Giant Napier, Mulberry, etc. will be introduced and evaluated	
Activity 2.7: Promoting access to inputs for livestock production	High	SFWF	Agricultural Services (LVD), FAREI	• No of Breeders supported	
Activity 2.8: Facilitating the importation of breeding stock for direct distribution to farmers	High	Agricultural Services (APD)	MMA, Agricultural Services (LVD)	 Breeding Stocks will be imported as follows: Cattle: 200 per annum Goat: 500 per annum Sheep: 500 per annum Pig: 600 per annum 	
Intervention 3: Research & Development – Food Crop Sector					
Activity 3.1: Developing and promoting new production technologies	High	FAREI	Agricultural Services (Crop Sector)	 At least 5 vertical farming, container farming, aquaponics units established by 2030 Walk-in growing chamber for breeding set up Controlled environment greenhouse for hydroponics mounted 	

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI
				• Cool Bot technology for post-harvest losses implemented
				• Mauritian banana sector safeguarded through mass dissemination
				• Setting up of three green houses for the production of planting materials
		Agricultural Services (Horticulture Division)		• Seed production in controlled environment at Albion
Activity 3.2: Introduction and development of new crop varieties	Medium	FAREI	Agricultural Services (Crop Sector)	• 30 new crop varieties (eg: potatoes, onions, dates and figs, etc) introduced/ developed
Activity 3.3: Conserving and promoting under-utilized crop species	Medium	FAREI		• Germplasm plots for underutilized crop varieties setup and plants available for sale/ distribution (pigeon pea, zantac beans, etc)
		Agricultural Services (Agronomy Division)		• Some 700 plant genetic resources are preserved
Activity 3.4: Developing and promoting eco-friendly fertilizer packages for crop production	High	FAREI		• 4 fertilizer packages developed and promoted to growers
Activity 3.5: Developing a soil suitability map	Medium	FAREI	MAIFS Agricultural Services (ACD)	• Soil map production initiated and under progress
		Agricultural Services (Land Use Division)		• Soil analysis carried out to assist in development of soil map
Activity 3.6: Introducing, developing and promoting efficient technologies	High	FAREI		• Integrated plant nutrient system improved and promoted

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI
				• Solar energy for irrigation and product dehydration introduced
		Agricultural Services (Horticulture Division)		• Use of solar energy for cold rooms at Barkly
Activity 3.7: Developing techniques for mass multiplication by conventional and tissue culture techniques	High	FAREI		 New Protocols developed for Tissue Culture propagation and micro-grafting Routine use of bio-reactors for mass propagation Long term <i>in vitro</i> conservation of underutilised crops implemented
		Agricultural Services (Horticulture Division)		• Introduction of tissue cultured planting materials for mass multiplication upto 15,000 plants per year by 2030
Activity 3.8: Enhancing capacity building	High	FAREI		• Researchers trained in new technologies, peats and disease epidemiology, Insect taxonomy, entomopathogen, use of beneficial microorganism for disease management, Crop breeding, new crop production, climate smart technologies, precision agriculture, cryopreservation
		Agricultural Services (Crop Sector)		• Capacity building of officers on the use of nano technology in crop production and crop protection

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	КРІ	
Intervention 3: Research & Developm	nent – Livestoo	k Sector			
Activity 3.9: Introduction of beef type semen for insemination of meat breed cattle	High	Agricultural Services (LVD)	FAREI	• Increase beef production to 45T by 2030	
Activity 3.10: Conserving and utilizing farm animal genetic resources	Medium	FAREI	MAIFS	• Four In situ and ex situ units set up by 2030	
Activity 3.11: Use of improved reproductive technologies in livestock (e.g. MOET, AI)	Medium	Agricultural Services (LVD)	FAREI,	• AI used for four different animal species	
			Agricultural Services (APD)	• Embryo transfer used in breeding	
Activity 3.12: Enhancing productivity through improved nutrition	High	FAREI		• Recommendations on nutrition and feeding practices	
				• All farmers trained in animal nutrition and feeding strategies to increase livestock productivity by 2030	
				• One new feed will be introduced per year and evaluated	
Activity 3.13: Improving reproductive performance	High	FAREI	Agricultural Services (LVD)	• Reproductive performance improved	
Intervention 4: Sustainable Agricultural Practices – Food Crop Sector					
Activity 4.1: Supporting farmers through training and education	High	FAREI		 90 MQA approved training courses carried out per year on crop, livestock and agro- processing 1500 farmers/entrepreneurs trained per year 	

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI
		AgriculturalServices(Entomology&Horticulture Division)	FAREI	• 25 Planters per year trained in the production and processing of seeds
Activity 4.2: Implementing a comprehensive waste management strategy	Medium	FAREI	Solid Waste Management Division	 Waste management strategy developed and implemented (black soldier fly project, Use of hydrolytic microorganism, composting and bio-digestors)
		Agricultural Services (Horticulture Division)		• Introduction and use of micro-organisms for digesting agricultural waste
Activity 4.3: Mapping of areas susceptible to climate change	Medium	FAREI	Land Drainage Authority	• Development of Map initiated
		Agricultural Services (Land Use Division)		• Survey of 8000 arpents state land leased completed
Activity 4.4: Enhancing climate monitoring and early warning systems	Medium	FAREI/ Agricultural Services (NPPO, Horticulture & Entomology Division)		 Disease epidemiology system Established by 2025 Automatic weather station upgraded and information disseminated to farming community by 2026 Pests and disease forecasting using climatic data developed by 2030
Activity 4.5: Enhancing use of water saving technologies and water conservation	High	FAREI		 Novel water and energy technologies introduced/developed, evaluated and disseminated
Activity 4.6: Supporting Planters to enhance resilience (Schemes)	High	SFWF	FAREI/Agricultural Services	• Provide coverage under the Farmers' Protection Scheme (FPS) to planters

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI		
				• 11,000 physical arpents for open field cultivation; 380,000 m ² for sheltered farming and 1,030 arpents for tea cultivation		
Activity 4.7: Promoting sustainable crop production	High	FAREI	MAIFS	• Volume of food crops and fruits produced		
Intervention 4: Sustainable Agricultu	ral Practices -	- Livestock Sector				
Activity 4.8: Developing Livestock Zones	Low	Agricultural Services (APD)	DBM, Land Use Division, Ministry of Housing, Agricultural Services (LVD), FAREI	• Number of livestock zone created		
Activity 4.9: Establishing Waste Treatment	Medium	FAREI	Agricultural Services (APD)	• Schemes for waste treatment set up and implemented		
Activity 4.10: Setting up Silvopastoral (crop and livestock) system	High	FAREI	Forestry Service/ Private Sector	 Around 25 farmers trained in silvopastoral system 3 silvopastoral system set up 		
Activity 4.11: Promoting rearing of locally adapted breeds	Medium	FAREI		• Schemes to promote rearing of locally adapted breeds set up and implemented		
Activity 4.12: Supporting farmers to enhance resilience	Medium	FAREI		• Around 25 farmers trained in climate smart livestock production		
		SFWF		• Farmers Protection Scheme to be reviewed		
Activity 4.13: Promoting production of small livestock (family production)	Medium	FAREI		• Around 25 backyard units set up per year		
TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI		
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Intervention 5: Integrated Pest and D	visease Manage	ement – Food Crop Sector	•			
Activity 5.1: Introducing and developing tolerant varieties	Medium	FAREI		• Around 5 Crop varieties tolerant to abiotic stresses identified by 2030		
Activity 5.2: Enhancing biological	Medium	FAREI		• 3 biological control agents recommended		
control		Agricultural Services (Entomology Division, NPPO)		• Biological agents introduced, mass reared and released in planters' fields (5 million sterile fruit flies released per week by 2030)		
Activity 5.3: Promoting agro- ecological practices	High	FAREI		• 1 IPM packages promoted annually		
Activity 5.4: Promoting seed and soil health	Medium	FAREI		• 2 protocols developed and promoted for seed and soil health by 2026		
		Agricultural Services (ACD, NPVSO)		• Seed certification system operational by 2025		
				• Soil analysis carried out and results given to planters for judicious use of fertilisers		
Intervention 5: Integrated Pest and Disease Management – Livestock Sector						
Activity 5.5: Introducing tolerant breeds	Medium	FAREI		• 2 New breeds introduced, evaluated and recommended by 2027		
		Agricultural Services (APD)		• Sheep and goat breeds introduced, reared, and sold to breeders		
Activity 5.6: Promoting use of local genetic resources	Medium	FAREI		• Breeding programmes using local genetic resources implemented by 2027		

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEME AGEN	NTING CY	COLLABORATORS	KPI	
		Agricultural (LVD)	Services		• Breeding with creole breed	
Activity 5.7: Enhancing biosecurity	High	Agricultural (LVD)	Services		• Increase surveillance at border and decrease the risk of introduction of new pests and disease	
Activity 5.8: Introducing novel technologies for animal health and disease surveillance	Medium	Agricultural (LVD)	Services		• Improved and timely Veterinary Care through use of veterinary ambulance / No of Cases attended	
Intervention 6: Promotion of bio farming – Food Crop & Livestock Sector						
Activity 6.1: Organising sensitization campaigns on organic food consumption	Medium	FAREI		AgriculturalServices(NationalOrganicOffice - NOO)	• 1-2 sensitisation campaigns undertaken per year	
		Agricultural (NOO)	Services		• Organic office set up with certification of agricultural produce	
Activity 6.2: Developing and implementing Bio-Production Protocols	Medium	FAREI			• 10 protocols developed by 2027	
		Agricultural (NOO)	Services		• Bio-production protocols certified	
Activity 6.3: Providing a framework for certification and marketing of organic products	High	Agricultural (NOO)	Services		• Framework for certification developed and operational	
Activity 6.4: Promoting natural and organic farming	Medium	FAREI			• One model natural farm set up at Mapou by 2025	
		Agricultural (NOO)	Services		• Seeds production by natural farming	

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI			
Activity 6.5: Supporting farmers to access bio inputs	High	SFWF		• No of Farmers using bio inputs			
Intervention 7: Develop Smart and Innovative Production Systems – Food Crop Sector							
Activity 7.1: Promoting decision- making tools	High	FAREI		• Apps developed to assist growers in decision making by 2027			
		Agricultural Services (Horticulture Division)		• Decision making tools adapted			
Activity 7.2: Promoting Precision Agriculture	Medium	FAREI		• Training on precision agriculture carried out for 1000 growers			
		Agricultural Services (Horticulture)		• Precision agriculture implemented for seed production at Barkly Experiment Station			
Activity 7.3: Implementing Smart Irrigation Systems	High	FAREI		• 10 novel climate smart irrigation systems promoted by 2030			
		Agricultural Services (Horticulture Division)		• Smart irrigation systems in seed production farms at Barkly Experiment Station			
Activity 7.4: Promoting Automated Farming Systems	Medium	FAREI		• Demonstration Farm set up for Solar power driven technologies for agricultural water management by 2027			
		AgriculturalServices(Agronomy&Horticulture Division)		• Seed processing automated at Barkly by 2028			
Activity 7.5: Introducing Vertical and Controlled Environment Farming	Medium	FAREI		• Vertical and controlled environment structures for selected crops evaluated and promoted			

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI
		Agricultural Services (Horticulture Division)		• Seed production by using vertical farming at Roche Brunes Seed Production Centre
Activity 7.6: Supporting planters for modernisation and innovation	High	FAREI		• Schemes for modernisation and innovation set up and implemented
		SFWF	MAIFS/MCIA/ Agricultural Services/FAREI	• To subsidise around 2000 arpents under Subsidy for Agricultural Mechanisation Scheme (SAM)
Intervention 7: Develop Smart and In	novative Prod	uction Systems – Livestoo	ck Sector	
Activity 7.7: Promoting small ruminant and other small livestock farming including non-conventional livestock species	High	FAREI		 Training of 500 breeders on livestock rearing for increased production and productivity Schemes reviewed and implemented
Activity 7.8: Promoting adoption of climate smart practices	Medium	FAREI		 300 Farmers trained in climate smart practices annually Schemes set up on climate smart practices Reproduction farms upgraded
Activity 7.9: Developing smart livestock systems (IoT based)	Low	FAREI		 Apps developed Near real time information on farm data available Farmers trained in use of apps to monitor livestock management for improved performance

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI
		Agricultural Services (APD)		• IOT adapted in cattle and livestock reproduction farms
Activity 7.10: Promoting technologies for livestock waste management and waste recycling	Medium	FAREI		• Schemes set up and implemented
Activity 7.11: Developing bio- farming/livestock/crop integrated farming including silvopastoral systems	Medium	FAREI		 Sustainable farming practices developed Farmers/Entrepreneurs trained in sustainable farming practices
Activity 7.12: Supporting farmers for modernization and innovation	High	SFWF		• Schemes for modernisation and innovation set up and implemented
		FAREI		• Technologies such as AI, Renewable energies introduced and disseminated to farmers
Intervention 8: Promote Value Additi	ion – Food Cro	op Sector		
Activity 8.1: Setting up a Special Agro-Industrial Processing Zone (SAPZ)	Medium	MAIFS	FAREI/ Agricultural Services	• SAPZ Set up
Activity 8.2: Undertaking a study to assess crops to be promoted for value addition	Medium	FAREI		 Study carried out and crops identified Value Chain Analysis carried out for crops identified
Activity 8.3: Promoting contract farming	Medium	FAREI		Framework for contract farming developedFarmers sensitised on contract farming
Activity 8.4: Setting up a cold storage, grading and packing facilities at the National Wholesale Market	Medium	AMB		• Cold Storage Set up

TABLE 2: STRATEGIC ORIENTATIONS / INTERVENTION AREAS	PRIORITY AREAS	IMPLEMENTING AGENCY	COLLABORATORS	KPI
Activity 8.5: Supporting planters to access to value addition facilities	Medium	SFWF		• No. of Farmers supported
Intervention 8: Promote Value Additi	ion – Livestocl	x Sector		-
Activity 8.6: Undertaking a study on a value chain approach	Medium	FAREI		• Value Chain Analysis carried out for each commodity
Activity 8.7: Developing capacity in value addition	High	FAREI	MAIFS, Agricultural Services	 Additional Facilities set up for training in value addition Entrepreneurs trained in value addition
		Agricultural Services (FSTD)		• Capacity enhanced in value addition
Activity 8.8: Developing a Residue Monitoring Plan	High	Agricultural Services (Entomology Division & FSTD)		• Honey monitoring plan developed and implemented for export of local honey
Activity 8.9: Supporting farmers to access to value addition facilities	Medium	SFWF		• No. of Farmers supported
Intervention 9: Develop appropriate a	market structu	res – Food Crop & Lives	tock Sector	
Activity 9.1: Setting up of Farmers Information and Delivery System (FIDS)	High	FAREI		• Platform operational to provide timely production and market information
Activity 9.2: Developing standards	Medium	MSB	FAREI	• Grading system and standards set up
(grading) for fruits & vegetables		Agricultural Services (NAPRO, FSTD)	FAREI	• Standards developed for 6 fruits and vegetables (onions, potatoes, etc) based on Codex

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Activity 9.3: Upgrading of the SPS Information Management Portal	Medium	Agricultural Services (NPPO)	MAIFS	• SPS portal upgraded by 2027
Activity 9.4: Developing standards for	Medium	MSB	FAREI	• Standards developed
food crops & livestock products		Agricultural Services (FSTD)	MSB	• Standards developed for livestock products based on Codex
Activity 9.5: Promoting locally produced agricultural products through "made in Moris" label	Medium	FAREI		 Protocols for local products developed Schemes to access "made in Moris" label set up
Activity 9.6: Setting up of an Online Market Platform	High	FAREI	UNDP	• Operationalisation of "bazar Moris" platform by end 2024
Activity 9.7: Support farmers to access marketing opportunities	High	SFWF	MAIFS/Agricultural Services/FAREI	• No. of Farmers supported
Intervention 10: Capacity Building an	nd Professiona	lization of Operators & In	nstitutions – Food Crop	& Livestock Sector
Activity 10.1: Promoting entrepreneurship among youth, women and cooperatives	High	FAREI	SME Mauritius, NWEC	 New agro entrepreneurs trained 10% potential agro entrepreneurs trained and in business
Activity 10.2: Upgrading of the training infrastructure at Wooton	High	FAREI		• Training facilities upgraded by 2025
Activity 10.3: Establishing one additional incubation centre	Medium	FAREI		• New incubation centres set up by 2025
Activity 10.4: Training of farmers	High	FAREI		• 1,500 farmers trained annually
		Agricultural Services (LVD)		• Farmers trained on Clean Green Ethical concept, solid waste management

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Activity 10.5: Setting up a National Livestock Information System	High	Agricultural Services (APD)		• Microchipping of livestock carried out
Activity 10.6: Capacity building of beekeepers	High	Agricultural Services (Entomology Division)		• 100 Beekeepers trained annually in novel techniques



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