



## SDG 2: Ending Hunger, Achieve Food Security and Improved Nutrition and Promote Sustainable Agriculture

Agriculture and sugar production has played a significant role in the Mauritius's development. Agriculture continues to have an important role in the national economy and is a pillar for the security of livelihoods in rural areas. It is an important means for poverty eradication (particularly in Rodrigues), food security and assuring environmental sustainability.

Food availability in Mauritius is relatively secure and stable even though Mauritius imports most of its staples such as rice, wheat, edible oils, meats and dairy products. The country is self-sufficient in egg and poultry production and in the past few years, over 100,000 m<sup>2</sup> are now under hydroponic/sheltered production system producing 2000 tons of vegetables annually. Less than 5 percent of the population consumed food below the minimum dietary energy requirement.

The cane industry remains the main focus of the agriculture sector. Diversification within sugar is on track with new uses for by-products, producing value-added sugar and intercropping cane with such staples as potatoes. In addition, diversification within the non-sugar sector (crop, livestock, forestry and conservation) has contributed to food production and its forestry and biodiversity components are now playing vital roles in the management of natural resources, a significant contributor to sustainable development and the mitigation of climate change impacts.

In 2016, with the launch of a five-year *Strategic Plan 2016-20* for the non-sugar sector, Mauritius raised its national food safety and security level by increasing production of high quality strategic crops, vegetables and meat to satisfy local demand using bio-farming and sustainable production methods while enhancing import substitution. The target is to convert half of food crop production system to bio-norms by 2020 and bring the price of bio inputs at par with chemical inputs. In addition, sustainable agricultural practices that can adapt to climate change impacts and eco-friendly methods of production that are better for human nutrition are being embedded in policies, programmes and initiatives.

Climate change has increased the frequency, intensity and severity of disasters. There is now a higher prevalence of flash floods, rainfall variability and intense tropical cyclones. As a small island state, Mauritius has been facing the impact of climate change on water resources, which are stressed by variation in rainfall patterns and intensity and in some years, by droughts. This situation has been

### **Policy Framework for Food Security, Improved Nutrition and Sustainable Agriculture rests on the following 4 pillars**

1. Raising productivity of decreasing land resources;
2. Increasing agricultural exports and locally cultivable food crops and livestock through modern, tech-savvy practices;
3. Preserving forests and biodiversity resources to mitigate climate change and for ecotourism potential;
4. Improving the national food security level by maintaining self-sufficiency in locally produced foodstuffs with less agro-chemicals.

causing disruption of water supply to the population, including the agriculture sector. In addition, it is projected that total water resources available could decrease by 13% by 2050. Rising sea-levels and temperatures would negatively affect agriculture, fisheries, biodiversity and the tourism industry. In parallel, prevalence of severe food insecurity in the population increased from 5.0 per cent in 2015 to 5.9 per cent in 2016. This was mainly due to climate change and exposure to more complex, frequent and intense climate extremes, including strong cyclonic periods, droughts and floods. Despite these challenges, after allowing for climatic and market risks as well as eco-friendly production methods, a 2 percent annual increase in agricultural land productivity is an achievable target for the next decade, increasing the gross value added per hectare of agricultural land by more than 30 percent over the same period.

## **BRIGHT SPOTS**

### **Bio-Farming and Pesticides Use**

The radical change to bio-farming runs parallel with Government's commitment to food security and quality standards. A Bio-farming Development Certificate with an 8-year tax holiday scheme and exemption from various taxes and duties on importation of bio-fertilizer and bio pesticides was introduced in 2016. The creation of the Mauritius Agricultural Certification Body in 2016 provides certification for Green Agriculture/Bio-Farming. To-date, \_\_\_ certifications have been issued to small planters, representing an area of \_\_\_ hectares. Finally, the adoption of the *Use of Pesticides Act 2018* is another milestone to reaching the objective of producing bio.

### **Tea Sector Rehabilitation**

Tea is attracting renewed interest. Since the 1990s, the Mauritian Tea Sector faced various challenges from declining trend in tea cultivation, quality standards for the export market and low tea prices for small planters. The number of hectares for tea had dropped by more than 75 percent. The Mauritian Government took bold action to revive the sector. Around 600 acres of state land was earmarked for new tea planters. Foreign investment in the sector was encouraged. A new Chinese investor has now *stirred up* competition in the sector with new techniques for producing, harvesting and processing tea leaves. New tea retail outlets have also been introduced by the new investor. As a result, tea planters are fetching better prices for their tea leaves. Niche export markets have emerged for Mauritius black tea including Australia, France, Japan, Mayotte, Reunion, South Africa, Switzerland and the United Kingdom.

### **Collaborative Regional Links: Regional Programme for Food Security and Nutrition (PRESAN)**

The PRESAN project was adopted in 2016 by the 31<sup>st</sup> Council of Ministers of the Indian Ocean Commission (IOC). It promotes **regional food security** through the production of agricultural products of common interest in the Indian Ocean region. It aims also to increase productivity, competitiveness and trade between the islands as well as **improve food and nutrition security** and **address poverty alleviation in the Indian Ocean States**.

The project draws lessons from previous experiences in continental Africa and is **integrated in the Africa Union's Comprehensive Africa Agriculture Development Programme** which encourages **collaboration with public and private sectors** in different Member States to join

their efforts and actions regionally. Implementation is coordinated through the IOC Regional Unit for Food Security and Nutrition in Madagascar.

### Public-Private Collaboration for Skills Development

In view of attracting more youths to the agricultural sector, to address labour shortage, improve post-harvest life and minimise food wastage, innovative and modern food production practices such as *sheltered farming* equipped with *rain harvesting* and *photovoltaic* systems are being pursued. The *Plaine Magnien Young Entrepreneurs Sheltered Farming Park*, a public-private sector initiative in 2018 enrolled 10 unemployed graduates who were selected through a competitive bid process and trained them in sheltered farming techniques. These 7 men and 3 women between the ages of 25 and 35

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also learned entrepreneurial business skills on the path towards sustainable self-employment. State land was provided and the park is serving as a national promotional tool for sheltered farming systems. This pilot will be rolled out to other regions in the country and its success demonstrates that these initiatives can be instrumental towards the move to a more sustainable development model.

## FUTURE CHALLENGES AND OPPORTUNITIES

Challenges	Opportunities
<p><b>1. Climate Change</b></p> <p>As an Island Country, Mauritius is highly vulnerable to climate change. Agriculture is very susceptible to climate change and yet it holds significant potential to help address these challenges</p>	<ul style="list-style-type: none"><li>• A number of sectoral climate change adaptation projects are being implemented to enhance resilience, including the Integrated Pest and Disease Management (IPDM) and Integrated Coastal Zone Management (ICZM).</li><li>• Enhanced management of flooding and landslide risks from heavy rains and climate change is being addressed through the Land Drainage Authority, the national land drainage system and its characteristics and risks will be properly mapped and standards will be set and enforced.</li></ul>
<p><b>2. Sustainable Agriculture</b></p> <p>Over 70 percent of Mauritius is under agriculture and forest lands. In recent years, significant land areas have been moved out of agriculture to make way for infrastructure and residential</p>	<ul style="list-style-type: none"><li>• It will be important for Government to follow through with the integrated land use planning system to ensure sustainable management of land resources for agricultural, industrial, services, commercial and residential zones, and ecologically sensitive areas. A proper strategy will also need to be developed to promote mixed use and higher density development.</li></ul>

development. The area of cultivable land, water courses and biomass sources are under tremendous pressure to meet highly competing and at times conflicting demands for development.

Self-sufficiency at affordable costs (both in production and in human capital) is important as Mauritius imports 77 percent of its local food consumption requirements.

- To ensure an environmentally sustainable ecosystem and promote eco-tourism, the 47,000 ha of forests and natural parks is being preserved and enhanced through reforestation programmes and the unique flora and fauna will be protected, including in the islets.
- Technology innovations to mitigate natural hazards and climate-related disasters is a way forward. R&D in new technologies is being promoted to accelerate innovation, increase land productivity, sustainable production and attract techno-savvy agripreneurs into this sector. Smarter agriculture land use through bringing abandoned lands under new cultivation, continued diversification within the sugar sector and targeting high-value crops to boost import substitution production, raise agricultural exports and improve food security levels are being pursued.
- Drone technology, starting with the sugar industry, is being used to improve assessment and monitoring of crop performance in large areas.
- Modern eco-friendly farming, smart practices and technologies including bio-farming, hydroponics, and hybrid crop varieties will help increase production of healthy food and raise the levels of national food security in spite of the current challenges such as scarcity of land and water and harsh climate.
- Zero budget natural farming practices and eco-friendly production methods are being used to increase agriculture production particularly in milk, meat, poultry and bee keeping.
- Entrepreneurship programmes that focus more on innovation and smart production systems based on the cluster farming model are being put in place to attract both women and our educated youth to agri-business.
- Boosting up food production through cross-border initiatives to ensure food security and improve livelihood of farmers is tracking forward including establishing an Agricultural Risk Management Framework to increase the resilience of farmers and food production to address vulnerability to climate changes.