



**Comprehensive Africa Agriculture Development Programme (CAADP)** 

CAADP Nutrition Capacity Development Workshop for the Southern Africa Region

# **Nutrition Country Paper – Mauritius**

**DRAFT** – English Version

September 2013

This synthesis has been elaborated in preparation for the CAADP workshop on the integration of nutrition in National Agricultural and Food Security Investment Plan, to be held in Gaborone, Botswana, from the 9<sup>th</sup> to the 13<sup>th</sup> September 2013.

<u>The purpose of this Nutrition Country</u> Paper is to provide a framework for synthetizing all key data and information required to improve nutrition in participating countries and scale up nutrition in agricultural strategies and programs. It presents key elements on the current nutritional situation as well as the role of nutrition within the country context of food security and agriculture, including strategy, policies and main programs. The NCPs should help country teams to have a shared and up-to-date vision of the current incountry nutritional situation, the main achievements and challenges faced both at operational and policy levels.

# General sources used to produce this document

The tableau below suggests a list of sources to consult when completing the NCP. This list needs to be completed with all country-specific documents (e.g. national policies, strategic plans) that are available in your country.

Sources	Information	Lien internet
CAADP	Signed Compact / Investment plans / Stocktaking documents / Technical Review reports if available	http://www.nepad-caadp.net/library-country-status-updates.php
DHS	DHS Indicators	http://www.measuredhs.com/Where-We-Work/Country-List.cfm
FANTA	Food and Nutrition technical assistance / select focus countries	http://www.fantaproject.org/
	Nutrition Country Profiles	http://www.fao.org/ag/agn/nutrition/profiles by country en.stm
	FAO Country profiles	http://www.fao.org/countries/
FAO	FAO STAT country profiles	http://faostat.fao.org/site/666/default.aspx
	FAPDA – Food and Agriculture Policy Decision Analysis Tool	http://www.fao.org/tc/fapda-tool/Main.html
	MAFAP – Monitoring African Food and Agricultural Policies	http://www.fao.org/mafap/mafap-partner-countries/en/
OMS	Nutrition Landscape information system (NILS)	http://apps.who.int/nutrition/landscape/report.aspx
REACH	REACH multi-sectoral review of existing data on the nutrition situation, programmes and policies	When available
ReSAKKS	Regional Strategic Analysis and Knowledge Support System	http://www.resakss.org/
SUN	Progress Report from countries and their partners in the Movement to Scale Up Nutrition (SUN)	http://scalingupnutrition.org/resources-archive/progress-in-the-sun-movement
UNICEF	Nutrition Country Profiles	http://www.childinfo.org/profiles 974.htm
UNICEF	MICS: Multiple Indicators Cluster Surveys	http://www.childinfo.org/mics_available.html
WFP	Food security reports	http://www.wfp.org/food-security/reports/search
World Bank	Economic reports	http://data.worldbank.org/indicator
UNDP	Development report	http://hdr.undp.org/en/data/profiles/
Other Sources		
National Sources	Key national policies / documents to be added	

#### I. Context -Food and nutrition situation

General Indicators		Sources/Year
Population below international poverty line of US\$1.25		
per day		
Under-five mortality rate (per 1,000 live births)	15	UNICEF 2011
Infant mortality rate (per 1,000 live births)	13	UNICEF 2011
	Congenital	
	anomalies	
Primary causes of under-five deaths (list the 3 main	(20%)	
causes):	Birth asphyxia	UNICEF 2008
	(19%)	
	Prematurity	
	(14%)	
Maternal mortality rate /100 000 lively births	60	UNDP 2012
Primary school net enrolment or attendance ratio	99%	UNICEF 2009
Primary school net enrolment -ratio of females/males	93%	UNICEF 2011
HIV/AIDs prevalence between adults 15-49 years	1%	WB 2009
Percentage of population living in rural areas	57.4%	WB 2010
Access to improved drinking water in rural areas	99%	WB 2010
Access to improved sanitation in rural areas	90%	WB 2010
Agro-nutrition indicators		Sources/Year
Land area	2040 km2	WB 2010
Agricultural area	1010 km2 (48%)	WB 2010
Food Availability and consumption		
Average dietary energy requirement (ADER)		
Dietary energy supply (DES)		
Total protein share in DES		
Fat share in DES		
Average daily fruit consumption (excluding wine) (g)	30.07	Statistics
, , , , , , , , , , , , , , , , , , , ,		Mauritius(2011)
Average daily vegetable consumption (g)	75.3	Statistics Mauritius(2011)
	<u> </u>	17100110103(2011)

## Geography, population & human development

The Republic of Mauritius is made up of a group of four tropical islands and smaller islets located in the southern Indian Ocean, about 2,400 km east of the African continent. The main islands are Mauritius, Rodrigues, Agalega and St Brandon. Mauritius Island is the largest and most densely populated of the group. It covers an area of 1,865 km2 and has a population of about 1.2 million people. The second largest island, Rodrigues, lies further to the east and has a population of nearly 36,000 on an area of 108 km2. The mixed population of the country is made up of

Indians, Creoles, Africans, Chinese and Europeans. The islands are volcanic in origin and are surrounded by coral reefs. Mauritius Island has a small coastal plain, mountains and a central plateau.

Mauritius has a population of 1 313 800 (51% female), of which 41.8% lives in urban areas. The HDI of Mauritius has not ceased to increase since the 1980s; as of 2012, Mauritius was 80<sup>th</sup> in the HDI ranking (with a value of 0.737), while the inequality-adjusted HDI value is 0.639, and the health index is 0.844 (UNDP, 2013). Life expectancy is 73.5 years, while the adult (aged 15 years and over) literacy rate is at 88.5%, and the primary school enrolment is 99.4% (dropout rates for primary school is at 2.2%). The Gender Inequality Index (GII) value is at 0.377, while the ratio of female to male share of the labour force is 0.584.

### **Economic Development**

Mauritius is ranked high in terms of competitiveness, investment climate, governance and economy. The Gross Domestic Product estimate was at \$20.200 billion and GDP per capita income over \$15,591 in 2012, one of the highest in Africa. Mauritius has an upper middle-income economy, according to the World Bank in 2011. Since independence in 1968, Mauritius has developed from a low-income, agriculture-based economy to a middle-income diversified economy. The economy is based on tourism, textiles, sugar, and financial services. In recent years, information and communication technology, seafood, hospitality and property development, healthcare, renewable energy, education and training have emerged as important sectors, attracting substantial investment from both local and foreign investors. Mauritius has no exploitable natural resources and therefore depends on imported petroleum products to meet most of its energy requirements. Local and renewable energy sources are biomass, hydro, solar and wind energy. Mauritius has one of the largest Exclusive Economic Zones in the world; in 2012, the government announced its intention to develop the Ocean Economy.

## Agriculture (cultivable area, main cash and food crops, livestock production...)

The Agricultural land (% of land area) in Mauritius was 48.28 in 2009, according to a World Bank report, published in 2010. Agricultural land refers to the share of land area that is arable, under permanent crops, and under permanent pastures. Arable land includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded. Land under permanent crops is land cultivated with crops that occupy the land for long periods and need not be replanted after each harvest, such as cocoa, coffee, and rubber. This category includes land under flowering shrubs, fruit trees, nut trees, and vines, but excludes land under trees grown for wood or timber. Permanent pasture is land used for five or more years for forage, including natural and cultivated crops.

Agricultural production in Mauritius has been declining steadily since the early 1970s, when it accounted for about 30 per cent of gross domestic product (GDP). In 2004 the sector represented only about 5 to 6 per cent of GDP, and recent output has declined even further.

In the past the sugar industry dominated agricultural production in Mauritius. As much as 90 per cent of arable land on the main island was planted with sugar cane. Sugar cultivation, processing and transport accounted for nearly 70 per cent of the GDP generated by agriculture and about 25 per cent of export earnings. But these figures are now in decline. The industry is losing its predominant position in the country's economy as a result of falling sugar prices and the end of preferential trade links with the European Union. In response, the country is beginning to diversify agricultural production. Aside from sugar, the other main agricultural products of Mauritius are food crops, livestock and poultry, and marine products. On the islands of Mauritius and Rodrigues, about 4,700 men and women fish the coastal lagoon at the edges of the reef.

Environmental damage is a major impediment to agricultural and fisheries productivity. The islands are densely populated, and the growing population places considerable pressure on both land and marine resources.

The lagoons surrounding the two main islands are being damaged by siltation and water pollution and by over-fishing, both small-scale and commercial. Its resources are depleting rapidly. The lagoon is a vital asset. It provides livelihoods for most of the coastal population, it is a significant tourist attraction, and it is also a protective barrier against tidal waves and tsunamis.

New measures are under way to prevent excessive exploitation and to curb water pollution in the lagoon. There is a need to create new and more sustainable incomegenerating activities for coastal communities, such as agriculture and seaweed culture in the lagoon, possibly integrated with ecotourism.

Recently the sugar industry has started losing its predominant position in the country's economy as a result of falling sugar prices and the end of preferential trade links with the European Union (EU). Mauritius could no longer rely on the safety net of the Sugar Protocol. The foreign exchange derived from the sale of sugar to the EU had so far been adequate to pay for our food imports. With the recent proposal of the EU, there is no certainty of the level of income from sugar, and therefore, food imports are at risk. Mauritius used to spend a large part of the revenue obtained from the export of sugar to import its food requirements, mainly rice, flour, pulses, chicken, beef, onions and milk products. This has made Mauritius to be classified as a Net Food Importing Developing Country (NFIDC) under the World Trade Organization (WTO). However, apart from flour, all the other food items mentioned could be produced partly or even totally in Mauritius. Thus, imports could be reduced and

foreign exchange saved. For this reason, the government decided to diversify the agricultural sector to enhance the production of crops and livestock. The government decided that diversification should however not be at the expense of sugarcane.

The government is encouraging departure from sugar cane monoculture through a diversification crop policy. Through the democratisation process, the Government of Mauritius is widening access to lands and has made available 200 acres of agricultural land to be leased out to small planters for agricultural diversification. The government had also offered a number of incentives to farmers to ensure the success of the diversification programme: agricultural credit, i.e. financial loans from bank, subsidy on the price of certain commodities, a guaranteed price was offered for some commodities and facilities were made available to livestock breeders. The food crop sub-sector is meant for local consumption with less than 1% of total production being exported. These exports consist of basically small amounts of vegetables (potatoes, tomatoes, and onions), fruits, tea, or cut flowers. Essential food items such as rice, cereals are currently imported from other countries. The country also produces fish, some of which is exported. Livestock production is limited and meant for local consumption. Mauritius produces enough potatoes and fresh vegetables to meet domestic demand. It can be said that the country is self-sufficient in fresh vegetables except in times of unfavourable climatic conditions (cyclones, drought, and heavy rains). The crops cultivated are beans, peas, potato, maize, groundnut, onion, tomato, cabbage cauliflower, creepers, other vegetables such as beet, bittergourd, brinjal, cabbage, calabash, carrot, chillies, chouchou, cucumber, ginger, garlic, ladies finger, lettuce, maize, manioc, patole, petsai, pipengaille, pumpkin, squash, sweet pepper, sweet potato, voehm among others, and also banana, and pineapple. After nearly 20 years, it can be said that Mauritius has succeeded in a certain measure in its diversification program. Today the country is more than 33% self-sufficient in its food requirements. Mauritius has derived many advantages from its agricultural diversification programs. These advantages are: imports have been reduced and foreign currencies saved, employment has been created, our dependence on sugar has been reduced, the country has become selfsufficient in certain commodities and new crops help to earn additional foreign currencies.

Though, Mauritius has attained self-sufficiency in certain number of crops, being a small island, the agricultural sector of the country is however under multiple stresses. Owing to variation of rainfall patterns in time and space, in some zones, agriculture is not possible without irrigation. In addition, the island being volcanic and relatively young, in many places, especially in the North, West and South-East, the soil is rocky, that is, basaltic rocks are present in the surface and as well as the sub-surface. Consequently, derocking is necessary and is a constraint to the agricultural mechanisation and irrigation. Furthermore, fertile land is becoming an increasingly severe constraint to food crop production in Mauritius. The 1994 Master Plan for Agriculture estimated that 300–350 ha of land was being removed from

agriculture annually to cater for residential and commercial developments. Also, rotational land from sugar estates is becoming less available to food crop growers. In addition, the main climatic threat, which affects agriculture, in particular is the occurrence of cyclones, which significantly damage or even eradicate harvests. Invasion of alien species threatens remaining endemic biodiversity and the current management system for terrestrial and marine park protection is still inadequate. Lagoons have been depleted through overfishing and must be protected through concerted efforts in order to revive fishing potential and protect the natural resource base. Further, while in the sugar sector an insurance scheme is fully functional, a pilot insurance scheme for the food crop sector has only recently been started with only one crop being covered namely carrots. The scheme will be replicated to other crops upon the successful performance of the insurance scheme. Agricultural production is also restricted due to losses in harvested agriculture, which include handling damage, insect, fungal, vertebrate pests, diseases and spoilage. Lack of cold storage facilities and access to processing technologies and equipment have until recently prevented from the proper utilisation of increased production of vegetables and fruits. In addition to the already prevailing threats in the agricultural sector, climate change is likely to bring about its own problems.

Global warming and increased frequency of extreme weather events will increase the vulnerability of the farming/planters community. The impact of climate change and variability will cause a change in the cropping pattern for some crops from lowlands to higher altitude. Besides, the cropping calendars, flowering and productivity of some vegetables and fruits will also be affected. Crop cycle may shorten leading a decrease in yields. Production can also be affected by more frequent and severe droughts as well as cyclones and heavy rains. More frequent storm surge thus destroying crops and affecting soil quality and productivity may affect coastal land. Warmer temperature and milder winters will lead to an increase incidence of pest and diseases.

Food Security (food availability, access, utilization, diet and food habits, and coping mechanisms)

Main causes of malnutrition in your country related to economic vulnerability and food security

Agro-Nutrition Indicators (continued)	Sources/Year	
Nutritional Anthropometry (WHO Child Growth Standards)		
Prevalence of stunting in children < 5 years of age		
Prevalence of wasting in children < 5 years of age		
Prevalence of underweight children < 5 years of age	0.2%	MOHQL 2012
% of underweight Women (15-49 years) (BMI < 18.5 kg/m²)	8.5 %	MOHQL 2012
% of overweight Women (15-49 years) (BMI ≥ 25. kg/m²)	41.4	MOHQL 2012
Prevalence of obesity		
<sup>-</sup> Children under 5 years old	0.2 %	MOHQL
- Women of reproductive age (BMI > 30 kg/m²)	20%	NS 2009

Chart: Prevalence of stunting among children under 5 years old, including trends

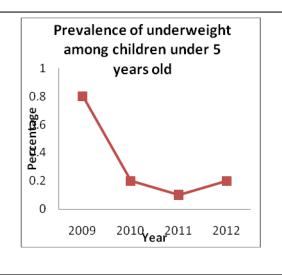


Table: Prevalence of wasting, stunting and underweight among children under 5 years old depending on gender, residence and wealth quintile

## **Nutritional Situation**<sup>i</sup>

According to WHO (2011), only 5.7% of the population was below minimum levels of dietary energy consumption.

The prevalence of type 2 diabetes in Mauritius is high. , The prevalence of diabetes presented in this report would give Mauritius the second highest figure of any country in the world, according to the International Diabetes Federation's recently published Diabetes Atlas. Apart from the escalating rate of diabetes, there is a high prevalence of pre- diabetes, a condition associated with increased risk of heart

disease and subsequent diabetes. The high rates of diabetes and pre-diabetes, coupled with those of obesity, dyslipidaemia and hypertension, constitute a significant threat in terms of the future social and economic burden of cardiovascular disease and diabetes complications for Mauritius, both in relation on direct medical costs but also national productivity due to the impact of these diseases on the workforce as discussed below. Diabetes and its complications are associated with very high social and economic costs for both the person with diabetes, and governments. The high rates of diabetes and cardiovascular disease risk factors represent a very large public health burden that requires urgent measures both for prevention and treatment of diabetes and its associated complications.

Agro-nutrition indicators (continued)		Sources/Ye ar
Infant feeding by age		
Children (0-6 months) who are exclusively breastfed	21%	WHO 2002
Children (6-9 months) who are breastfed with complementary food		
Children (9-11 months) who are using a bottle with a nipple		
Children (18-23 months) who are still breastfeeding		
Prevalence of micronutrient deficiencies		
Prevalence of vitamin A deficiency among pre-school children	4.8%	WHO 1995
Prevalence of vitamin A deficiency among pregnant women		
Prevalence of anemia among pre-school children	5.3%	WHO 1995
Prevalence of anemia among women (15-49 years)	33.6 %	MOHQL
Prevalence of iodine deficiency among pregnant women	39.2%	WHO 1995
Prevalence of goiter among school children		
Coverage rates for micronutrient-rich foods and supplements i	ntake	
% Households consuming adequately iodized salt (≥ 15ppm)	No i	odized salt in Mauritius
Vitamin A supplementation coverage rate (6-59 months)		
Vitamin A supplementation coverage rate (≤2 months postpartum)		

### Infant feeding

The prevalence of breastfeeding practice in Mauritius has raised from 72% in 1991 to 93.4%, while only 17.9% breastfed their children exclusively for the first 6 months, and the mean duration of EBF (exclusive breastfeeding) is 2.10 months. Complementary feeding was more commonly initiated around 4–6 months (75.2%). Despite the fact that 60.6% of mothers initiate breastfeeding and 26.1% of mothers are found to breastfeed up to 2 years, the practice of EBF for the first 6 months is low (17.9%). Factors found to influence infant feeding practices are type of delivery, parity, alcohol consumption, occupation, education, and breast problems.

#### **Micronutrients**

No data exists after 1995.

Data from 1995 indicates that there were low rates of micronutrient deficiencies among children under five years (5.3% anaemic; 4.8% subclinical vitamin A deficiency) and among pregnant women (39.2% anaemic).

### Care practices and sociocultural issues (incl. gender issues; cultural habits/norms)

The Constitution of Mauritius has been amended to include gender in the definition of discrimination. In addition, the government adopted (in 2000) a law against sexual discrimination. All citizens are equal under Mauritian legislation, but the society is very multi-cultural and remains firmly rooted in tradition. Moreover, men dominate the social system.

Mauritian women have equal rights as men in regard to inheritance. Widows and widowers inherit the property of the deceased spouse, whatever the circumstances and the matrimonial regime, even if the deceased did not leave a written will. There are no legal or customary restrictions that favour male heirs over females.

With respect to ownership of property other than land, women are treated equally with men under the law with respect to their legal rights to conclude contracts and administer property without the interference or consent of a male partner. However, specific provisions may apply dependent on the type of matrimonial regime, although the impact then, is equally applied to men and women. The Mauritian Civil Code had been amended in 1981 to allow a woman to choose, upon marriage, whether she preferred a separate property or community property regime. If she chooses a separate property regime she retains and manages all her own wealth and earnings. Marriages under the community of property regime are governed by specific measures, but these concern men more than women and mutual consent is necessary only for certain operations.

The cuisine of Mauritius is a blend of Creole, Chinese, European and Indian influences. It is common for a combination of cuisines to form part of the same meal. Mauritius has had strong ties with French culture throughout its history and was left with a very French "savoir vivre". Even today, the popularity of French dishes like the bouillon, tuna salad, daube, civet de lièvre or coq au vin served with good wine show

the prevalence of French culture in Mauritius. As years passed by, some have been adapted to the more exotic ingredients of the island to confer some unique flavor.

During the 19th century, after the abolition of slavery, Indian workers who migrated to Mauritius brought their cuisine with them. Those indentured labourers came from different parts of India, each with their own culinary tradition, depending on the region. Traces of both Northern and Southern Indian cuisine can be found in Mauritius. Some common preparations are curry, chutney, rougaille (tomato paste that is very popular with fish) and pickles, most of which use local ingredients. The Mauritian versions of those dishes have a local flavour and differ, at times considerably, from the original Indian recipes.

The end of the 19th century saw the arrival of Chinese migrants, who came mostly from the south-eastern part of China. They are largely credited with making rice, the staple diet of the island, and making noodles, both steamed and fried, popular. Chinese appetizers such as hakien (local version of the spring roll with a flour batter replacing the traditional rolled wrapping), crispy chicken and crispy squid have become part of the Mauritian folklore. Furthermore, Chinese and other Asian restaurants are present all around the island, and offer a variety of chicken, squid, beef, mutton and fish dishes, most typically prepared in black bean sauce or oyster sauce. Mauritian families often consider a dinner at an Asian restaurant as a treat. Along the years, each of the country's communities have adapted and mixed each other's cuisine to their liking.



Main linkages between malnutrition and disease (incl. HIV/AIDS)

Main causes of malnutrition related to care and infant feeding practices, sociocultural barriers (incl. gender issues)

<b>Malnutrition and Food insecurit</b> Maps sources	ty levels by region
!	
! ! !	
1 1 1	
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 	Map: Prevalence malnutrition / food insecurity/ other indicators of nutritional status among regionsNot applicable
1 1 1	
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# II. Current strategy and policy framework for improving food security and nutrition

Specific strategies, policies and programs currently in place to improve nutrition

Strategy / Policy	Reference Period	Objectives and main components	Budget / Donor	Stakeholders	Key points	Integration of Nutrition
STRATEGIC FRAMEWORK	(					
Blueprint for a Sustainable Diversified Agro Food Strategy for Mauritius	2008-2015	The Strategy outlines a number of measures to ensure food security, foreign exchange earnings, sustainable development and an improvement in the diet and health of the nation. It also calls on Mauritian consumers to take up kitchen gardening, eat more locally produced food and reduce food waste.	(i) Food Security Fund (ii) (ii) Budgetary allocation determined on an annual basis and specifically relating to programme and livestock production and crop development; (iii) Private sector on account of commercial nature of their activities (iv) Development Partners, Regional Funds, and bilateral donors.	Ministry of Agro Industry and Food Security	There is a component which consist of the production strategic crops for food sovereignty and nutritional security.	Country point of view : Fill with one of the following symbol :
AGRICULTURE	1					
Strategic Options in Crop and Livestock	2007-2015	The specific objective of this plan is to map out strategies to enhance the role of agriculture and in particular the non-sugarcane sector in the economy and society, with a view to: improving standards of living of the population and the increasing demand for better quality and safer food products; enhancing the level of self-sufficiency in a number of selected agricultural products; revitalising the livestock sector; developing a modern agricultural sector in tune with the sophistication taking place in other sectors of the	Ministry Of Finance and Economic Development	Ministry of Agro Industry and Food Security		

Strategy / Policy	Reference Period	Objectives and main components	Budget / Donor	Stakeholders	Key points	Integration of Nutrition
		Mauritian economy; economically and technically empowering the agricultural community especially the younger skilled generation by giving them opportunities and appropriate support to enable them to emerge as agricultural entrepreneurs; sharpening our competitive edge on the export front with quality and diversified products taking into account the trade liberalisation and globalisation process and cross border initiatives; and seizing all opportunities on the regional front to develop Mauritius into an agro-				
		business hub.				
FOOD SECURITY						
Food Security Fund Strategic Plan	2013-2015	<ul> <li>Improve production of food crops, milk and meat</li> <li>Provide financial initiatives to planters to adopt new production techniques for improving productivity and quality.</li> <li>Develop sustainable farming methodologies through capacity building</li> <li>Enhance R&amp;D activities</li> <li>Develop livestock sector to make it more efficient and dynamic</li> <li>Set up community based dairy farms</li> <li>Acquire space, machines and equipment to support the processing industry</li> </ul>	1 billion (Ministry of Finance)	Ministry of Agro Industry and Food Security		

Strategy / Policy	Reference Period	Objectives and main components	Budget / Donor	Stakeholders	Key points	Integration of Nutrition
NUTRITION						
HEALTH & SOCIAL PROTE	CTION					
Action Plan for Health	2002	The aim of the Action Plan is to improve the level of health in Mauritius and the range and quality of health services, to meet the present and future needs of the people				

# III. Country nutritional programs & initiatives currently implemented and/or planned

# Main programmes and interventions being implemented to improve nutrition in the different sectors (health, agriculture, food security...)

The Nation Plan of Action for Nutrition 2009-2010 is a comprehensive Plan formulated to meet nutritional needs of the people. It is explicit about the programmes and is being updated (NPAN 2014-18) with new strategies such as the Salt Reduction Strategy. The Ministry of Education and Human Resources has several programmes to promote healthy eating and healthy lifestyle as per Ministry of Education and Human Resource Strategic Plan 2008- 2020. However, it works in close collaboration with the Ministry of Health & Quality of Life in its endeavor to have a healthy population. Several initiatives have been taken in close collaboration with other ministries and stakeholders to inculcate in our students the importance of healthy food and ways to grow healthy food which are in line with MID project with a view to promoting sustainability for life. Fish breeding is encouraged with the prime aim of providing sustainability for life to be self-sufficient in terms of healthy food.

During activity periods and through the GREEN SCHOOL PROJECT students are encouraged to grow vegetables and fruits. Many initiatives are taken at school level for the promotion of kitchen garden where only compost produced at school are used. Students are advised to grow herbs and strawberries in the bay window of their classrooms. In some schools each class is given a plot of land for their particular project of growing lady fingers, Cassava, beans, etc. Technical advice is sought from the Ministry of Agro-Industry and food Security and Agricultural Research and Extension Unit.

Beside the GREEN SCHOOL PROJECT, many other initiatives are taken at school level to promote healthy eating. National plan of Action (2009/2010) of the Ministry of Health & Quality of Life (MOHQL) revealed that the prevalence of overweight and obese adolescents, aged 12- 19 years, is 8.4% and 7.3%, respectively.

- a) NGOs under their CSR projects carry out sensitization and have even distributed DVDs on healthy diets
- b) Awareness is created on healthy diet through various communication support documents mainly posters and flyers provided by the Ministry of Health & Quality of Life
- c) Special initiatives are taken at school level to sensitize students on the type of food from the different group so that they are not prone to diabetes and they are overweight.
- d) Sale of soft drinks have been banned in all primary and secondary schools' canteens as from January 2007
- e) In primary schools students are given bread
- f) In the ZEP schools of the primary sector, hot meals are provided to ensure that the pupils get a proper balanced diet so that they can work better and in the long run, give better results.
- g) Pupils are also given hot meals in both Summer and Winter schools.

h) Topics on nutrition are included in Curriculum for upper primary and lower secondary level. Curriculum Topics on Nutrition for Primary schools

#### **Health Education:**

MyFood-Std I,

My food: Fruits and Vegetables, Milk, Breakfast, lunch and dinner (StdII)

My food: the three food groups and food for energy, food for growth and health, eating a balanced diet and a healthy school lunch (Std IV)

My food: healthy and less healthy foods, alternatives to less healthy foods, a balanced meal, importance of balanced meal and healthy snacks (Std IV)

Nutrition and food hygiene: the importance of expiry date, the indication of food labels, precautions to avoid food poisoning (Std V)

Nutrition: Obesity, tooth decay and other health problems related to bad eating habits (Std VI)

# Consideration of nutritional goals into programs / activities related to agriculture and food

- 1) Circular Letter has been sent to all schools since 2009 regarding food stuffs that can be sold and those that cannot be sold at schools. (As per Food Act)
- 2) Ministry of Health & Quality of Life (HQoL) in collaboration with the Ministry of Education and Human Resources has banned the sale of junk food in all school canteens. Strict monitoring is done at school level and by the officers of the Sanitary Division of the . Ministry of Health & Quality of Life (HQoL).
- A Canteen Committee has been set up in all schools to monitor sale of healthy food.
- 4) School Heath Programme has been initiated since 2007 among FIII and LVI students of the secondary schools so as to detect any cases at an early stage and such cases are referred to the Ministry of Health & Quality of Life for follow-up.
- 5) Officers of Min. of Health & Quality of Life conduct General Health check-ups which include:
  - (i) Diabetes test
  - (ii) Obesity test
  - (iii) Vision test
  - (iv) Blood Pressure test
- 6) Sensitization programme is regularly carried out on "Health promotion", balanced diet, and healthy life style, through talks, short films and sketches
- 7) Awareness is raised on the health implication of soft drinks and other junk food through talks.
- 8) Other programmes like sensitization on HIV AIDS for a sustainable and healthy lifestyle are conducted by resources people's fron Mof H&QoL, NGOs

The Ministry also envisages to give a health passport to all students with a view to monitor closely the health of the children and adolescents.

# Main population groups targeted & localisation

The programs are being inculcated in the school curriculum which aim at sensitising students.

The population is being informed through Sensitization programme, talks, short films and sketches on "Health promotion", balanced diet, and healthy life style.

# **Funding opportunities**

IBRD and EU Aid are the largest foreign donor to Mauritius.

Foreign Direct Investment in Mauritius has increased tenfold, from 32.7 million USD in 2002 to 367.7 million USD in 2007.

Not a donor favourable country in view that Mauritius is classified as an upper middle-income country.

# **Monitoring & Evaluation mechanisms**

Strict monitoring is done at school level and by the officers of the Sanitary Division of the Ministry of Health & Quality of Life.

# IV. Stakeholders, coordination mechanisms and national capacities for implementing food and nutrition security framework

# Main national entities in charge of designing and implementing the food and nutrition policy framework

The main objectives are to reduce incidence of childhood diseases and illnesses through appropriate precautionary measures, , to provide comprehensive healthcare services with the help of Ministry of Health and Quality of Life through various programmes, to advise children and their parents as well on the importance of breakfast and a healthy diet,

The National Curriculum framework (NCF Primary) caters for Health Education. The National Curriculum framework (NCF Secondary) caters for subjects that promote health education and healthy eating habits and sustainable life style.

The Nutrition, students are taught Home Economics, Food and Nutrition, and food studies,. In the Social studies and Biology classes students are provided with guidelines and advice towards a healthy diet.

### Main management and technical capacities at the institutional level

There is pool of qualified staff comprising of doctors, nutritionist and researches which works in collaboration to make Mauritius a healthy nation.

## Disaster prevention/management structures

There is the national platform called the Cyclone and Other Natural Disaster Committee for disaster management and also the National Disaster and Operations Coordination Centre which coordinates activities in the event of an emergency or a crisis at national level.

### **Monitoring and Evaluation capacities**

Proper Monitoring is done at school and NCD programs are carried out round the island.

### Main technical and financial partners

Ministry of Finance and Economic Development

Main coordination mechanisms (Task force, core group, cluster...)

Adherence to global / regional initiatives linked to nutrition (e.g. SUN, REACH, CAADP...)

Main issues at stake to improve the mainstreaming and scaling-up of nutrition at the country level and regional / international level, taking into account sustainability

# **Definitions**

Acute hunger	Acute hunger is when the lack of food is short term, and is often caused when shocks such as drought or war affect vulnerable populations.
Chronic hunger	Chronic hunger is a constant or recurrent lack of food and results in underweight and stunted children, and high infant mortality. "Hidden hunger" is a lack of essential micronutrients in diets.
Direct nutrition interventions and nutrition-sensitive strategies	Pursuing multi-sectoral strategies that combine direct nutrition interventions and nutrition-sensitive strategies. Direct interventions include those which empower households (especially women) for nutritional security, improve year-round access to nutritious diets, and contribute to improved nutritional status of those most at risk (women, young children, disabled people, and those who are chronically ill).
Food Diversification	Maximize the number of foods or food groups consumed by an individual, especially above and beyond starchy grains and cereals, considered to be staple foods typically found in the diet. The more diverse the diet, the greater the likelihood of consuming both macro and micronutrients in the diet. Source: FAO
Food security	When all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.
Hunger	Hunger is often used to refer in general terms to MDG1 and food insecurity. Hunger is the body's way of signaling that it is running short of food and needs to eat something. Hunger can lead to malnutrition.
Iron deficiency anemia	A condition in which the blood lacks adequate healthy red blood cells that carry oxygen to the body's tissues. Without iron, the body can't produce enough hemoglobin, found in red blood cells, to carry oxygen. It has negative effects on work capacity and motor and mental development. In newborns and pregnant women it might cause low birth weight and preterm deliveries.
Malnutrition	An abnormal physiological condition caused by inadequate, excessive, or imbalanced absorption of macronutrients (carbohydrates, protein, fats) water, and micronutrients.
Millennium Development Goal 1 (MDG 1)	Eradicate extreme poverty and hunger, which has two associated indicators: 1) Prevalence of underweight among children under five years of age, which measures under-nutrition at an individual level; and, 2-Proportion of the population below a minimum level of dietary energy consumption, that measures hunger and food security, and it is measured only at a national level (not an individual level). <i>Source: SUN Progress report 2011</i>

Multi-stakeholder approaches	Working together, stakeholders can draw upon their comparative advantages, catalyze effective country-led actions and harmonize collective support for national efforts to reduce hunger and under-nutrition. Stakeholders come from national authorities, donor agencies, the UN system including the World Bank, civil society and NGOs, the private sector, and research institutions.
Nutritional Security	Achieved when secure access to an appropriately nutritious diet is coupled with a sanitary environment, adequate health services and care, to ensure a healthy and active life for all household members.
Severe Acute Malnutrition (SAM)	A weight-for-height measurement of 70% or less below the median, or three standard deviations (3 SD) or more below the mean international reference values, the presence of bilateral pitting edema, or a mid-upper arm circumference of less than 115 mm in children 6-60 months old.
Stunting (Chronic malnutrition)	Reflects shortness-for-age; an indicator of chronic malnutrition and it is calculated by comparing the height-for-age of a child with a reference population of well-nourished and healthy children.
Underweight	Measured by comparing the weight-for-age of a child with a reference population of well-nourished and healthy children.
Wasting	Reflects a recent and severe process that has led to substantial weight loss, usually associated with starvation and/or disease. Wasting is calculated by comparing weight-for-height of a child with a reference population of well-nourished and healthy children. Often used to assess the severity of emergencies because it is strongly related to mortality. Source: SUN Progress report 2011

# Acronyms

AUC	African Union Commission
BMI	Body Mass Index
CAADP	Comprehensive Africa Agriculture Development Program
CIP	Country Investment Plan
CFSAM	Crop and Food Security Assessment Mission
CFSVA	Comprehensive Food Security and Vulnerability Analysis
COMESA	Common Market for Eastern and Southern Africa
DHS	Demographic and Health Survey
<b>ECCAS</b>	Economic Community of Central African States
EFSA	Emergency Food Security Assessment
FAFS	Framework for African Food Security
FAO	Food and Agriculture Organization
FNS	Food and Nutrition Security
FSMS	Food Security Monitoring System
GAM	Global Acute Malnutrition
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
NAFSIP	National Agriculture and Food Security Investment Planning
NCHS	National Center for Health Statistics, Centers for Disease Control & Prevention
NEPAD	New Partnership for Africa's Development
NPCA	National Planning and Coordinating Agency
PRS	Poverty Reduction Strategy
REACH	Renewed Efforts Against Child Hunger
REC	Regional Economic Community
SADC	Southern African Development Community
SAM	Severe Acute Malnutrition
SUN	Scaling-Up Nutrition

UNDP	United Nations Development Program
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
WFP	World Food Program
WHO	World Health Organization

<sup>&</sup>lt;sup>i</sup>In 2006, reference norms for anthropometric measures have been modified: from NCHS references to WHO references. To compare data measured before and after 2006, we usually use NCHS references.