Comprehensive Africa Agriculture Development Programme (CAADP)

CAADP Nutrition Capacity Development Workshop for the Southern Africa Region

Nutrition Country Paper – Seychelles

DRAFT - ENGLISH VERSION

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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 9th to the 13th September 2013.

The purpose of this Nutrition Country 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 in-country 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 toconsult 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/
FAO	Nutrition Country Profiles	http://www.fao.org/ag/agn/nutrition/profiles_by_country_en.stm
	FAO Country profiles	http://www.fao.org/countries/
	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/WHO	Nutrition Landscape information system (NILS)	http://apps.who.int/nutrition/landscape/report.aspx
	WHO Globl Infobase	https://apps.who.int/infobase/Indicators.aspx
	WHO Health Profile	http://www.who.int/gho/countries/syc.pdf
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
	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	Ministeral nutrition policy	www.health.gov.sc.
National Sources	National food and nutrition policy	*When available*

I. Context–Food and nutrition situation

General Indicators		*Sources/Year*
Population below international poverty line of US$1.25 per day	0.3%	UNDP (HDI/2013)
Under-five mortality rate (per 1,000 live births)	14	UNDP (HDI/2013)
Infant mortality rate (per 1,000 live births)	12	UNICEF (2011)
Primary causes of under-five deaths (list the 3 main causes): - prematurity -congenital anomalies - diseases (other than asphyxia, pneumonia, injuries, neonatal sepsis, diarrhoea, HIV/AIDS, malaria and measles)	 27% 25% 25%	WHO (Health Profile 2010)
Maternal mortality rate /100 000 lively births	57	UNICEF (2004)
Primary school net enrolment or attendance ratio (%)	99	UNICEF (2004)
Primary school net enrolment -ratio of females/males	100	UNICEF (2008-2011)
HIV/AIDs prevalence between adults 15-49 years		
Percentage of population living in rural areas	46%	World Bank (WDI/2011)
Access to improved drinking water	~ 100	WHO (Health Profile 2010)
Access to improved sanitation	~ 100	WHO (Health Profile 2010)
Agro-nutrition indicators		*Sources/Year*
Land area (1000 Ha)	46	FAOSTAT (2011)
Agricultural area (1000 Ha)	3	FAOSTAT (2011)
Food Availability and consumption		
Average dietary energy requirement (ADER)	2160 kcal/day	FAOSTAT Country Profile (2006-2008)
Dietary energy supply (DES)	2400 kcal/day	FAOSTAT Country Profile (2006-2008)
Total protein share in DES	13.8%	FAOSTAT Country Profile (2006-2009)
Fat share in DES	26%	FAOSTAT Country Profile (2006-2009)
Average daily fruit consumption (excluding wine) (g)		
Average daily vegetable consumption (g)		

Geography, population & human development

The Republic of Seychelles is composed by 115 islands spanning an archipelago in the Indian Ocean, approximately 1,500 km east from the African coast, northeast of Madagascar. It has no indigenous people and the current population - estimated of 90,000 people, the smallest of any African State and mostly concentrated in Mahé - is composed by descendent of African, French, Indian and Chinese immigrants.

Seychelles is classified as an upper middle income country (World Bank List, 2012) with a GDP of US 1.01 billion dollars per capita. This upper-middle income country has the second highest GDP in Africa, and the highest HDI (ranked 46 of 187 nations). However, it also has the highest inequality in the world, as measured by Gini Index. Seychelles being a small island state has unique characteristic and is vulnerable to economic, social and environmental challenges. Considering Seychelles constraints such as its size, remoteness and lack of natural resources, the country has reached most of its MDGs specifically in the fields of health, education, poverty eradication and environment.

Economic Development

Tourism and fishing are the most important sectors, engines of growth and those which attract most FDI. In the last years, as a result of the financial food and fuel crisis, the rupee depreciation and the global recession, tourism revenues and FDI have fallen, growth has slowed down and inflation has increased. Hit by a huge balance of payment and debt crisis in 2008 the country sought the IMF's assistance. An emergency stand-by agreement was accepted, requiring the Government to implement some major structural economic reforms. According to the IMF, Seychelles has made remarkable strides, quickly restoring macroeconomic stability and creating room for private-sector activity. Debt restructuring is nearly complete.

Agriculture represents only 2% of the country's economy and the sectoral employment has declined steadily in the last two decades, as well as the food and agricultural per capita production, as rural population has moved to other sectors. The economic importance of the agricultural sector has diminished over the past decades. One of the main economic pillars in the country is its fisheries sector principally focused on industrial fishing .

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

The main farming systems in the Seychelles are registered commercial farmers and household gardens. Production of local vegetables and fruits decreased from 65% in 1995 to 54% in 2011 and 50% in 2012. The sector is characterized by rain-fed production and relatively low levels of productivity. Coconuts, vegetables and bananas are the main crops produced in terms of volume, while nuts and prepared fruit are the main export crops based on value.

The fishing industry is highly developed: tuna export represents the first source of foreign exchange, but fluctuations in fish stocks and the incursions of Somali pirates constitute a constant threat.

Local poultry production fell from 80% in 2008 to 10% in 2012. This fall has been due to the WTO demands to drop tariffs and taxes on imported foods in 2008 hence imported poultry from Brazil, France, Denmark and UAE is much cheaper.

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

Food and nutrition security is one of the most important pillars for economic growth and sustainable development in Seychelles. The government has committed itself to allow all Seychellois to have a sustainable supply of nutritious, affordable and safe foods. Agricultural land is scarce, local food production is limited and the country is a food net importer. In 2009, 100% of the wheat, rice, and maize consumed domestically was imported. In 2011 food imports totalled to $87.79 million whereas exports totals to $ 40.88 where 91% was attributable to fish products.

The traditional diet is based on high consumption of fish, rice and vegetables coupled with highly processed imported foods. Changing lifestyle has led to consuming high sugary, high fat foods along with other factors has lead to drastic increase in non communicable diseases. This has had an effect on the national budget on health care and welfare.

Hence Seychelles is becoming nutritionally insecure, a threat to sustainable economic development mainly through its impact on children's learning abilities, high and unsustainable adult health and welfare support coupled with disruption of social harmony.

Main causes of malnutrition in Seychelles

-Vulnerability to natural disasters and food price shocks due to high food imports
-Nutrition transition with overweight and obesity becoming a public health problem

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

Overweight and obesity are associated with non communicable diseases –
which accounted for 74% of total deaths across all age groups in 2008 –
and, most prominently, with cardiovascular diseases –
which accounted for 32% of total deaths in the same year (WHO data).

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

Agro-Nutrition Indicators (continued)		*Sources/Year*
Nutritional Anthropometry (WHO Child Growth Standards)		
Prevalence of stunting in children < 5 years of age	N/A	
Prevalence of wasting in children < 5 years of age	N/A	
Prevalence of underweight children < 5 years of age	N/A	
% of underweight adults (15-49 years) (BMI < 18.5 kg/m²)	N/A	
% of overweight adults(25-64 years) (BMI ≥ 25. kg/m²)	60%	Seychelles Heart Study (2004)
Prevalence of obesity - Youth (5-15 years old) - Women (25-64 years old) - Men (25-64 years old)	 5.7% 34% 52%	Bovet et al.2008

Agro-nutrition indicators (continued)		*Sources/Year*
Infant feeding by age		
Children (0-6 months) who are exclusively breastfed	2%	Breastfeeding Analysis 2012
Children (6-9 months) who are breastfed with complementary food	46%	Breastfeeding Analysis 2012
Children (9-11 months) who are using a bottle with a nipple	N/A	
Children (18-23 months) who are still breastfeeding	12%	Breastfeeding Analysis 2012
Prevalence of micronutrient deficiencies		
Prevalence of vitamin A deficiency among pre-school children	N/A	
Prevalence of vitamin A deficiency among pregnant women	N/A	
Prevalence of anemia among pre-school children		
Prevalence of anemia among women (15-49 years)		
Prevalence of iodine deficiency among pregnant women	N/A	
Prevalence of goiter among school children	N/A	
Coverage rates for micronutrient-rich foods and supplements intake		
% Households consuming adequately iodized salt (≥ 15ppm)	N/A	
Vitamin A supplementation coverage rate (6-59 months)	N/A	
Vitamin A supplementation coverage rate (≤2 months postpartum)	N/A	

Nutritional Situation[i]

Undernutrition is no longer considered a major public health problem in the Seychelles. Instead one of the leading public health problems in the country is over nutrition. As other rapidly growing country, the Seychelles are experiencing a nutrition transition characterized by a decreasing consumption frequency of traditional staple food (fish, cassava, sweet potatoes and breadfruit) and increased consumption frequency of rice meat, poultry, densely packed snacks full of fat, sugar and salt. It is very important to note that food utilization also has its role. For example cultural habits and norms of cooking involve deep frying fish which in turn sharply elevates the fat content in the diet. Consumption of fruits and vegetables remain strikingly low and when vegetables are consumed they are often boiled for a very long time losing all its nutrients.

This has had an effect on the population with an increase prevalence of overweight and obesity both among adult and children. The latest study shows that over 60% of the adult population is overweight and 22% of children are overweight. This has had an impact on the prevalence of non communicable diseases where disease of the cardiovascular system is the leading cause of death in Seychelles and it accounts for 40% of deaths. followed by diabetes and hypertension where rates are at 14% and 40%.NCD, and particularly CVD, are strongly related to a few lifestyles and physiological risk factors. Detrimental lifestyles include smoking, unhealthy nutrition and sedentary habits. Physiological risk factors, which are strongly linked to lifestyles, include overweight, high blood pressure (HBP), blood lipid disorders (e.g. high blood cholesterol) and diabetes. It is well established that up to 80% of cases of premature CVD, and a substantial proportion of other chronic diseases (e.g. lung cancer, renal failure) could be prevented or delayed if these few risk factors were kept at favorable levels throughout life in the population, using strategies targeting both the entire population and high risk individuals.

Moreover the Seychelles Child Development study found that pregnant mothers were not obtaining their optimum nutritional needs during pregnancy. (Bonham, 2009) At the moment research is limited in the nutrition unit and yet has not been any study on the micronutrient deficiencies in the country.

Malnutrition and food insecurity spreads across the small island state and despite their not being any study done to see malnutrition levels by region it is not expected to be significantly important given its small setting.

Infant feeding

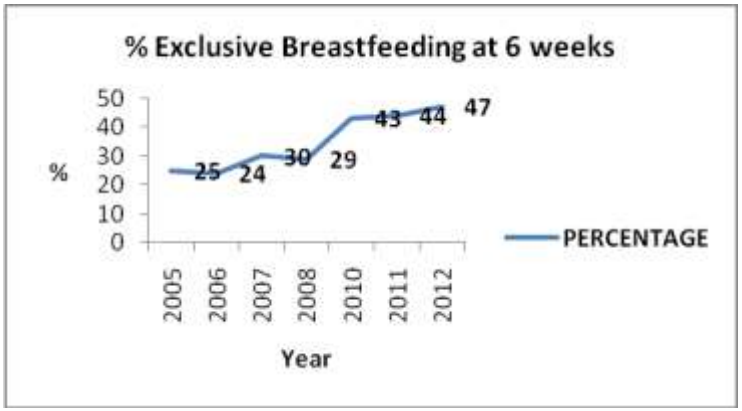
According to a national Breast Feeding Evaluation, the exclusive breastfeeding rate on the country's maternity wards was only 58% in 2008. The following year, the rate increased by 4% and in 2010 reached 78%

In April 2011 it was launched the "Baby Friendly Hospital Initiative", to combat irresponsible advertisement of baby formula and further increase exclusive breastfeeding. This policy has definitely had an impact on the rate of exclusive breastfeeding at birth raising up to 94% in 2012.

The breastfeeding analysis recently carried out by the nutrition unit states that in 2012 the most prevalent feeding mode at 6 weeks post-partum in 2012 was partial breastfeeding at 52% followed by exclusive breastfeeding at 47%. Only 1% of babies were formula feeding at 6 weeks old. Furthermore the data collected highlighted that 9% of babies had been introduced with foods at 6 weeks this being a huge point of concern. Exclusive breastfeeding at 6 weeks post-partum is most prevalent amongst the group of unemployed women at 39% followed by those employed by private sector at 31% and those employed by government at 29%. Those mothers who are self- employed have the lowest rate of breastfeeding at 1%.

The rate of exclusive breastfeeding has dropped from 47% to 2%. Partial breastfeeding has increased to 69% and formula feeding has sharply increased from 0.6% to 26%. At 6 months 3% of mothers have introduced cows milk as feeding option. As expected there is no mother exclusively breastfeeding her child at 12 months. Partial breastfeeding still remains the highest infant feeding mode at 46% followed by formal milk at 41%. Only 13% of infants are given cows milk. At 24 months only 12% of children still partially breastfed. The most prevalent feeding mode is cow's milk at 63% followed by infant formula at 25%.

There has been a general increase of exclusive breastfeeding from 2005 to 2012. Since 2005 exclusive breastfeeding at 6 weeks postpartum has nearly doubled from 25% in 2005 to 47% in 2012. Despite this positive trend there was only a slight increase from 44% in 2011 to 47% in 2012.



Care practices and sociocultural issues

National food security and nutrition information system

One of the main food and nutrition information system is the Seychelles Heart Study that was last carried out by the Unit For Prevention of Cardiovascular diseases in 2004 and at the moment ongoing for the year 2013. The results of the Seychelles Heart Survey 2004, which can be compared with similar population-based data in 1989 and 1994, provide a useful tool for assessing national health objectives, for identifying and characterizing risk populations, and for designing and evaluating health care services as well as health promotion and disease prevention programs and policies. The 2004 data indicate a continued need to further 1) strengthen health promotion and prevention programs to promote healthy lifestyles in the general population -in order to reduce new cases of chronic diseases- and 2) improve health care to patients with chronic conditions such as HBP or diabetes -in order to reduce complications of these conditions-. The data also provide quantifiable information for measuring progress towards achieving these goals at national level. This system collects data disaggregated by gender and age and identifies vulnerable groups within the population.

Then nutrition unit also collects regular information on the prevalence of overweight and obesity and statistics are pulled together on a monthly basis. This data is collected on an individual level hence gender, age and employment status is accounted for.

To tackle specific issues concerned overweight and obesity the presence of the national school nutrition policy ensures efforts to utilize schools as sites for improving the nutritional well-being of all school children. It can provide a framework for implementing nutrition strategies which would ensure that students receive nutrition education messages that are reinforced throughout the whole of the school environment.

The policy will be used to coordinate all aspects of school nutrition including the curriculum, the school tuck shop, provision of school meals, and training of school personnel, establishing linkages with families and school personnel as well as evaluation.

Moreover the role of the nutrition unit is to carry out on a yearly basis an analysis of breastfeeding to ensure the accreditation of the baby friendly hospital initiative. The data collection has its limitations as often data collected at health centre level is not accurate where dates of assessment and birth are not complete, poor handwriting and misuse of abbreviations.

Malnutrition and Food insecurity levels by region

Maps sources

Map: Prevalence malnutrition / food insecurity/ other indicators of nutritional status among regions

II. Current strategy and policy framework for improving food security and nutrition

Strategy / Policy	*Reference Period*	*Objectives and main components*	*Budget / Donor*	*Stakeholders*	*Key points*	*Integration of Nutrition*
STRATEGIC FRAMEWORK						
Medium Term National Development Strategy (MTNDS)	2013-2017	The priority is to reduce vulnerability, increase resilience and provide the basis for a sustainable development. This requires action in five main areas: climate change, renewable energy and water; human resource development; economic infrastructure; food security, trade and diversification; development of national statistics. Furthermore there are national agricultural production targets for the main food items consumer locally.	*To be determined*	multi stakeholder	Implementation of the Seychelles CAADP Compact will be reflected under the Food Security, Trade and Diversification component of the overall strategy	
AGRICULTURE						
The Agricultural Development Strategy 2007-2011		• Human resource development and training for crop and livestock production • Livestock development • Agricultural inputs and supply • Crop development • Agricultural land use and management				None

Strategy / Policy	*Reference Period*	*Objectives and main components*	*Budget / Donor*	*Stakeholders*	*Key points*	*Integration of Nutrition*
The Food Security Strategy 2008-2011		- Agricultural land management - Agricultural Inputs and supply - Agricultural Infrastructure - Institutional support - Human resource development				None
FOOD SECURITY						
National food and nutrition policy	2012-2015	The Seychelles Food and Nutrition Security Policy (FNSP) is specially developed to align and strengthen the county's capacity and ability to deliver on its food and nutrition security objectives and targets in a manner that ensures efficiency and sustainability in resource use, able institutions and human capacity and resilience in the face of internal and external shocks as well as progressive change in key parameters such as population size. Specifically, the policy will enable Seychelles Government to provide leadership with regard to: i. ensuring program and investment interventions that are consistent and supportive of short and long term development and growth priorities, goals and objectives ii. ensuring coordination, coherence and comprehensiveness in strategies and programs on food and nutritional security iii. Strengthening resilience and capability within Seychelles' internal systems to anticipate and respond to internal and external shocks and changes in the food systems, including weather and climate change extremes, price volatility, etc…		Multi stake holder	Implementation of CAADP will facilitate the process	

Strategy / Policy	*Reference Period*	*Objectives and main components*	*Budget / Donor*	*Stakeholders*	*Key points*	*Integration of Nutrition*
		iv. strengthening accountability in food and nutrition security support and facilitating systems including inclusive decision making and reinforcement of collective responsibility among the various players and stakeholders				
NUTRITION						
School Nutrition Policy	2008 – ongoing	To improve the nutritional well-being of school children in Seychelles through a school environment conducive to healthy eating. Objectives: a) To implement nutrition education from crèche through to secondary schools as part of a sequential comprehensive school curriculum; b) To harmonize the school's food provision and environment with nutrition education in the curriculum; c) To build the capacity of staff involved in nutrition education and provision in the principles of healthy eating; d) To involve the Parent's Teachers Association and the community in supporting and reinforcing nutrition education and e) To provide a tool to ensure the school's compliance to promoting healthy eating.	Joint ministry of health and education	Ministry of Health Ministry of education		
Seychelles Dietary Guidelines	Ongoing	These guidelines aim to help people understand and enjoy healthy eating.	Ministry of Health	Ministry of Health	Despite the main implementer being the Ministry of Health all relevant partners use these guidelines as basis for nutrition and healthy lifestyle education	

Strategy / Policy	*Reference Period*	*Objectives and main components*	*Budget / Donor*	*Stakeholders*	*Key points*	*Integration of Nutrition*
Infant Feeding Policy	2010-Ongoing	Aim: To improve, through optimal feeding, the nutritional status, growth, development and health of infants in Seychelles. Objectives: -To ensure that the health advantages of breastfeeding are discussed with all women and their families as appropriate, so that they can make an informed choice about how they will feed their babies. -To implement best practice standards for breastfeeding. The UNICEF/ WHO Baby Friendly Hospital Initiative's Ten Steps to Successful Breastfeeding for Maternity Services are recognized as standard statements. We aim to provide best practice in the promotion and support of breastfeeding. -To create a conducive environment for women to breastfeed their babies; and where women are given support and information to enable them to breastfeed exclusively for 6 months, and then as part of their infant's diet through the first year, and beyond if they wish. -To enable all health staff who cares for mothers and their baby to provide accurate information about the benefits and management of breastfeeding; and to enable staff to support women to breastfeed their children confidently and successfully. -To foster liaison with all health care professionals to ensure a seamless delivery of	Ministry of Health	Ministry of health	Despite the main implementer being the ministry of health this policy should be used as an example to promote breastfeeding nationally	

Strategy / Policy	*Reference Period*	*Objectives and main components*	*Budget / Donor*	*Stakeholders*	*Key points*	*Integration of Nutrition*
		care, together with the encouragement and support of a breastfeeding culture throughout the local community. -To increase the incidence and duration of both exclusive and continued breastfeeding in Seychelles.				
Ministerial Nutrition Policy	2008-ongoing	The policy is aimed at promoting an environment conducive to and supportive of healthy eating habits amongst the health workers. This policy has been produced to guide all staff of the ministry of health and social development and outside caterers responsible for the provision of food in the premises of the ministry of health.	Ministry of Health	Ministry of Health	This policy provides food recommendations for the following: foods served in meetings, food served during ministerial functions, hospital canteen, hospital shop and vending machines.	

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...)

National Food and Nutrition Policy

The Seychelles Food and Nutrition Security Policy (FNSP) is specially developed to align and strengthen the county's capacity and ability to deliver on its food and nutrition security objectives and targets in a manner that ensures efficiency and sustainability in resource use, able institutions and human capacity and resilience in the face of internal and external shocks as well as progressive change in key parameters such as population size.

The National Food and Nutrition Security Policy is an essential and integral part of the Seychelles Government/WHO strategy "Health for All". Food Security and Nutrition policies are necessary to ensure that the population has access to adequate, safe and healthy foods and to maintain optimal nutritional status of the population. It is therefore pivotal that Seychelles has its own food and nutrition policy, which reflects the local culture and economic climate.

The National Food Security and Nutrition Policy will be the key instrument in helping and guiding Government to translate its constitutional obligations to support and facilitate right to food for its people.

There are sections of the community who for various reasons, and not necessarily and always emergencies, require special support to ensure continued access to food. Most critical and highly vulnerable groups include pregnant women, under five year old babies, school going children especially in the earlier years of schooling and the elderly.
Therefore, within the context of safety nets and other strategies, the Government will review existing legislation, initiatives and programs to ensure that all the likely vulnerable groups have got fallback arrangements for continued food and nutrition security. This will also relate to health and medical support provisions and initiatives. Food and nutritional aspects related to people with HIV/Aids and those on ARVs will be reviewed as many of these people may not be able to afford desired levels of nutrition

National School nutrition Policy

The National School Nutrition Policy represents efforts to utilize schools as sites for improving the nutritional well-being of all school children. It can provide a framework for implementing nutrition strategies which would ensure that students receive nutrition education messages that are reinforced throughout the whole of the school environment. The school environment is known to powerfully influence students' attitudes, preferences and behaviours and as such can promote and positively support healthy eating.

The policy will be used to coordinate all aspects of school nutrition including the curriculum, the school tuck shop, provision of school meals, and training of school personnel, establishing linkages with families and school personnel as well as evaluation. The policy will have a very wide reach, targeting not only students but also teachers, school personnel, families and other community members, all of which are directly or indirectly part of the school community.
Healthy eating pattern in childhood is vital in promoting health; growth, development and helping children attain their full educational potential. Diet is also a key in preventing both numerous short-term and long-term diet related diseases in child and adulthood.
Diet is a known risk factor for the development of non-communicable diseases (NCDs) including coronary heart diseases, stroke and cancer all of which have their origins in early life and childhood.

Adequate nutrition is also necessary for children to become fit and productive adults, capable of fulfilling their responsibilities in life. Although we do not have statistics confirming the rate of under-nutrition in our children, a few cases of both micro- and macronutrient deficiencies have been detected. These have been shown to affect school aptitudes, time for school enrolment, concentration and attentiveness in early childhood. Children with a history of severe undernourishment perform less well on tests of IQ and specific factual knowledge than children in matched comparison groups. Undernourishment also impairs the ability to concentrate, learn and attend school regularly. A child who is malnourished and subsequently suffering from poor health cannot adequately take advantage of instructional and learning materials. Thus, good nutrition is needed to strengthen the learning potential of children, to enable them to learn effectively and maximize investments in education. Good health and nutrition are needed for concentration, regular school attendance and optimum class performance. Studies in different countries show that the academic performance and mental ability of pupils with good nutritional status are significantly higher than those of pupils with poor nutritional status.

Poor dietary choices including over-consumption of poor nutrient dense foods can also lead to the development of other conditions such as iron deficiency anaemia and dental caries. Anaemia carries implications for both mental and physical performance all of which impinge greatly on school performance. High intakes of sugary foods and drinks can contribute hugely to dental caries and obesity.

Main Goal:
To improve the nutritional well-being of school children in Seychelles through a school environment conducive to healthy eating.

Objectives:

f) To implement nutrition education from crèche through to secondary schools as part of a sequential comprehensive school curriculum;
g) To harmonize the school's food provision and environment with nutrition education in the curriculum;
h) To build the capacity of staff involved in nutrition education and provision in the principles of healthy eating;
i) To involve the Parent's Teachers Association and the community in supporting and reinforcing nutrition education and
j) To provide a tool to ensure the school's compliance to promoting healthy eating.

Outcomes:

a) Integration of nutrition education that is in line with the Seychelles Dietary Guidelines in a sequential and comprehensive school curriculum;
b) Improved school's food provision and environment that is harmonized with nutrition education in the curriculum;
c) Staff involved in nutrition education and provision trained on the principles of healthy eating;
d) Nutrition education supported and reinforced by the Parent's Teachers Association and the community;
e) Tool to ensure the school's compliance to promoting healthy eating;
f) Increase in nutrition-related activities at school level;
g) Reduction in diet-related problems amongst school children (dental caries, obesity…).
h) Advertisement/ promotion of food or drink in accordance with the Seychelles Dietary Guidelines.

The target population is specifically children in schools and the policy covers all school at national level with exception for the international school. All schools are vulnerable to malnutrition hence this policy corresponds to all vulnerable children present in schools.

Monitoring and evaluation will be done through the school nutrition committee where monthly visits will be carried out to the school to ensure the compliance of the school nutrition policy. A specific evaluation tool has been designed by the school nutrition committee that evaluates the policy at all levels.

Seychelles Dietary Guidelines

Good nutrition is critical to the maintenance of good health and in promoting healthy growth and development. Presently the main causes of morbidity mortality in Seychelles are accounted for by non-communicable diseases (NCDs) all of which have witnessed steep increase over the past decades. Currently 63.5% of the adult population are obese and around 16% of school children are categorized as overweight. A recent survey (Heart Study, 2004) concluded that the dietary habits of the Seychellois population are highly refined, poor in fruit and vegetables and becoming higher in saturated fats all of which are conducive to promoting NCDs. In order to reverse this trend, it is imperative that lifestyle changes are initiated at population level.
It is in this light that a set of 16 dietary guidelines has been developed for the Seychellois population. These guidelines are to be used as a complete set an no one guideline should be used in isolation.
These guidelines aim to help people understand and enjoy healthy eating.
The ministry of health is the main implementer of these guidelines however other sectors across the country are using these guidelines to guide nutrition education
Since the introduction of the Seychelles Dietary guidelines various projects and policies such as the school nutrition policy are using these guidelines as the basis for the guidance of nutrition education. Also these guidelines have been important tools for all educators including nutritionists, nurses, doctors, teachers, social workers, food caterers and manufactures, the media and may more. This shows that these guidelines have been very successful in their dissemination as it has reached groups throughout the country.

Infant Feeding Policy

Breastfeeding is known to be the unequalled way of providing ideal food for the healthy growth and development of infants. As a global public health recommendation, infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Thereafter, infants should receive nutritionally adequate and safe complementary foods to meet their growing nutritional requirements while breastfeeding continues for up to two years of age or beyond. Exclusive breastfeeding from birth is possible except for a few medical conditions, and unrestricted exclusive breastfeeding results in ample milk production. Even though it is a natural act, breastfeeding is also a learned behaviour. Virtually all mothers can breastfeed provided they have accurate information, and support within their families and communities and from the health care system. They should also have access to skilled practical help from, for example, trained health workers, lay and peer counsellors, and certified lactation consultants, who can help to build mothers' confidence, improve feeding technique, and prevent or resolve breastfeeding problems.

The HIV pandemic and the risk of mother-to-child transmission of HIV through breastfeeding pose unique challenges to the promotion of breastfeeding, even among unaffected families. An estimated 1.6 million children are born to HIV-infected women each year, mainly in low-income countries. The absolute risk of HIV transmission through breastfeeding for more than one year – globally between 10% and 20% – needs to be balanced against the increased risk of morbidity and mortality when infants are not breastfed.

In April 2011 the "Baby Friendly Hospital Initiative" was launched, to combat irresponsible advertisement of baby formula and further increase exclusive breastfeeding. This policy has definitely had an impact on the rate of exclusive breastfeeding at birth raising up to 94% in 2012. The policy constitutes of the following:

Aim:

To improve, through optimal feeding, the nutritional status, growth, development and health of infants in Seychelles.

Objectives:

1. To ensure that the health advantages of breastfeeding are discussed with all women and their families as appropriate, so that they can make an informed choice about how they will feed their babies.
2. To implement best practice standards for breastfeeding. The UNICEF/ WHO Baby Friendly Hospital Initiative's Ten Steps to Successful Breastfeeding for Maternity Services are recognized as standard statements. We aim to provide best practice in the promotion and support of breastfeeding.
3. To create a conducive environment for women to breastfeed their babies; and where women are given support and information to enable them to breastfeed exclusively for 6 months, and then as part of their infant's diet through the first year, and beyond if they wish.
4. To enable all health staff who cares for mothers and their baby to provide accurate information about the benefits and management of breastfeeding; and to enable staff to support women to breastfeed their children confidently and successfully.
5. To foster liaison with all health care professionals to ensure a seamless delivery of care, together with the encouragement and support of a breastfeeding culture throughout the local community.
6. To increase the incidence and duration of both exclusive and continued breastfeeding in Seychelles.

The infant feeding policy is targeted at infant and mothers as often these groups are vulnerable in their nutritional status. Monitoring and evaluation will be carried down on a year basis based on the breastfeeding analysis at both maternity and community level.

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

Funding opportunities

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

Monitoring & Evaluation mechanisms

Main population groups targeted & localisation

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

A multi-sectoral arrangement would coordinate and monitor the implementation of the NFSNS. Since many departments will be involved, a National Food and Nutrition Security Steering Committee (NFNSSC) will coordinate the participation of all stakeholders in the implementation of food and nutrition security programs in the country. This would help ensure appropriate linkages among diverse sectors so that each would contribute to achieving immediate and longer-term strategic objectives.
The Steering Committee will meet on a regular basis. The participants will include elected members from the private sector, NGOs and international organization and civil society.
The mandate of the Steering Committee will be to:

1. Promote broad, multi-sectoral coordinating mechanisms and response to food security and nutrition issues.
2. Ensure the integration of the response to emergency food insecurity problems with response to chronic food insecurity.
3. Oversee national plans, programs and projects that promote food security and nutrition.
4. Guide an effective and efficient mechanism for monitoring the implementation of the NFNSP, ensuring a two-way (bottom-up and top-down) free flow of information.
5. Serve as an advisory body to the government on issues relating to food and nutrition and how to meet its international commitments.
6. Provide guidelines for planning, implementing and evaluating the National Food and Nutrition Action Plan.
7. Undertake coordination with stakeholders and provide all the necessary information to stakeholders.
8. Receive and review monitoring reports of food security programs and projects.
9. Create and manage a databank on food security and nutrition interventions.

Disaster prevention/management structures

Monitoring and Evaluation capacities

Main technical and financial partners

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

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

Main management and technical capacities at the institutional level

The statistical capacity of the country needs to be strengthened.

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). *Source : SUN Progress report 2011*
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 oedema, 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
ECCAS	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

[i] 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.