



ANTIGUA AND BARBUDA FOOD AND NUTRITION SECURITY POLICY

**A FOOD AND NUTRITION SECURITY POLICY
FOR ANTIGUA AND BARBUDA**

Prepared by

THE GOVERNMENT OF ANTIGUA AND BARBUDA

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TABLE OF CONTENTS

	Page
LIST OF TABLES	IV
ACRONYMS	V
PREFACE	VII
SECTION I EXECUTIVE SUMMARY	IX
SECTION II INTRODUCTION	1
SECTION III SITUATIONAL ANALYSIS	3
3.1 Physical Characteristics	3
3.2 Population	3
3.3 Food Availability	4
3.4 Food Accessibility	15
3.5 Food Utilization/Nutritional Status	19
3.6 Stability of Food Supply	26
SECTION IV ISSUES AND PRIORITY AREAS OF FOCUS FOR FOOD AND NUTRITION POLICY	28
4.1 Regional and International Context	28
4.2 Critical Food and Security Issues	32
4.3 Guiding Principles	34
SECTION V FOOD AND NUTRITION SECURITY POLICY	36
5.1 Introduction	36
5.2 Vision and Strategic Objectives of the Antigua and Barbuda Food and Nutrition Security Policy	36
5.3 Food Availability	37
5.4 Food Accessibility	
5.5 Food Utilization/Nutritional Status	50
5.6 Stability of Food Supply	57
SECTION VI INSTITUTIONAL FRAMEWORK	61
6.1 Overview	61
6.2 Current Institutional Framework	62
6.3 Proposed Institutional Framework	64

LIST OF TABLES

	Page
Table 3.1: Summary of Vegetable Production in Antigua and Barbuda 2008 -2010 - MT (Metric Tons)	5
Table 3.2: Animal Population of Antigua and Barbuda: 2010	6
Table 3.3: Meat Output Index for the Livestock Sub-sector: 2001-2011	6
Table 3.4: Antigua and Barbuda: Annual Production of Fish: 2001-2011	7
Table 3.5: Ten Leading Causes of Death in Antigua and Barbuda: 2006 – 2010	21
Table 3.6: Reported Cases of Diabetes and Hypertension: 2008 – 2010 (Community Clinics only)	22
Table 3.7: Overweight and Obesity in Adults 20 years and over attending Clinics (2003-2010)	25
Table 3.8: Impact of Natural Hazards on the Agricultural Sector and Economy of Antigua and Barbuda (1989 – 2010)	27
Table 4.1: Jagdeo Initiative (JI) Nine (9) Key Binding Constraints (KBCs)	30
Table 6.1: Institutional Framework for Food and Nutrition Security	63

ACRONYMS

AED	-	Agriculture Extension Division
AIDS	-	Acquired Immune Deficiency Syndrome
APUA	-	Antigua Public Utilities Authority
ARTI	-	Acute Respiration Tract Infection
BMI	-	Body Mass Index
CARDI	-	Caribbean Agricultural Research and Development Institute
CARICOM	-	Caribbean Community
CARPHA	-	Caribbean Public Health Agency
CBH	-	Central Board of Health
CBOs	-	Community-Based Organizations
CCOPE	-	Collaborative Committee for the Promotion of Emotional Health in Children
CDB	-	Caribbean Development Bank
CFNI	-	Caribbean Food and Nutrition Institute
CHCC	-	Community Health Centres and Clinics
CMC	-	Central Marketing Corporation
CROSQ	-	CARICOM Regional Organization for Standards and Quality
CWD	-	Citizens Welfare Division
DCA	-	Development Control Authority
DIU	-	Drug Information Unit
ECCB	-	Eastern Caribbean Central Bank
EHD	-	Environmental Health Department
EPM	-	Energy Protein Malnutrition
EU	-	European Union
FAO	-	Food and Agriculture Organization
FBOs	-	Faith-Based Organizations
FNSP	-	Food and Nutrition Security Policy

GARDC	-	Gilbert Agricultural and Rural Development Center
GDP	-	Gross Domestic Product
Hb	-	Haemoglobin
HIV	-	Human Immunodeficiency Virus
IICA	-	Inter-American Institute for Cooperation on Agriculture
MBS	-	Medical Benefits Scheme
MSJMC	-	Mount St. John's Medical Center
NCDs	-	Non-Communicable Diseases
NGOs	-	Non-Government Organizations
NODS	-	National Office of Disaster Services
NPAFNS	-	National Plan of Action for Food and Nutrition Security
NSWMA	-	National Solid Waste Management Authority
OECS	-	Organization of Eastern Caribbean States
PAHO	-	Pan American Health Organisation
PLHIV	-	Persons Living with HIV and AIDS
STIs	-	Sexually Transmitted Infections
UWIDEC	-	University of the West Indies Distance Education Centre

PREFACE

The development of the Antigua and Barbuda Food and Nutrition Security Policy (FNSP) has a relatively long history. The first policy was formulated in 2006 but since then, several new developments and food and nutrition concerns have emerged necessitating a review of the policy. This document builds on the past lessons learned and incorporates the new information and approaches with the aim of addressing the current and foreseeable critical food and nutrition problems of the country.

During the early eighties, Antigua and Barbuda, like other Caribbean countries, began experiencing nutrition and epidemiological transitions, which resulted in an increase in the severity of obesity and Non-Communicable Diseases (NCDs) including hypertension, diabetes and some forms of cancer. These problems were further recognized and highlighted at several high-level decision making fora in the Region. The 1996 Bahamas Declaration of the region's Ministers of Agriculture asserted that "Food and nutritional security in the Caribbean is also related to chronic nutritional life style diseases (NCDs) such as obesity, stroke and heart attack." The 2007 Heads of Government Declaration of Port of Spain also committed "to [providing] critical leadership required for implementing...agreed strategies for the reduction of the burden of Chronic, Non-Communicable Diseases..." Similar policy statements were made in the St. Ann's Declaration by Caribbean Ministers of Agriculture at Runaway Bay, Jamaica, in November 2007.

These Declarations explicitly recognized the relationship between food, nutrition and health, and the Region's main food and nutrition problems (obesity, NCDs and micronutrient deficiencies), and mandated an integrated, multi-sectoral approach to the achievement of food and nutrition security. Additionally, the CARICOM Secretariat formulated a Regional Food and Nutrition Security Policy (RFNSP), a Regional Food and Nutrition Security Action Plan (RFNSAP), a Community Agricultural Policy and a Regional Agri-Business Strategy, all of which aim at adding value to national policies that seek to address critical food and nutrition problems.

At the time of the endorsement and approval of the RFNSP, the Council for Trade and Economic Development (COTED) stressed the need for both the RFNSP and RFNSAP to be underpinned by national FNS policies and programmes in each Member State so as to ensure consistency among them as well as between them and the RFNSP. In this context, COTED commended the Food and Agriculture Organization (FAO) for its commitment to the issue of Food and Nutrition Security in the Region and its readiness to extend support to Member States, at their request, under the regional Technical Cooperation Programme Facility (TCPF), for the preparation of national FNS policies and strategies. The TCPF's have been approved by FAO for the preparation of policies and strategies in Barbados and Grenada. It is within this context that this current preparation (review and

adjustment) of the Antigua and Barbuda Food and Nutrition Security Policy is taking place.

The earlier policy examined the critical food and nutrition problems of Antigua and Barbuda in light of the eight thematic areas identified by the 1992 International Conference on Nutrition and sought to strengthen the multi-sectoral approach to addressing the food and nutrition security problems of the country. This current policy framework incorporates those eight thematic areas under the four pillars of food and nutrition security, viz: (1) Availability, (2) Accessibility, (3) Utilization/Nutritional Status and (4) Stability of Supply. This restructuring of the Antigua and Barbuda FNS Policy effectively aligns with the Regional Food and Nutrition Security Policy with the aim of benefitting from the latter's technical and financial dispensations, and addressing, in a more focused way, the problems of NCDs and other food and nutrition problems.

SECTION I:

EXECUTIVE SUMMARY

1 EXECUTIVE SUMMARY

This Policy targets the critical food and nutrition security problems in Antigua and Barbuda. An analysis of the current situation has indicated that these problems relate to all four components of food and nutrition security, viz., Availability, Accessibility, Consumption/Utilization and Stability of supply. With respect to Food Availability, the data reveal that while total food energy is available to meet population food energy goals, the country faces an under supply of staples, vegetables and legumes and an over-supply of energy from foods from animals, oils/fats, and sweeteners. Food imports in 2011 were EC\$ 240.64 million compared to EC\$130.65 million in 2001, an increase of 84.2% over eleven (11) years.

The constraints to food availability include: low productivity, short-term land tenures, inadequate water supply, difficulty in accessing credit, loss of arable lands to housing construction, lack of storage facilities, high labour and energy costs, persistent praedial larceny, and over-exploitation of marine food sources. The Policy will address these constraints and align food availability with recommended per capita food consumption targets through specific strategies and interventions in domestic food production and food imports.

With respect to Food Accessibility, high food prices and unacceptable levels of poverty constrain the access of households to foods. The latest poverty data from the 2007 Survey of Living Conditions indicate that 13.5% of households fall into the category of ‘absolute poverty’, 4.4% are food poor, and 20.7% are vulnerable to poverty. While the cost of basic ingredients for well-balanced 2,400 kilocalorie diets was well within the capability of the individuals earning the minimum wage, more recent price increases indicate the necessity for upward adjustments to the minimum wage scale.

Evidence suggests that social safety nets are inadequate, especially for vulnerable groups such as senior citizens, single mothers and persons with HIV/AIDS. Factors contributing to this vulnerability include incomplete and limited education, low socio-economic status, and

a lack of skills. Inadequate capacity of caregivers and limited financial and human resources exacerbate the situation. There is need for data that can generate more accurate information on food insecurity and vulnerability. This can be collected through Household Budgetary Surveys, Food Consumption Surveys, and Surveys of Living Conditions. Finally, the guidelines for selecting persons receiving welfare care need to be revised.

With respect to Food Utilization//Nutritional Status/Consumption by the population, Antigua and Barbuda is experiencing a period of nutritional and epidemiological transitions. The nutrition transition is reflected in a shift in diets away from indigenous staples (starchy roots and cereals), locally grown fruits, vegetables, legumes, and limited foods from animals, to diets that are more varied and energy dense, consisting of more processed foods (including processed beverages), more food from animals, more added sugars, more foods that are high in fats/oils and sodium, and often more alcohol.

The result of this shift is ultimately reflected in the epidemiological transition manifested in the reduction of under-nutrition and infectious diseases, and the increase in the number of overweight and obese persons. Obesity is one of the main risk factors in nutrition/food-related non-communicable chronic diseases (diabetes, hypertension, stroke, cardiovascular diseases, and some forms of cancers). Sedentary lifestyles also contribute to the prevalence of these diseases, which are the main public health problems in Antigua and Barbuda. The risk factors for the chronic diseases begin in early childhood and increase with age. The persistence of iron deficiency/anaemia especially in the 1- 4 year age group and in pregnant and lactating women is also a grave concern.

With respect to Stability of Food Supply, Antigua and Barbuda is a small twin island State that is vulnerable to shocks from external economic forces, hurricanes, droughts, invasive species, and wind storms. Changes in the global climate bring more frequent and higher risks of natural disasters that have the effect of reversing several years of economic growth. There is therefore a critical need for disaster preparedness and mitigation strategies to protect agriculture, social infrastructure, the ecosystem, and housing - all factors which ultimately impact food access nationally.

These concerns will be addressed within the context of a consistent policy framework, underpinned by the implementation of a series of programmes as set out in a comprehensive plan of action. The policy outlines the critical issues of food and nutrition security under the four pillars: Availability, Accessibility, Consumption/Utilization and Stability of supply.

There is an increasing recognition that the solution to national food and nutrition problems does not reside in a single sector but in the collaborative efforts of multiple sectors of the economy. There are strong links between agriculture, health/nutrition, education and trade, and policy makers must recognize and act upon them. Historically, government ministries have been organized vertically and tasked with sector-specific

mandates with minimal cross-sectoral collaboration. There is an urgency therefore to effectively engage agriculture, trade, education, finance, other government ministries, the private sector, civil society and other stakeholders in actions that will improve nutrition and health in Antigua and Barbuda. These actions are essential if the country is to reap synergistic benefits and entice key sectors to assist in addressing the main food and nutrition problems of the country. Given their inter-dependent and overlapping characteristics, these public policy issues can no longer be narrowly circumscribed by the traditionally vertical functions of line ministries. The multi-sectoral institutional mechanism for the implementation of the Policy must be clearly defined, developed, and operationalised in the resulting action plan.

SECTION II:

INTRODUCTION

2. INTRODUCTION

Food and Nutrition Security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy lifestyle. It is the foundation of social and economic development and requires an available and reliable food supply at all times. At the global, regional and national levels, food supply can be affected by climate, disasters, war, civil unrest, population growth, lack of effective agricultural practices, political instability, poor governance, restrictions on trade as well as economic shocks such as dramatic increases in prices. Government initiatives that encourage an environment based on macroeconomic stability and competitive markets can improve food availability. At the household level, food and nutrition security is essentially a matter of access to food.

It must be recognised that food and nutrition insecurity can be temporary or chronic, and the level of impact varies with age, status, gender, income, geographic location and ethnicity, as well as other factors such as religion and cultural belief. Poverty is its main cause, and thus sustainable progress in poverty reduction is critical to improving access to food. Individuals need access to sufficient, safe and nutritious food, adequate health services, a healthy and secure environment and a safe water supply. Food security is therefore closely linked to the economic and social health of a nation, society, and individual.

Good nutrition is essential for healthy and active living and has a direct bearing on intellectual capacity, which eventually impacts positively on national, social and economic development. Underlying this principle is the practical application of appropriate diets and healthy lifestyles that, albeit a matter of individual choice, are dependent on stable and sustainable food and nutrition security, knowledge on which to base nutritional choices, quality caring practices, healthy environment and accessible quality health services. Therefore sound food and nutrition policies are required in order to maximise the health and economic benefits for the population.

In order therefore to maximise the health and economic benefits for the population, there is a need for the implementation of sound food and nutrition policies and strategies.

The emphasis on food and nutrition goals and the requirement for Antigua and Barbuda's agriculture and food distribution system to meet these goals derive from five main

observations. In the first instance, the country is faced with high international food and input prices. The general consensus is that these soaring prices are likely to be a permanent feature of international commodity markets with greatly increased volatility around a steady rising trend.

Secondly, Antigua and Barbuda has witnessed a steady decline in the productivity and competitiveness of its agricultural products, attributed mainly to the process of trade liberalization, as well as domestic limitations including institutional, structural, infrastructural, economic and technological factors.

Thirdly, the heavy dependence of the country on a wide range of imported foods has resulted in the country being designated a 'Net-Food Importing Developing Country (NFIDC)'. There is an urgent need to ensure that the country retains the capacity to produce a minimum portion of its food needs while putting measures in place to increase production capacity and ultimately decrease the food import bill.

Fourthly, the country is currently experiencing rapid dietary and epidemiological transitions. The changing food consumption patterns, linked to the increased reliance on food imports, have heightened the level of anxiety with regards to the rising levels of dietary-related illnesses and diseases among a wide cross-section of the country's population.

Nutrition related chronic non-communicable diseases (NCDs) such as diabetes, high blood pressure, stroke, heart diseases, and some forms of cancer have replaced malnutrition and infectious diseases as the major public health problems. Further, the burden of disease, disability, and premature death has shifted from young children to adults in the productive years of their lives.

Fifthly, there is the need to recognize that poverty, social exclusion, and a lack of participation in political decision-making processes are the main causes of food and nutrition insecurity.

We must therefore identify and focus on improving the welfare of the most vulnerable and address proactively the underlying structural causes of hunger. This means supporting strategies that tackle the root causes of hunger and malnutrition, and empowering marginalised groups to participate actively and meaningfully in the formulation, implementation and monitoring of national and regional programmes. The need to establish and strengthen redress mechanisms when the right to food is left unprotected is also recognised.

It is in this context that this Policy Instrument and the subsequent Action Plan will provide the strategies, actions, and framework within which the critical issues of food and nutrition security will be addressed.

SECTION III:

SITUATIONAL ANALYSIS

3. Situational Analysis

3.1 Physical Characteristics

The nation of Antigua and Barbuda is located about 17° North Latitude and 62° West Longitude. Antigua, the largest island, is approximately 108 square miles (280 square kilometres) and occupies 64% of the landmass. Barbuda is situated 28 miles to the North-East of Antigua and 25 miles to the South-East, is the smallest uninhabited island of Redonda. Barbuda and Redonda have a combined area of 62.5 square miles (162 square kilometres).

Antigua has a relatively flat topography characterized by central plains and volcanic hills in the South-Western section of the island. The island is partly volcanic, partly coral and limestone, with a rather rugged shoreline and numerous bays. Approximately 20km² of the country is forested. The soils are mostly comprised of clay, and together with the dry climate, limit crop production.

Antigua and Barbuda experiences a tropical maritime climate with average daily temperatures ranging from 70°F to 88°F (24°C to 31°C). The average annual rainfall is 45 inches (1,143 millimetres), concentrated during the period of June to November. However in recent years, there has been a significant increase in rainfall during the hurricane season. This has led to flooding which adversely affects crop production.

3.2 Population

Preliminary data from the 2011 Census of Population and Housing estimated the total resident population at 86,295 (41,481 males and 44,814 females) which is representative of a male-to-female ratio of 1:1.08. Overall, Antigua and Barbuda recorded an intercensal population growth of 15.6% between 2011 and 2001 with the number of private households increasing by 18.8% over the same period. Persons under 15 years accounted for approximately 28% of the population while those 65 years and over constituted about 7%. The adult literacy rate (defined as population 15 years and over completing five or more years of school) is estimated, from the 2001 census data, at 98.9% (males 98.4%, females 99.4%).

The population is made up predominantly of persons of African descent with a minority of persons of mixed races and Caucasians. Non-national residents emigrate mainly from Dominica, the Dominican Republic, Guyana, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines.

3.3 Food Availability

Domestic Production

Data from the Statistics Division and the Eastern Caribbean Central Bank (ECCB) show that, in real terms, the growth of domestic agriculture (excluding fisheries) fluctuated over the last eleven (11) years, albeit with a significant upward tendency to record an overall growth of 19.4% for the period under review. The sector recorded negative growth rates of -5.29% and -6.70% in 2001 and 2002, respectively, but recovered to record a growth rate of 11.48% in 2003. Declines in the growth of the sector were again recorded in 2005 (3.19%), 2007 (2.58%), and 2009 (1.2%). Notwithstanding, significant growth rates of 10.68% and 10.63% were recorded in 2010 and 2011, respectively. The declines in the sector's rate of growth observed for the years 2001, 2002, 2005, 2007, and 2009 were driven mainly by a significant downturn in the livestock sub-sector, as a result of praedial larceny, and loss of grazing lands due to housing development.

Real rate of growth in the fisheries sub-sector also fluctuated over the last eleven (11) years, with a significant upward tendency from a low of -41.51% recorded in 2009 to a high of 45.05% recorded in 2010. The overall growth in the fisheries sub-sector for the period under review is estimated at 118.5%.

In real terms, the contribution of domestic agriculture (including fisheries) to GDP has fluctuated over the past 11 years, albeit with an upward tendency, clearly following the trend in GDP growth rates of the sector. The contribution of the sector to total GDP, in real terms, increased from a low of 1.47% in 2001 to a high of 2.29% in 2011, reflecting overall increases in the crops (21.4%), livestock (18.8%), and fisheries (118.5%), sub-sectors, but a 20% decline in forestry.

The growth recorded in domestic production over the past eleven (11) years has been mainly due to the strategic approach by the Government of Antigua and Barbuda to boost the contribution of the agricultural sector to economic development by focussing on the promotion of selected priority commodities and the related policies and programmes aimed at improving output and productivity. This performance was achieved despite the many challenges of adverse weather conditions, pest and diseases, praedial larceny, high interest rates on farm loans, and the consequent contraction of investment in the sector, as well as the overall decline in economic activities as a result of the financial and economic fallout in the country.

Crops Sub-Sector

The Crops sub-sector is focussed primarily on the production of food crops, vegetables, pineapples, and Sea-Island cotton to a lesser extent.

In 2011, the Crops sub-sector contributed approximately 29.7% or EC\$15.14 million dollars, in real terms, with respect to agriculture's contribution to the economy. In 2010 cultivated areas with food crops and vegetables were 600 acres (243 hectares) and 1200 acres (486 hectares), respectively. On the other hand there were 124 acres (50 hectares) of pineapples. Projected area for the 2011/2012 cotton crop was 70 acres (28 hectares). There were 1200 registered crop farmers, with 50% farming within the South Central (SC), South East (SE), North Central (NC) and North East (NE) Agricultural Districts. Because of the semi-arid ecology of Antigua and Barbuda where average annual rainfall is 45 inches (1,143mm), more than 60% percent of crops are grown using drip irrigation technology. Data from the Ministry of Agriculture show that vegetable production increased significantly from 2008 through to 2010 (**Table 3.1**).

**Table 3.1: Summary of Vegetable Production in Antigua and Barbuda
2008 -2010 - MT (Metric Tons)**

Description	2008	2009	2010
Total Production	2.13	3.20	3.83
Volume for Local Market	2.13	2.94	3.33
Increased Volume on Local Market	-	0.84	1.20
Volume for Export	-	0.25	0.50

Source: Ministry of Agriculture, Antigua & Barbuda

In spite of the 33% and 17% increases in vegetable production for 2009 and 2010, respectively, the Crops sub-sector is faced with a number of challenges that have impacted negatively on domestic food crop production in the country. The main challenges are as follows:

- Insufficient planning at the Ministry of Agriculture with respect to crop production and marketing of farmers' produce
- Absence of formulated, legislated, and implemented agricultural policies in respect of land tenure, water for agriculture, national food and nutritional security systems
- Inadequate research and development (R&D) work
- Inefficient extension services with respect to the transfer of R & D to farmers
- Limited application of Post Harvest Technology
- Limited application of Food Science and Technology with respect to the value added component of agriculture products

- Chronic issues with respect to praedial larceny on agricultural enterprises
- Insufficient budgetary allocation with respect to construction of feeder roads, bridges, and mini dams in major farming districts

Livestock Sub-sector

In 2011, the Livestock sub-sector accounted for 16.6% percent or EC\$8.52 million dollars of agriculture's overall contribution to the economy of Antigua and Barbuda. The semi-arid ecology of Antigua and Barbuda, coupled with an undulating savannah-type landscape, provide the ideal environmental conditions for livestock rearing. Data available from the Livestock Division of the Ministry of Agriculture and presented in **Table 3.2** show the animal population of Antigua and Barbuda for the year 2010.

Table 3.2: Animal Population of Antigua and Barbuda: 2010

Livestock Category	Population
Cattle	4,772
Pigs	5,000
Sheep	14,322
Goats	27,842
Layers	55,000
Broilers	5,000

Source: Livestock Division, Ministry of Agriculture

More than 60% of livestock farmers are characterized as *landless farmers* and they rear their animals on government or crown lands.

In spite of the potential for expansion within the livestock industry, Antigua and Barbuda remains a net importer of livestock products. However, it is important to note that Antigua and Barbuda produces 95% percent of its annual egg requirements. **Table 3.3** presents output index for the livestock sub-sector for the period, 2001 through 2011 (in 2006 prices). The Table shows a general decline in livestock output for all categories of livestock products.

Table 3.3: Meat Output Index for the Livestock Sub-sector: 2001-2011

Year	Cattle	Sheep	Goats	Pigs	Broilers
2001	168.3	78.6	103.9	68.1	78.9
2002	115.2	61.7	71.2	50.5	59.9
2003	109.5	73.5	81.8	65.2	92.9
2004	104.0	87.4	94.1	84.1	100.1

2005	96.0	97.1	104.2	94.7	59.8
2006	100.0	100.0	100.0	100.0	100.0
2007	100.3	123.8	66.3	73.3	92.4
2008	79.7	80.1	119.6	91.3	114.5
2009	80.8	81.2	49.0	65.9	114.0
2010	87.5	84.5	60.8	67.6	29.0
2011	90.3	50.6	30.5	68.2	57.0

Source: Derived from National Statistics Division, and ECCB.

Livestock production has been affected by the decline in spending power of the population. This has especially impacted on poultry, which is the main source of protein for most people. Other major issues faced by the livestock industry include:

- Inadequate legislation in respect to livestock rearing in Antigua and Barbuda
- Lack of legislation in respect to praedial larceny on livestock enterprises
- Land tenure issues with respect to lease hold arrangements for livestock production
- Absence of Intensive Animal Production Technology (IAPT), for example, zero and semi-zero grazing systems
- Sub standard facilities at the Central Abattoir in meeting national as well as international standards
- Absence of legislation to encourage the use of local livestock products

Fisheries Sub-Sector

The Fisheries sub-sector makes the greatest contributor to agriculture GDP. In 2011 it accounted for 51.5% or EC\$26.3 million dollars, in real terms, of agriculture's total contribution to the economy. Fish resources in the country consist mainly of marine capture fisheries, with inland fisheries, not being economically significant.

Data from the Fisheries Division indicate that there are 1500 registered fisherfolk. The technology employed within the artisanal fishery is trap fishing. This type of fishing is conducted over the 34,000 sq km of the Exclusive Economic Zone (EEZ), making Antigua and Barbuda one of the largest fisheries within the Organization of the Eastern Caribbean States (OECS).

Annual production and value of fish over the last eleven (11) years is presented in **Table 3.4** with average annual output estimated at 2,649 MT. The average annual production

of lobster is estimated at 2,400 MT, making an average annual total production of approximately 5,049 MT.

**Table 3.4: Antigua and Barbuda: Annual Production of Fish:
(2001-2011)**

Year	Quantity (MT)	Value (EC\$)	Output (2006 Prices)	Real Output Index
2001	1,824	24,354,217	27,817,173	62.1
2002	2,374	30,858,783	35,996,386	80.3
2003	2,587	31,588,387	36,829,386	82.2
2004	2,527	29,937,553	34,854,853	77.8
2005	2,999	42,995,640	43,058,240	96.1
2006	3,092	44,818,253	44,818,253	100.0
2007	3,092	51,402,653	44,871,426	100.1
2008	3,521	49,222,407	39,012,226	87.0
2009	2,490	37,700,293	29,793,373	66.5
2010	2,293	34,631,999	27,663,253	61.7
2011	2,339	35,324,639	28,215,978	63.0

Source: Fisheries Division, Ministry of Agriculture

Fishing technology involves the conventional wooden or steel framed fish traps that are placed on extended sea shelves using GPS technology. The traps are hauled or cleared every two (2) days using hydraulic winches. Access to fisheries resources in international waters is limited only by the technical capabilities of the local fishing industry so that intensity of the fishing effort is a major determinant of production. The Fishing sub-sector is the most resourceful of all sub-sectors within the Agricultural sector and is yet to realize its full potential as a result of the myriad of challenges faced, including:

- Importation of cheaper products from other CARICOM countries
- Chronic problems with fish poisoning i.e. ciguatera, particularly off the Redonda Bank
- Overfishing on the artisanal fisheries
- Poaching by fishermen from the French islands
- Restricted marketing of fish in European Union countries, resulting from the stringent health and quality standards
- Testing facilities

- Limited investment capital to equip boats for deep sea fishing in order to harvest the migratory species
- Limited enforcement of legislation to ban spear fishing in and around reefs
- Outdated Fisheries Act and Regulations

Sustainable Forest Development

In 2011, Forestry's real contribution to the agricultural sector was estimated at 1.7% (EC\$0.94 million). The Forestry Unit of the Ministry of Agriculture remains one of the smaller entities within the Agricultural Sector, and is currently staffed with three (3) Technical Officers and seven (7) Field Assistants. In spite of the small size, the Unit has done significant work in the conservation of flora and fauna within the South Western Shekerley Mountain Range and the North Sound Project, just off the North Eastern Coast of Antigua.

Presently the Unit is engaged in three (3) major projects, including:

- Sustainable Island Resource Management Mechanisms (SIRMM)
- Ridge to Reef
- Wallings Interpretation Centre

The SIRMM project which is funded by the Global Environmental Facility (GEF) involves the establishment of demonstration sites and the use of various technologies to control the invasive lemon grass within the Body Pond Watershed and the Shekerley Mountain Range. The project also involves the construction of bench terraces as fire breaks and for soil erosion control measures. The cashew and mango have been identified as orchard crops to be planted on bench terraces for economic purposes. The Ridge to Reef project, also funded by the GEF, focuses within the same environs on rehabilitation to protect the water drainage system from erosion of mud and silt. The Wallings Interpretation Centre will serve as an information facility providing to visitors an historical perspective of the area. It will be outfitted with the requisite signage and recreational amenities.

The Forestry Unit is also involved in collaborative work with Non-Governmental Organisations (NGOs) such as the Environmental Awareness Group (EAG) and the Gilbert Agricultural and Rural Development Center (GARDC). This Unit has been playing its role with respect to linkages to the Tourism Sector particularly the maintenance of nature trails as well as the Interpretation Centre at Wallings.

In spite of the Unit's untapped potential, there are a number of issues that are currently affecting its functions. These include:

- Absence of legislation of the Forestry Act
- Poor alignment of the Unit's roles and responsibilities with that of the Environment Division for greater efficiency while maintaining relevance within the Agricultural Sector
- The presence of un-trained human resource at various levels within the Forestry Unit

Land Use

Water Use and Irrigation

Most small scale agricultural activity is rain-fed, as very little irrigation is used outside of this medium on large commercial farms. The main type of irrigation is the drip irrigation system.

The Antigua Public Utilities Authority (APUA) is responsible for the management, operation and maintenance of all water systems in the country. Activities include the harnessing and distribution of groundwater, surface water, and Re-Osmosis water for allocation to farmers and also non-agricultural users. The primary mission of the APUA is to maximize effective use of water through improved conveyance and distribution infrastructure. The Ministry of Agriculture has responsibility for providing guidance and training in on-farm water management techniques so as to increase productivity and profitability in the agricultural sector and thus ensure the economic and financial viability of the irrigation infrastructure.

Of the total daily national demand of approximately six (6) million gallons, between 3.4 - 3.5 million gallons (56.7% - 58.3%) are obtained from the functional three Re-Osmosis plants in the country. Farmers are exposed to two rates for irrigation water, depending on the quality:

- EC\$25 per 1000 gallon for treated water
- EC\$7 per 1000 gallon for untreated water

The major challenges facing the supply of water to farmers in Antigua and Barbuda include:

- Further depletion of the already scarce sources of groundwater due to saline intrusion
- High cost of producing water in Antigua and Barbuda, especially de-salinated water through the Reverse Osmosis (RO) process
- High cost of transporting water to farmers in remote areas
- Inadequate water catchments or ponds within major farming districts

- Chemical contamination of dams due to misuse of chemicals
- Close proximity of farms to water sources

Notwithstanding the challenges, opportunities to enhance the supply of water in the country through water harvesting, conservation practices, and the use of water treatment and sewerage plants exist.

Agro-Processing

Antigua and Barbuda's food manufacturers process a number of food items including: rum, meat, poultry and fish; dairy products (including ice cream); fruit and vegetable (including hot pepper, jams and jellies); oils and fats; snack food; and baked goods.

Raw materials for many food manufacturers are normally sourced externally with the duty being waived or reduced. Due to their small volumes, cottage industries normally access their main raw materials from producers within the country. Inputs such as packaging materials, food additives, and other chemicals are imported.

The main constraints faced by the industry include:

- Limited availability of land to produce raw materials for the industry
- Absence of quality local raw materials
- Inefficient marketing and market linkages
- Lack of consistency in production and post-harvest handling
- Limited investment in agro-processing research and development
- High energy and transportation costs
- Limited access to affordable financing
- Limited ability to meet international quality standards, due to inadequate application of Hazard Analysis Critical Control Points (HACCP) Management Systems, especially for exporters
- High costs of implementation of international standards
- High costs and variable quality of some basic services, such as product testing and certification by the private sector
- Fragmentation of government agencies responsible for testing and laboratory services necessary to ensure that food exporters meet international food safety and traceability standards

- Inadequate linkages between the domestic agricultural and emerging food manufacturing sectors, which points to the need for an enabling environment to foster stronger linkages between both sectors

Clearly, a viable agro-processing industry requires an integrated production system between processors and farmers whereby processing operators produce a core portion of their key raw material requirements and engage farmers, in adjacent communities, through contractual arrangements to produce the additional amount required according to an agreed production schedule and at pre-determined contract prices.

Rural Development

Rural Development policies and programmes are administered by the Extension Division and activities are conducted within the (6) six Agricultural Extension Districts. In addition, there is significant collaborative work with Non- Governmental Organizations (NGOs), Inter-American Institute for Cooperation on Agriculture (IICA) and Faith-Based Organizations (FBOs).

Annual budgetary allocation to the Extension Division is EC\$ 1.98 million of which more than 75% percent represent personal emoluments.

The FAO project, resulting from the Initiative on Soaring Food Prices that was launched in 2008, saw the resurgence of the Backyard Garden Initiative (BGI) which became a major rural developmental programme. The initial launch of the BGI recorded in excess of 1500 householders registering with the programme.

Main challenges faced by the Extension Division include:

- Un-motivated staff
- Inadequate budgetary allocation for the programme
- Inadequate feeder roads and bridges to improve accessibility to farms

External Trade and Food Security

In spite of the significant potential to increase agricultural production, Antigua and Barbuda remains a significant net importer of its food supplies, as the country does not have the capacity to produce all of its food needs. In 2011 the country's net food import bill was estimated at EC\$240.64 million (US\$89.13 million) which represents a substantial increase (84.2%) from the net food import bill of EC\$130.65 million (US\$48.39 million) dollars recorded in 2001. The situation has increased Antigua and Barbuda's food and nutrition security vulnerability, in view of the global situation with respect to the high prices of wheat flour, rice and other staples. It is important to note that the top seven categories of food imports are cereals, sugars, food preparations, dairy products, fishery products, meat and vegetables/fruits.

Despite the high food import bill, there are possibilities for significant import substitution according to a study conducted by the Ministry of Agriculture (MOA). Ministry officials are of the view that the creation of an enabling environment for domestic food production and agro processing can be fostered with appropriate trade and agricultural development policies. Within this context, the MOA has embarked on a national food security initiative and has identified (16) sixteen crop types¹ to form the nucleus of this programme. In addition, the National Food and Nutrition Security policy (NFNSP) has been incorporated within the agricultural policy framework of 2010.

Summary of Major Challenges to Food Availability

According to data from the Food and Agriculture Organization (FAO), the Food and Nutrient Availability profile for Antigua and Barbuda for the period 2005 to 2007 showed an excessive availability of calories mainly due to the presence of increased amounts of oils, fats and sweeteners in food items. Fruit availability exceeded population goals for this period, while the contribution of vegetables, dried peas, beans and nuts to available energy fell well below population goals. In addition, there is a trend towards increased importation of both fruits and vegetables to satisfy local demand.

National food availability depends, of course, on domestic production and food importation. While the ultimate goal is to become more self-sufficient, the food import bill has soared in the past decade. Although there has been some increase in domestic agricultural production, it has not been sufficient to keep pace with the exponential rise of the food import bill.

Most staples such as cereals and cereal products and ground provisions like cassava, dasheen and plantain are imported. Meats, seafood, fruits and vegetables are also imported in large amounts. There is a high demand for chicken which accounted for 74 % of the meat imports in 2011. Only beef and goat meat showed a decrease in the amount imported in 2011 with almost one third (32%) of the demand for beef being met by local production and 18% of the demand for goat meat being produced locally. There is also a high demand for pork, 14% of which was met through local production in 2011. Egg production has increased steadily between 2006 and 2011 and the country is now self-sufficient where eggs are concerned.

In general the national food availability profile for Antigua and Barbuda may appear adequate in terms of quantity. However, there are major concerns over the high food import bill as well as the quality of foods, especially the increased availability of foods which are high in sugar, fats and oils and the low availability of vegetables, dried peas, beans and nuts.

It is clear from the experience of the past decade that, despite the consistent efforts of the Government to increase agricultural production, productivity, incomes and competitiveness, many fundamental constraints still exist. These include:

¹ Cabbage, carrot, onion, sweet pepper, tomato, butternut squash, cucumber, egg plant, pumpkin, watermelon, cassava, corn, pineapple, sweet potato, yam, and cotton.

- Small size of land holdings
- Over-reliance on rainfall to meet water needs, coupled with the high cost of irrigation water
- Under-utilization and inefficient use of large areas of arable lands
- High incidence of praedial larceny
- High post-harvest losses of up to 40% of production, coupled with inadequate post-harvest infrastructure and application of appropriate technology
- High production costs, especially for labour and agricultural chemicals
- High cost and inappropriate use of inputs, especially agricultural chemicals.
- Low labour productivity
- High incidence of pest and diseases
- Insufficient and decreasing levels of public and private sector investment
- Limited access to credit due to onerous collateral requirements resulting from insecure land tenure arrangements.
- Poor quality of feeder and farm roads which raise transportation costs and post-harvest losses
- High incidence of and susceptibility to natural hazards/disasters, such as hurricanes, storms, protracted droughts and flooding in periods of heavy rainfall
- Competition from lower priced imports which reduce demand for local produce and create a disincentive to domestic producers
- An unpredictable policy environment which makes long term investments unattractive
- Inadequate linkages between the domestic agricultural, agro processing, service and distribution sectors
- Absence of clear agricultural land use/ zoning
- Poor organization among farmers due to weak farmers' organizations
- Limited use of Good Agricultural and Manufacturing Practices by farmers and food processors

- Limited size of market constrains production due to easy saturation
- Limited information for decision making on production and marketing

3.4 Food Accessibility

Physical and economic access to adequate food of good quality is considered a right for all people. Income and food prices are the key determinants of accessibility to food at the household and ultimately at the individual levels.

With a gross national per capita income of US\$12,740 in 2011, Antigua and Barbuda is ranked by the World Bank as a 'middle income' country. The main economic sectors are construction, transport, storage and communications, wholesale and retail trade, hotels and restaurants and financial services. The labour force of the country is estimated at 34,000 workers.

Poverty is a major barrier to accessibility to adequate food. A national Country Poverty Assessment (CPA) was conducted in 2005/2006, in Antigua and Barbuda. The indigence line that was established as the minimum that could have been spent on food to maintain good bodily health in 2005/2006 revealed substantial poverty and even indigence. The indigence line was estimated at EC\$6.71 (US\$2.51) per day or EC\$2,449 (US\$917) per annum, and would have provided an adult male equivalent with 2400 kilocalories per day. The indigent population was estimated at 5.0 % or 4,252 individuals, located in 1384 households, constituting 4.4 percent of the households of the country. A high 18.3% of the population was estimated to be vulnerable - that is, at risk of falling into poverty if there were shocks to the economy. Poverty was reported to be most common among the elderly and unemployed single women, many of whom have children but receive no adequate financial support for them.

At the household level, much of the poverty that has been identified in the country has resulted from a combination of factors such as limited access to productive employment opportunities, inadequate physical assets, such as capital and credit even on a small scale, and poor access to markets. The worst affected members of the society are households headed by females, small farmers, urban slum dwellers, landless rural workers, fisher folks, street children, orphans, persons with disabilities, households headed by the elderly, pensioners, the unemployed, those in low-paying formal and informal employment, and persons living with HIV and AIDS.

This pervasive poverty has led to a number of social problems including increased incidents of HIV/AIDS, high levels of teenage pregnancy, relative underperformance in schools, drug abuse, drug running, gang violence and periods of high crime. The country has also become a destination for migrants from neighbouring countries, with serious challenges of assimilation in some quarters.

According to the 2007 CPA report, the poorest members in the society spent more on food (40.6%) than any other group, compared with the national average expenditure on

food of 24.7% at the time of the survey. Unemployment rates have been reported to be high among youth, especially males.

On the hand, female unemployment has been substantially higher than male unemployment. This is of particular concern, as female headed households tend to be larger (with more dependants - women, children and elderly persons) than those headed by males and the female labour force participation rate is lower than that for males². Therefore food insecurity may be more prevalent in female headed households, especially where the women have lost their source of income and employment.

The global financial, food, and fuel crises of 2008 severely impacted the economy of a small developing state like Antigua and Barbuda, resulting in increased hardships in the form of contraction in real GDP, reduced purchasing power, reduced remittances and increased unemployment levels. Since then food prices have escalated without any parallel rise in incomes. With the economic decline, female heads of households have been severely affected given the importance of tourism in the employment of women. While there is a range of social service agencies, their interventions have not been well coordinated.

In an effort to improve the standard of living for the population and to combat poverty, the Government of Antigua and Barbuda has put in place various initiatives to alleviate the plight of the most vulnerable in society. The Citizens' Welfare Division within the Ministry of Social Transformation has been given the responsibility for the delivery of social services. Persons referred to as socially deprived and nutritionally vulnerable, including the elderly, children, women, and persons who are mentally and/or physically challenged are the recipients of such initiatives/services.

In addition, the Government has established a Basket of Essential Goods of key household necessities, the prices of which are strictly monitored by the Prices and Consumer Division. The Customs Service Tax has also been reduced on all items in the Basket. A value-added tax referred to as the Antigua and Barbuda Sales Tax (ABST) was introduced in 2005, but a set of essential commodities, including food items, have been 'zero-rated'.

Antigua and Barbuda has good social indicators but is facing increasing pressure to maintain them as a result of the global economic slowdown and fiscal constraints. In 2009, the Government spent 5.2% of the GDP on social protection, 3.6% of GDP on social insurance - in part, because of the Civil Servants (non-contributory) pension plan, and 1.6% of GDP on social assistance. Social assistance spending has most likely increased in recent years with the introduction of the School Uniform Programme in 2004, the School Meals Programme in 2006, the Student Loan Programme in 2008, and the cash transfer programmes such as the People's Benefit and Senior Citizens Utility Programmes in 2009. There have been also large subsidies on fuels and utilities which were only partly eliminated in late 2009. When comparing the distribution of social

² Antigua and Barbuda Survey of Living Conditions 2007

assistance spending per age group and the corresponding distribution of poverty, relatively little is spent on children between the ages of 0-4 years and adults, 25-59 years.

Preliminary incidence analysis indicates that several programmes are poorly managed. There is significant programme duplication and some programmes are overly generous. At the same time, there are some critical areas unattended, namely: (i) Early Childhood Development/pre-school for vulnerable children (ii) active labour market programmes, including support to jobless and vulnerable youth attending vocational training (iii) low income housing and (iv) access to basic services (water, sanitation, and electricity). Given existing and foreseeable resources limitations, the Government should consider reallocating resources from poorly structured and overly generous programmes to these priority areas and improve the efficient use of resources across programmes.

The efficient use of resources can be improved with better planning and programme management instruments, including management information and monitoring and evaluation systems through:

- Promoting transparency and accountability of operations
- Closing the Early Childhood Development/pre-school coverage gap
- Ensuring that all children are in school
- Developing active labour market policies
- Developing low income housing and providing basic services
- Preparing responses to economic shocks, climate change and other natural disasters
- Reforming pension programmes
- Ratifying the Convention on the Rights of the Disabled and implementing legislation
- Strengthening coordination mechanisms
- Improving the management operational systems to include the consolidation of programmes; adjusting the institutional placement of some programmes, and establishing a unified targeting system and payment mechanism
- Developing and implementing information, education and communication campaigns
- Investing in information and required accountability systems

- Establishing programme information and monitoring and evaluation systems

Some assistance is being currently provided by service clubs, private sector, and community-based, faith-based and non-governmental organizations to help cushion the effects of poverty among the most vulnerable. Several church groups and service clubs, for example, offer Meals-on-Wheels programmes, foods packages and certain basic items to the elderly, homeless and other disadvantaged persons. An important strategy for poverty reduction is the empowerment of at risk groups through education, skills training and personal development. The Gilbert Agricultural and Rural Development Center (GARDC), a project of the Methodist Church, has adopted such an approach by involving vulnerable youth, unemployed, and low income women in agricultural and rural development training programmes. The aim of GARDC is to improve the welfare and standards of living among these groups by supporting “the creation and expansion of sustainable livelihoods” (GARDC Annual Report: Sept 2010 to Aug 2011).

In 2008, the Ministry of Agriculture with support from FAO also embarked on an intensive backyard gardening programme and has increased focus on school gardens to help increase food and nutrition security at the household level.

In a much more comprehensive approach to poverty reduction in the country, the Government has embarked on a National Economic and Social Transformation (NEST) Plan 2010-2014 directed at economic rebalancing. In addition, the most recent National Poverty Reduction Strategy (NPRS)³ 2010 presents, in a comprehensive and strategic manner, the macroeconomic, structural and social policies and programmes that will be pursued over five years (2011- 2015) to promote growth, reduce poverty and improve overall living conditions in Antigua and Barbuda. The NPRS adds to the NEST thrust by refining key initiatives that are in place and identifying the gaps, and therefore those additional interventions that are needed to effect transformation to the economic base.

The overarching strategy outlined for poverty reduction in the NPRS is based on three components:

- Poverty reduction is fundamentally about economic expansion - unless there is a drastic redistribution of resources provision of income to the poor will need to come out of the productive process.
- Judicious investments in the poor themselves, through the mobilization of their own internal capabilities and assets and/or the provision of investible resources - this can lead to the poor becoming involved in the growing of the economy out of which they can secure some of the proceeds that reduce their poverty or raise them above the poverty line.

³Government of Antigua and Barbuda 2010. “National Poverty Reduction Strategy 2011-2015”, prepared by Kairi Consultants Limited in association with the National Assessment Team, on behalf of the Government of Antigua and Barbuda and the Caribbean Development Bank.

- Transfers can alleviate poverty, but should be derived from the generation of incomes which would serve as the basis for the redistribution of resources to the poor and vulnerable

The strategy is anchored on five pillars, namely:

- **Growth and Wealth Creation** – by building on the present economic base, and as well as by diversifying into new sectors and activities that are internationally competitive
- **Expansion of Pro-poor Employment and Income Generating Opportunities** – by increasing access to education, training and self-upgrading including the use of ICTs, and by the provision of credit for micro-enterprises and SMEs.
- **Modernization of Social Protection and Increasing the Resilience of the Poor** – by anticipating risk factors that contribute to poverty and planning corrective measures for them when they eventuate, through programmes that target the poor but seek to avoid encouraging a dependency syndrome by building self-reliance and graduation out of poverty as the objectives of most interventions.
- **Good Governance and Public Sector Management** – by institutionalizing the rules of good governance that would be evident in greater transparency and accountability in the delivery of public services, and by the fullest involvement of the citizenry in the running of their affairs, thereby imposing greater probity: performance-based budgeting would be part of this new thrust and would allow for greater reporting on the results of initiatives of the Government and the level of expenditure associated with such initiatives.
- **Building Resilience through Environmental Sustainability** – by making disaster risk reduction a feature of the planning process in light of the high environmental risks that the country faces from hurricanes, earthquakes, and now rising sea levels as a result of global warming.

Clearly, access to nutritious and adequate amounts of food is an increasing challenge for some groups and the need to sustain and strengthen social protection programmes and to build capacity among those at risk, will remain a priority.

3.5 Food Utilization/Nutritional Status

Food Utilization and Food Safety

Food utilization refers to the utilization of food through adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being where all physiological needs are met. The process, to a large measure, depends on knowledge within the household of food storage and processing techniques, preparation and handling

methods, as well as basic principles of nutrition and proper child care. The importance of a balanced diet, which supplies all the necessary nutrients and energy without leading to over consumption, cannot be overstated. Factors impacting on the effective utilization of food include:

- Nutrient losses associated with food preparation
- Inadequate knowledge and practice of health techniques, including those related to nutrition, child care and sanitation
- Cultural practices that limit consumption of a nutritionally adequate diet by certain groups or family members

The availability of safe food is a critical element of food and nutrition security. Notwithstanding, in Antigua and Barbuda, food safety is challenged, as microbial hazards and the food-borne diseases have become increasingly prevalent public health problems. In Antigua and Barbuda, although most food preparation is done in the home, restaurants and fast food chains also prepare food for consumption. In addition food is often bought from street vendors. Given that 24.7% of the household food budget is spent on food prepared outside the home, this may lead to situations in which a single source of contamination can have widespread consequences.

Although the Central Board of Health (CBH) has an established certificate quality assurance programme in food preparation and sanitation practices for food vendors, the challenge is in the monitoring. Also of importance to food safety is the globalization of the food trade which may challenge safe food distribution. Chemical contaminants are also a source of food borne illnesses. They include natural toxicants, environmental toxicants, and naturally occurring substances in plants.

Most food safety concerns are related to inappropriate use of agricultural chemicals, poor storage of food, limited food inspection, insufficient awareness about food safety and time/temperature control, improper hygienic practices and insufficient information about the hazards and risks involved. There is the need to address food safety concerns in Antigua and Barbuda in a much more systematic approach, in accordance with the HACCP guidelines.

Health and Nutrition

The crude birth rate recorded for 2010 was 13.82- the lowest over the period 2006 to 2010. The highest recorded for that period was 16.60 in 2008. Life expectancy at birth in 2011 was 75.5 in aggregate with 73.5 for males and 77.6 for females. Low birth weight percentage recorded for 2009 was 5.8%. Infant mortality rate per thousand live births for 2010 was 14.50, a slight decrease from 15.67 recorded in 2009. The crude death rate recorded for 2009 was 5.5.

Chronic Diseases continue to be the leading causes of death in Antigua and Barbuda. Over the period 2006 – 2010, heart disease and cancer ranked numbers one and two

respectively as the causes of death (**Table 3.5**). Diabetes was the third leading cause for that period while hypertension and cerebrovascular diseases were among the other chronic diseases within the top five leading causes of death. Respiratory diseases have been increasing and climbed from the 9th leading cause of death in 2004 to number four in 2008 and 2010. Deaths from accidents and injuries have also been increasing.

Table 3.5: Ten Leading Causes of Death in Antigua and Barbuda: 2006 – 2010

Rank	2006	2007	2008	2009	2010
1	Heart Diseases	Malignant Neoplasms	Heart Diseases	Heart Diseases	Malignant Neoplasms
2	Malignant Neoplasms	Heart Diseases	Malignant Neoplasms	Malignant Neoplasms	Infectious Diseases including HIV/AIDS
3	Diabetes Mellitus	Diabetes Mellitus	Diabetes Mellitus	Diabetes Mellitus	Hypertensive Diseases
4	Hypertensive Diseases	Cerebrovascular Diseases	Diseases of the Respiratory System	Accidents & Intentional Injuries	Diseases of the Respiratory System
5	Cerebrovascular Diseases	Accidents & Injuries	Hypertensive Diseases	Hypertensive Diseases	Accidents & Intentional Injuries
6	Accidents & Intentional Injuries	Diseases of the Respiratory System	Accidents & Intentional Injuries	Diseases of the Respiratory System	Diseases of the Digestive System
7	Diseases of the Respiratory System	Hypertensive Diseases	Cerebrovascular Diseases	Cerebrovascular Diseases	Diabetes Mellitus
8	Infectious Diseases including HIV/AIDS	Diseases of the Digestive System	Infectious Diseases including HIV/AIDS	Infectious Diseases including HIV/AIDS	Cerebrovascular Diseases
9	Diseases of the Digestive System	Conditions originating in the Peri-natal Period	Signs, symptoms and ill-defined conditions	Diseases of the Digestive System	Heart Diseases
10	Bacterial Diseases	Infectious Diseases including HIV/AIDS	Diseases of the Digestive System	Diseases of the Nervous System	Conditions originating in the Peri-natal Period

Source: Health Information Division, Ministry of Health

Respiratory and diarrhoeal illnesses are reported as the main causes of morbidity. Other morbidities include diabetes, hypertension, and cancer. The main causes of hospital admissions and discharges are complications arising from diabetes and hypertension (**Table 3.6**).

**Table 3.6: Reported Cases of Diabetes and Hypertension
(2008 – 2010*)**

Year	Diabetes	Hypertension
2008	1493	3169
2009	1510	3528
2010	1708	3543

Source: Health Information Division, Ministry of Health

*Community Clinics only

Food borne illnesses are also causes of hospitalization for Antiguan and Barbudans. In 2010, there were twenty-one (21) confirmed cases of Salmonella in the twin island state; this was a significant increase from the average of five cases for the period 2006 – 2009.

Low birth weight reported for Antigua and Barbuda for the period 2007 to 2009 averaged 5%. The percentages calculated over the three year period are as follows: 2007 - 5.6%, 2008 - 4.6%, and 2009 - 5.8%. Breastfeeding initiation rates remain high in Antigua and Barbuda at well over 95%. However early introduction of supplementary foods within the first few weeks of life is a common practice. Monthly reports from Child Health Clinics show that on average only about 30% of newborns are solely breastfed up to 6 weeks, and over 80% continued to breastfeed up to three months, supplemented with other milk. Early introduction of complementary foods has been associated with both over-nutrition and under-nutrition as well as an increased risk for infectious diseases like gastroenteritis. There is an on-going initiative to promote the benefits of exclusive breastfeeding for the first six months of life, with the introduction of complementary foods at six months and the continuation of breastfeeding for up to two years and beyond.

Over the period 1995 to 2006, an average of 1.13% of children, below the age of 5, attending community clinics were reported to be underweight based on the weight-for-age index. Meanwhile an increase in overweight and obesity has been observed over a similar period. Until recently, the weight-for-age index was used as the main indicator of nutritional status in children under five years. With the introduction of the New WHO Child Growth Standards in May 2010, nutritional status of children in this age group is assessed using weight-for-length/height, and length/height-for-age. These two indicators provide more detailed information on growth and nutritional status.

Data on stunting, from measurements of length/height-for-age taken in mid-2010 to mid-2011, is now available for the first time and shows relatively low levels of stunting (2.0%) and severe stunting (0.57%). The rates for wasting and severe wasting were also low, 3.02% and 0.98% in 2010 and 2011, respectively. The percentage of children who were classified as overweight or obese was 8.24% (5.72% overweight and 2.51% obese) indicating that twice as many children were overweight or obese compared to those who were underweight (wasted or severely wasted).

School-aged Children

There is no established surveillance programme for monitoring the health and nutritional status of school- aged children. Information on the nutritional status of this age group has been gathered from the survey of Nutrition Knowledge, Practices and Iron Status of Adolescents in Antigua and Barbuda, which was carried out in 2006 and from a screening programme conducted by the Medical Benefits Scheme (MBS) between 2006 and 2009.

The 2006 survey showed that 18.9% of adolescents aged 11 to 17 years were either overweight or obese. More girls (20.4%) than boys (16.6%) were classified as being either overweight or obese. The rates of overweight and obesity were also higher in Barbuda (23.4%) versus Antigua (18.2%). The MBS data collected on 4000 students, aged 5-20 years, revealed that 26.8% of those screened were either overweight or obese. In addition, the MBS data pointed to a high number of students at risk for chronic non-communicable diseases (NCDs), like diabetes and hypertension.

Anaemia is another persistent problem especially among infants, young children and pregnant women. In 2008, 10.83% of children below the age of five who were screened for anaemia (Haemoglobin, Hb testing) were found to be anaemic by WHO standards (Hb <11g/dl). However, only 42% of this target population were screened.

Almost a quarter or 24.5% of the adolescent sample screened for anaemia in the 2006 study were found to be anaemic. The majority, 18.5% were mildly anaemic, while 6% were moderately anaemic. Anaemia rates were higher among girls (29.3%) than boys (17.2%); and also higher in Barbuda (36.3%) compared to Antigua (24.5%).

The most prevalent form of nutritional anaemia is caused by iron deficiency due to inadequate intake and/or absorption. Iron supplementation is a key strategy for the prevention and control of anaemia. An iron supplementation programme is carried out in child health and antenatal clinics in Antigua and Barbuda. Nearly half of the students surveyed in 2006 reported taking iron or vitamin/mineral tonics within the 30 days prior to the study but it is not clear how regularly these supplements are used by adolescents in general.

In summary, overweight, obesity and NCDs as well as anaemia in some vulnerable groups, are the most common nutrition-related problems in Antigua and Barbuda.

Education on food and nutrition is delivered through science subjects, home economics, physical education, health and family life education and in special sessions organized from time to time in a number of schools. As part of its School Outreach Programme, the MBS has conducted nutrition and physical education sessions in selected primary and secondary schools. The Ministry of Education also organizes an annual School Food and Nutrition Quiz which is broadcast on national radio and television. Public education, on food and nutrition and various health related issues is often carried out through the media.

Physical education is included in the school curriculum, but it is optional. Access to information and communication technology is widespread in Antigua and Barbuda. The Government, with the support of the private sector, is conducting a “Connect Antigua and Barbuda” initiative whereby computer centres and training are being made available within communities across the island. Recently, teachers have been provided with free laptops and special packages for internet access.

The National School Meals Programme, with its slogan “Nutrition for Learning”, provides approximately 2600-2700 meals (hot lunches) daily to eighteen (18) of the thirty-two (32) primary schools in the four (4) zones established by the Ministry of Health. The meals are produced in a central kitchen where the quality and quantity of the food dispatched to school centres are monitored. The meals are generally well received; however, based on observations made by the food handlers, most students do not consume the cooked vegetables. There is a preference for green salad and coleslaw. Local ground provisions such as yams are not consumed even when prepared in a variety of ways.

To encourage more participants in the programme and to promote acceptance of the meals offered (especially what is produced locally), a nutrition campaign is necessary in all participating schools. There is also a need for a study to be done to assess the impact of the programme on the nutrition and health status of those children participating versus those who are not. Students are required to make a minimal contribution for meals, but there are some selected students from the lower socio-economic bracket who receive their meals free.

Food consumption patterns in Antigua and Barbuda are changing from traditional diets to eating patterns which are less healthy and strongly influenced by complex and challenging factors including the promotion of convenience or fast foods which are often high in fat, sugar, and salt. In some cases, these foods may be more affordable and more appealing to taste. The recent economic downturn is also negatively impacting food choices, especially among vulnerable groups. This phenomenon should be closely monitored.

Adults and the Elderly

The main nutrition-related problems among adults and the elderly are obesity and NCDs. On average, over 60% of adults, 20 years and over, who were screened in community clinics between 2003 and 2010 were classified as overweight or obese (**Table 3.7**).

Year	2003	2004	2005	2006	2007	2008	2009	2010
No. of Persons Screened	1,688	1,974	2,209	2,903	2,223	2,469	2,711	3,095
Overweight (BMI $\geq 25 < 30$)	546 32.30%	549 27.80%	561 25.40%	845 29.10%	694 31.3%	809 32.77%	922 34.00%	1,112 35.93%
Obese (BMI ≥ 30)	575 34.10%	739 37.40%	775 35.10%	1,116 38.40%	696 31.3%	789 31.96%	757 27.92%	940 30.37%
Overweight + Obesity (BMI ≥ 25)	1,121 66.40%	1,288 65.20%	1,336 60.50%	1,951 67.60%	1,390 62.53%	1,598 64.72%	1,679 61.93%	2,052 66.30%

Source: Health Information Division, Ministry of Health

Most households in Antigua and Barbuda have access to refrigeration; hence foods which require cold storage or which should be kept frozen would generally be stored in a refrigerator or in a freezer. Persons who do not own refrigerators may in some cases store foods at the homes of neighbours or family members or may purchase just enough to use on a daily basis. The practice of salting and drying certain meats and fish is carried out in Barbuda where these foods are still consumed in traditional dishes. Dry goods such as cereal, cereal products, canned foods, dried peas and beans are generally stored in kitchen cupboards. Appropriate and safe storage of foods can help to reduce losses through spoilage and to preserve the nutritional quality of fresh produce.

The epidemiological profile for Antigua and Barbuda, which shows a high prevalence of non-communicable diseases, provides strong justification for the development and strengthening of strategies to address the associated risk factors. While adequate food availability may exist at the national level, there is a high dependence on imported foods and a shift to less healthy food choices, which points to the need for retailers, wholesalers, and other food importers to be more targeted.

It is clear that there must be increased vigilance to ensure that the most vulnerable members of the society continue to have access to adequate food of good quality by maintaining social safety nets and building capacity through education and training to promote greater self-reliance. There is an obvious need to influence food consumption patterns which demonstrate healthier food choices with greater emphasis on locally produced foods which are available, affordable, and acceptable. The major issues to be addressed relate to:

- High prevalence of overweight and obesity
- Non-communicable diseases- heart disease, some forms of cancer and diabetes (three leading causes of death) - as the leading causes of morbidity and mortality

- Anaemia as a problem among infants and young children, adolescent girls and pregnant women
- High food import bill
- Growing preference for foods which are high in fats, oil, sugar, and salt
- Inadequate consumption of fruits and vegetables
- High availability of foods from animals contributing to high fat intake
- Increasing food costs threatening accessibility to foods for the poor and vulnerable
- Conflicting and confusing nutrition and health messages
- Persistent fads and fallacies persist

3.6 Stability of Food Supply

Antigua and Barbuda's location, geology and geography, make the island prone to several natural hazards such as landslides, hurricanes, floods, droughts and earthquakes. In recent times, the country has experienced an increase in the frequency and intensity of such natural events, primarily floods (related to inclement weather, tropical depressions, tropical storms and hurricanes), droughts and landslides. This has heightened the concerns about the impact of climate change, especially given the fact that the country's agricultural sector is primarily rain-fed.

Most of the population live along the coastline, where the capital and other major towns are located, and consequently are highly vulnerable to coastal hazards - the severity of which is exacerbated by situations of high social and economic vulnerability, and further aggravated by the effects of climate change. The most visible impact of climate change has been the increasing vulnerability to severe storms and the increased frequency and intensity of flood events. This creates an inextricable linkage between climate change and food insecurity, given the potential of the former to increase the risks of decreased food supply and income disruptions faced by countries and vulnerable communities.

Over the past twenty-three years, climate-related natural hazards have had a significant negative impact on general economic activities, especially the export sectors of agriculture and tourism), individual and public property (including infrastructural investments), human welfare and natural resources. The magnitude of these impacts on the general economy as well as the agricultural sector can be gleaned from **Table 3.8**.

Table 3.8: Impact of Natural Hazards on the Agricultural Sector and Economy of Antigua and Barbuda (1989 – 2010)

Description of Event	Year	Total Impact on Economy (EC\$ Million)	Impact on Agriculture	Agriculture as % of Total GDP
Hurricane Hugo	1989	200.00	1.69	0.9
Hurricane Luis	1995	461.48	16.17	3.5
Hurricane George	1998	200.00	11.01	5.5
Hurricanes Jose & Lenny	1999	247.43	21.70	8.8
Hurricane Omar	2008	-	11.62	-
Hurricane Earl	2010	-	16.23	-

Source: Ministry of Agriculture

In addition to the severity of damages caused by natural hazards, the phenomenon of global climate change poses a major threat to the stability of domestic food supplies. The agricultural and fisheries sectors are vulnerable to natural hazards which significantly damage the livelihood of producers and create dislocation to domestic food supply. Much of these losses are borne by producers, especially the small and vulnerable and the Government, which plays a critical role in the rehabilitation efforts in the sector. It is therefore critical that mitigation strategies be developed to help reduce the impact of natural hazards, and adaptation strategies and programmes be implemented to assist in building resilience to the evolving threat of climate change.

External Shocks

Rising food prices during 2007-2008 and currently, as well as the global financial and economic crisis which started during 2008 have affected all countries, by increasing unemployment, reducing income opportunities, tourist arrivals and remittances and decreasing purchasing power with very serious impacts on the vulnerable. In addition to the external economic challenges derived from increasing prices of imports, loss of export demand due to the global recession, and the ravages of natural disasters (hurricanes, floods and drought), the country's vulnerability is compounded by a number of structural constraints related simultaneously to size and distance that affect the economic performance of the national agricultural sectors. The data from the latest 2007 Report on Survey of Living Conditions (SLC) show that these phenomena have significantly increased poverty and malnutrition and the incidence of NCDs⁴.

⁴ Overview Vulnerability and Food and Nutrition Security in the Caribbean CFNI August 2007

SECTION IV: ISSUES AND PRIORITY AREAS OF FOCUS FOR FOOD AND NUTRITION POLICY

4.1 Regional and International Context

The Caribbean is a highly diverse region with countries varying widely in terms of their land mass, population, levels of socio-economic development, and vulnerability to external shocks. Agriculture remains the mainstay of the economy in four countries: Dominica, Dominican Republic, Guyana and Haiti.^{5,6} The other economies are largely service oriented, with the exception of Trinidad and Tobago which is primarily energy-based. Suffice to say, as a group, the region experienced relatively strong real Gross Domestic Product (GDP) growth rates during the period 2002-2007. However, available estimates and projections of growth rates for the period 2008 – 2011 are not encouraging, as a consequence of the current global economic and financial crisis which started in 2007.

The impact of this crisis on the economic sectors within the Caribbean (i.e. agriculture, manufacturing and tourism) has been sharp and swift. It has led to volatility in commodity export prices, declines in exports earnings, tourism inflows, foreign investment, as well as in general overall economic activity. This has had negative effects on employment aggravated the general food and nutrition security situation, and exacerbated the levels of poverty and inequity, primarily in the rural areas. It has also contributed to social dislocation through increased rural unemployment, increased reliance on food imports, and market volatilities. Even though agricultural markets have always been subject to price variations, the speed and magnitude of these changes have been more pronounced in the last three years, and have led to instability in food and input prices.

⁵ Their main agricultural products are bananas, sugar, rice (considered traditional commodities) and tropical fruits and vegetables.

⁶ Generally, the contribution of agriculture to GDP ranges from a low of 0.8% in Trinidad and Tobago to highs of 26 % and 28% in Guyana and Haiti, respectively. This does not include value generated by agro-industry and other agricultural production linkages.

Against the background of global economic and financial crises, the following challenges and opportunities related to the development of agriculture in general and food and nutrition security programmes in particular in the Caribbean region have been identified:

- **The steady decline in competitiveness of their agricultural products** to traditional preferential markets and within domestic/regional markets has been a major concern. This has been attributed to the process of trade liberalization, which has progressively eliminated import restrictions and reduced tariffs, and to domestic limitations, including institutional, structural, economic and technological factors.
- **Threats to the Region's environmental and natural resources** due to increases in the incidence and strength of hazards, coupled with the emerging impacts of climate change, and the growing vulnerability of human settlements concentrated in high risk areas where the risk is further exacerbated by inappropriate and unsuitable social, economic and environmental practices.
- **In the Caribbean, more than 50% of the total number of poor is to be found in rural areas.** A major activity in rural communities is agriculture, which is dominated by small-scale, local and community-based rural stakeholders. However, stakeholders in these rural communities are still hindered by a lack of 'space' and a lack of capacity to become involved in decision-making and project management. Consequently, there is no question that meeting the UN's Millennium Development Goal of halving poverty by 2015 will require a special focus on reinforcing the capacity of those organizations representing marginalized groups in rural areas (small farmers, agricultural workers, women and youth) through improved access to information as well as enhanced capacity for analysis and advocacy.
- **Limited coordination of regional policy and strategy initiatives in CARICOM.** Regional agricultural policy development and, more critically, implementation, have been plagued by a steady diminishing capacity for policy formulation, implementation and coordination, both within Member States and at the level of the CARICOM Secretariat. This has been a major and continuous constraint to ensuring an enabling policy environment for agriculture and food and nutrition security in the region.
- **Food and nutrition security (FNS) concerns have been another major issue in the Caribbean.** The heavy dependence of Caribbean countries on a wide range of imported foods has resulted in most of the countries being designated 'net-food importing developing countries (NFIDCs)'. With regional food import bills estimated in 2008 at US\$4.0 billion, there is the urgent need to ensure that Member States and the region as a whole, retain the capacity to produce a minimum portion of its food needs. Changing food consumption patterns (linked to the increased reliance on food imports) have heightened the level of anxiety

with regards to the rising levels of dietary-related illness and diseases (particularly NCDs) among a wider cross-section of the region's populations.

There is consensus in the Region that there is the need for a regional response to reposition the agricultural sector. This is being driven by its declining contribution to the Caribbean economy and the deepening of regional integration through the CARICOM Single Market and Economy (CSME) and between CARICOM and the Dominican Republic (DR). Within CARICOM, there has been a history of common policies and strategies for agricultural development.

Such frameworks include the 1996 Regional Transformation Programme for Agriculture (RTP) and the 2003 Jagdeo Initiative (JI), which was developed in response to a CARICOM Heads of Government call for a regional agricultural repositioning strategy that would allow the Region to decide on the sort of institutions and mechanisms needed to reposition agriculture to be implemented through interventions to alleviate nine (9) Key Binding Constraints (KBCs).

No.	Constraints	Lead Country/Agency
1	Inadequate Financing and Investment in the Sector	Barbados/Caribbean Development Bank (CDB)
2	Inefficient and Outdated Agricultural Health and Food Safety Regulations	Trinidad and Tobago/CARICOM Secretariat
3	Inadequate Land and Water Resource Management and Distribution Systems	Guyana/ Food and Agriculture Organization (FAO)
4	Deficient and Uncoordinated Disaster Risk Management	Antigua and Barbuda/FAO/IICA/CARDI
5	Market and Marketing Development and its linkages	Jamaica/Caribbean Agribusiness Association (CABA)
6	Ineffective Research and Development	St. Lucia/CARDI
7	Lack of skilled human resources	Dominica/University of the West Indies
8	Disorganized, Un-Coordinated Private Sector	St. Vincent and the Grenadines/Caribbean Agribusiness Association (CABA)
9	Inadequate Transportation System	St. Kitts and Nevis/CARICOM Secretariat

At their Thirtieth Meeting in Liliendaal, Guyana, 2-5 July, 2009, Heads of Government of the Caribbean Community declared that agriculture is of strategic significance for the sustainable development of the Community, and identified the sector as one of the drivers of the region's economic growth, contributing as it does, to rural development, GDP, employment and export earnings of the Member States of the Community. The Liliendaal Declaration on Agriculture and Food Security re-affirms political commitments to pursuing strategic approaches to transforming the agricultural sector into an

internationally competitive one with increased capacity to contribute to the sustained economic development of the Community, profitability of entrepreneurs, the economic livelihood of the rural sector and to food and nutrition security. These separate initiatives are expected to bear strongly on the environment for agricultural and rural development in the region.

The United Nations Development Assistance Framework (UNDAF) for the period 2012-2016 is expected to facilitate UN development cooperation in the Caribbean through partnerships with governments, civil society, and other developmental partners. The TCP is expected to contribute to the achievements of three of the six outcomes expected under UNDAF, namely:

- Strengthened enabling environment and social protection services and systems to reduce poverty and inequity, and increased economic participation and social inclusion, with emphasis on vulnerable groups;
- Strengthened policy, legislative framework and food production environment towards higher levels of food and nutrition security; and
- A more enabling environment established for the reduction of incidence, morbidity and mortality from HIV and non-communicable diseases.

These considerations highlighted the need for an urgent and coherent national and regional response to the food security and allied public health and nutrition challenges confronted by Antigua and Barbuda and other CARICOM Member States. They have led to the formulation of the CARICOM Regional Food and Nutrition Security Policy (RFNSP), which was approved by CARICOM Ministers of Agriculture in October 2010. A Regional Food and Nutrition Security Action Plan was elaborated and approved by CARICOM Ministers in October 2011. Clearly, a common approach that builds on the comparative advantage of individual Member States will improve availability, accessibility and affordability of food, especially for the most vulnerable. However, a consideration of paramount importance in support of a regional approach and policy for food and nutrition security is that it will enable Member States to secure for their private and public sectors as well as for households and communities throughout the region, benefits and economic externalities that they would be unable to access acting in isolation, and at a lower cost than they would otherwise face.

Antigua and Barbuda's policy is grounded in the commitments made by the country and other Member States to adhere to the Right to Food Convention as well as those made at the World Food Summit in 2009, especially Principle 3: Strive for a comprehensive twin-track approach to food security that consists of: 1) direct action to tackle hunger immediately for the most vulnerable, and 2) medium and long-term sustainable agricultural, food security, nutrition and rural development programmes to eliminate the root causes of hunger and poverty, including the progressive realization of the right to adequate food. It will also enable them to achieve Millennium Development Goal 1, namely, to reduce respectively the proportion and the absolute numbers of people who

suffer from hunger and malnutrition by half by 2015 and to measure progress towards its achievement.

The policy is set in the context of a mix of pro-actively linked national and regional policies including the Community Agricultural Policy (CAP), Common Fisheries Policy (CFP), Caribbean Cooperation in Health (CCH III), Community Agribusiness Strategy (CAS), the National Poverty Reduction Strategy (NPRS) and the National Economic and Social Transformation (NEST) Plan in support of health and nutrition, domestic food production and allied services at all stages and levels of the agri-food supply chain. There are also on-going discussions on Agricultural Risk Management and Crop Insurance Policy and Programmes.

It is in this context that this National Food and Nutrition Security Policy has been prepared, taking into account relevant regional policies and initiatives, to ensure that the national food production, processing, distribution, marketing, trade, and food safety and agricultural public health systems are capable of providing safe, adequate, nutritious and affordable food for the people of Antigua and Barbuda at all times, thereby achieving food and nutrition security.

4.2 Critical Food and Nutrition Security Issues

The critical food and nutrition problems facing Antigua and Barbuda relate to all four pillars of food and nutrition security, viz.: availability, access, consumption/utilization and stability. With respect to food availability relative to recommended population food goals, the situation analysis revealed that while total food energy is available to meet population food goals, the country faces deficits for staples, vegetables and legumes and an over-supply of energy from foods from animals, fats/oils and sweeteners. In particular, relative to recommended population food goals:

- Food energy deficit exists for staples (37%), vegetables (61%) and legumes/nuts (80%);
- Food energy over-supply exists for fruits, fats/oils (78%), foods from animals (59%) and sweeteners (56%) (FAOSTAT, 2011).

The constraints to food availability include low productivity short-term land tenures, inadequate water supply, difficulty in accessing credit, loss of arable lands to housing construction, lack of storage facilities and over-exploitation of marine food sources. The policy will therefore seek to address these constraints and align food availability with recommended population food goals through specific strategies and interventions in domestic food production and food imports.

With respect to food access, high food prices and unacceptable levels of poverty constrain households' access to foods. The latest poverty data indicate that 13.5% of households are absolutely poor, 4.4% are food poor and 20.7% are vulnerable to poverty.

Evidence suggests that social safety nets are inadequate, especially for vulnerable groups such as senior citizens, single mothers and persons with HIV/AIDS. These groups are also exposed to poor housing and living conditions, inadequate access to health care, hygiene and sanitation and social services. There is a high level of low income earners. The inability to become engaged in gainful employment has impacted adversely on the general living conditions and food security status of vulnerable groups: senior citizens, the indigent, the physically and mentally challenged, PLHIV and single parents.

Factors contributing to this vulnerable status include limited employment opportunities, incomplete and limited education, low socio-economic status, and a lack of skills. Inadequate capacity of caregivers and limited financial and human resources exacerbate the situation. There is need for better data capture and processing in order to have more accurate information on food insecurity and vulnerability. Finally, the minimum wage needs to be set and the guidelines for selecting persons to receive welfare needs to be revised.

With respect to nutritional adequacy of the population, Antigua and Barbuda is undergoing a period of nutritional and epidemiological transitions. The nutritional transition is reflected in a shift in diets away from indigenous staples (starchy roots and cereals), locally grown fruits, vegetables, legumes, and limited foods from animals, to diets that are more varied and energy dense, consisting of more processed foods (including processed beverages), more food from animals, more added sugars, foods that are high in fats/oils and sodium, and often more alcohol.

This shift in diets is ultimately reflected in the epidemiological transition which is seen in a reduction of under-nutrition and infectious diseases and an increase of overweight and obesity, two of the main risk factors in nutrition/food-related non-communicable chronic diseases (diabetes, hypertension, stroke, cardiovascular diseases and some forms of cancers). These diseases are the main public health problems in Antigua and Barbuda. Additionally, iron-deficiency anaemia remains a problem due in part to problems with food and nutrition security in some communities. Also, the prevalence of un-supplemented exclusive breastfeeding up to 6 months remains low and a growing sector of the population remains socially deprived and nutritionally vulnerable.

Finally, with respect to stability, Antigua and Barbuda is a small island state that is subject to frequent shocks from external economic forces and vulnerable to hurricanes, droughts and wind storms. Global changes in climate bring more frequent and higher risk of natural disasters that have the effect of reversing several years of economic growth. There is therefore need for disaster preparedness and mitigation strategies to protect agriculture, social infrastructure, the ecosystem and housing.

In developing the National Plan of Action (NPA), it is important to distinguish between immediate, underlying, and basic root causes of food and nutrition security problems. These projects must be implementable at sectoral and community levels within the limitations of existing resources. A critical role of the Antigua and Barbuda Food and Nutrition Council will be to assess and monitor the food and nutrition situation at the national level and for

other stakeholders - Public and Private Sectors and NGOs/CBOs to plan, implement, monitor and evaluate nutrition interventions at all levels using the participatory approach.

The Antigua and Barbuda Food and Nutrition Security Policy must, therefore, present that portfolio of government interventions, both direct and indirect, to be utilized in promoting agriculture and food sector objectives by influencing the organizational and economic environment within which the food system functions. The policy instruments contained therein, must address all aspects of the food system, affecting the entire conceptual spectrum, ranging from production, marketing, processing, distribution, all the way to consumption and nutrition. The policy interventions must address both micro- and macro issues and must be so designed as to:

- Resolve issues of malnutrition and food security
- Involve policy and programme design and implementation that cut across departmental divisions
- Consider a wide array of data that can be disaggregated down to the household level (or even to the intra-household level)
- Deal with conflicting policy objectives that arise between producers and consumer interests, urban and rural differences, primary and secondary production, budgetary prioritization between consumption support and investment in agriculture, and short- and long-run decisions

4.3 Guiding Principles

The preparation of the Policy Framework is based on the following principles:

Evidence-based

- A solid and concise FNS situational analysis was undertaken to ensure that the Policy and the subsequent Action Plan are evidence-based. The analysis will not be a research study, but will clearly indicate what the key FNS problems and their causes are and which population groups/households are most affected by these problems. Thus, a causality and vulnerability analysis was conducted. Maximum use was made of available documentation which was complemented by information obtained by interviewing key informants, when necessary.

Good Governance Practices/Right to Food Principles

- The FNS Policy and Action Plan will incorporate good governance practices or Right to Food principles, including issues related to Participation, Accountability, Non-discrimination, Transparency, Full Respect for Human Dignity, Empowerment, Rule of Law, Inclusion and Considerations of Equity, and Responsiveness to Needs and Priorities.

Policy Coherence

- The FNS Policy and Action Plan will be coherent with underlying tenets of regional policies and actions and initiatives such as the RFNSP, the RFNSAP, the CARICOM Community Agricultural policy, the Jagdeo Initiative, the Liliendaal Declaration, Caribbean Cooperation in Health III, etc. and relevant national policies, and focus on translating into action these political statements and policies related to and supportive of good health and nutrition, rural and food crop/livestock/fisheries development and agro-food production, processing, marketing and distribution.

Protection of the Natural Resources

- Recognizing therefore that the forests and fisheries constitute substantive resources for food and nutrition security to be protected through adaptation to climate change.

Agriculture and Food Production

- Recognizing the vital role of the food and agriculture sector in the quest for national food and nutrition security and the need to strengthen its ability to attract youth and entrepreneurship as well as adequate investment in agricultural production, post-harvest handling, storage, distribution and exchange as an integral part of the private sector of Barbados and the Caribbean region and a major source of employment and incomes for a large segment of the population.

SECTION V:

FOOD AND NUTRITION SECURITY POLICY

5. FOOD AND NUTRITION SECURITY POLICY.

5.1 Introduction

This section provides the specific policy statements and associated strategies, which are organized under the four pillars of food and nutrition security, for addressing the critical food and nutrition problems of Antigua and Barbuda. The purpose of these policy statements and strategies is to provide clear guidance with respect to the actions that are to be pursued by the Government to improve the food security status of the population. The long-term goal of the food and nutrition security policy is to ensure that all individuals at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Concurrently, and in conjunction with the action plan, this Policy will support related actions within each of the four pillars of food security to address the critical concerns to enhance the nutritional status of the people of Antigua and Barbuda.

5.2 Vision and Strategic Objectives of the Antigua and Barbuda Food and Nutrition Security Policy

The long-term goal of the Policy is to achieve sustainable food and nutrition security and to eliminate all forms of malnutrition in order to have a well-nourished and healthy population that can fulfil its aspirations to good health and economic well-being and effectively contribute to national socio-economic development. More specifically, the Policy will seek to:

- Ensure that a sufficient quantity of nutritious food of appropriate quality is available to all people in Antigua and Barbuda, through increased domestic production and a **sustainable** level of imports, with special emphasis on a structured food import replacement programme (**Food Availability**).

- Ensure that all individuals in Antigua and Barbuda have access to adequate resources to acquire appropriate foods for a nutritious diet (**Food Accessibility**).
- Ensure that all individuals in Antigua and Barbuda reach a state of nutritional well-being through food choices and consumption that reflect Recommended Dietary Allowances (RDAs) (**Food Utilization/Nutritional Status**).
- Ensure that all people in Antigua and Barbuda have access to adequate, safe and nutritious food at all times, are not at risk of losing access to it due to shocks, and consume/utilize foods that reflect physiological needs (**Stability of Food Supply**).

This will entail the formulation and implementation of the activities and programmes set out below in order to:

- Increase household food production and trading
- Improve income generation and job creation opportunities
- Improve nutrition and food safety
- Increase safety nets and food emergency management systems
- Improve analysis and information management system
- Provide capacity building
- Hold stakeholder dialogue

5.3 FOOD AVAILABILITY:

Promote the sustainable production of safe, affordable, nutritious, good quality, Caribbean food commodities / products.

Policy Statement 1:

The Government of Antigua and Barbuda will enact a Food Security Law to ensure domestic production of a minimum threshold of a selected basket of foods for which the resource endowment will provide production capacity and capability as well as national comparative advantage. This law will be supported by adequate production and trade policies to increase production and productivity of the domestic agriculture and agro-processing sectors and protect local industries from unfair external competition.

The specific trade policies will aim to promote the development of and access to domestic and regional markets for domestic food products and are needed both in terms of reducing food prices and income instability and increasing industry

profitability. Under the Food Security Law, the Minister of Agriculture will be empowered to determine and adjust the specific quantities and types of crops and livestock products to be covered from time to time. Imports of these products or close substitutes shall be subject to approval by the Ministry of Agriculture.

Policy Statement 2:

The Government of Antigua and Barbuda will promote an aggressive import substitution programme to reduce the imports of agri-foods identified as critical to contributing to food and nutrition security in the country. This will be effected by:

- Identifying commodities that can be produced competitively and in required quantities based on resource endowment and comparative advantage
- Providing trade policy support for selected commodities/products
- Conducting value chain analyses to diagnose and address gaps/constraints in the development of the identified industries
- Developing action plans for the selected industries, with all actors along the value chain
- Facilitating dialogue among all relevant stakeholders along the value chain to ensure consensus building on strategic actions to be implemented
- Supporting the formulation and implementation of a comprehensive set of industry support measures to address identified challenges and to exploit opportunities
- Supporting the elaboration and implementation of an effective and efficient governance model for each targeted industry
- Ensuring an enabling environment for agro-industrial promotion and development

Policy Statement 3:

The Government of Antigua and Barbuda will promote increased availability of safe, affordable, nutritious, good quality food commodities/products with an emphasis on nationally and regionally produced foods through the identification and promotion of priority commodities in which:

- Priority commodities will be selected on the basis of the promotion of a nutritionally balanced diet comprised of local food products and guided by the Dietary Guidelines for the CARICOM Region.

- Criteria for selection of the commodities/products will be based on factors such as market demand, competitiveness, nutritional composition/elements, domestic resource endowment and their strategic importance.
- Small producers (farmers, fisherfolk, cottage food processors etc., with a focus on gender) shall be critical in the production of the identified food commodities/products.
- The widest possible utilization of local products for domestic consumption in an aggressive buy-local campaign will be encouraged.

Policy Statement 4:

The Government of Antigua and Barbuda will promote increased production and productivity of identified crops, livestock and fish commodities/products by:

- Generating and transferring appropriate technology in food crop cultivation and livestock management through market driven research programmes at existing institutions and cooperation with international development partners
- Identifying, documenting and disseminating best practices for sustainable production of identified food crops, livestock, fish and other food commodities/products
- Developing a seed and genetic material plan, seed bank and implementation mechanism for the production/importation, conservation, evaluation and distribution of high quality planting and genetic material
- Promoting the adoption of new/improved technologies in livestock breeding and production to ensure the preservation of existing and where necessary, the improvement of genetic stock
- Promoting the production and utilization of local raw material in livestock feed production.
- Promoting the sustainable exploitation of the country's fisheries resources and exploring greater investments in aquaculture to increase the availability of fish and fish products
- Promoting on-farm mechanization through greater use and improved access to modern and appropriate small-scale equipment/tools
- Promoting and utilizing Good Agricultural Practices by producers to include, inter alia:
 - Promoting and utilizing appropriate fertilizer practices through proper soil testing and application types and levels

- Promoting and utilizing soil conservation practices to reduce soil slippages, enhance soil fertility and facilitate increased land productivity on a sustainable basis
- Encouraging more effective, efficient and sustainable use of agro-chemicals and pharmaceuticals in agri-food production systems
- Promoting and utilizing Integrated Pest Management in agri-food production systems
- Promoting and utilizing traceability in agri-food production systems.
- Promoting and utilizing effective and efficient land and water management practices in agri-food production systems
- Promoting and utilizing environmentally sound waste disposal and recycling systems in the production processes
- Promoting and utilizing sustainable fisheries management practices

Policy Statement 5:

The Government of Antigua and Barbuda will create an enabling environment for increased production and productivity and improved marketing of identified crops, livestock and fish commodities/products through:

- Establishing a modern efficient and effective institutional structure and mechanism to facilitate growth and development of the sector by:
 - Restructuring the Ministry of Agriculture and related Agencies in order to provide more effective and efficient support to producers
 - Strengthening the institutional and technical capacity for research and development so that it is demand driven and responsive to the needs of producers through the development, adaptation and adoption of appropriate technologies and methods to improve agricultural productivity
 - Fostering greater synergies between extension and research and development to ensure the effective dissemination of new and existing technologies to stakeholders
 - Expanding and strengthening the institutional and technical capacity of extension services to provide better support and more rapid and extensive transfer of new and innovative technologies to primary

producers and other actors along the value chain as well as for linking producers to markets

- Strengthening the institutional mechanism for inter-sectoral linkages (agriculture, environment, tourism, health, education etc.) to prevent duplication of effort and wastage of resources
- Strengthening the Ministry of Agriculture and related Agencies' capacities to provide market intelligence and information to producers and end users, thereby reducing information asymmetries and creating greater marketing opportunities along the value chain and encouraging greater use of market intelligence information among value chain actors
- Promoting increased finance and investment to the sector by:
 - Increasing Government budgetary allocation to the sector
 - Aggressively accessing and securing, Overseas Development Assistance (ODA)
 - Providing business facilitation and critical support services to expand and attract new foreign direct and domestic investments to the sector through investment promotion actions
 - Expanding the pool of loan-able funds and supporting the creation and implementation of innovative financial instruments
 - Facilitating the accessibility and affordability of credit to producers, including agro-processors to enable them to invest in new agri-business ventures and technologies
 - Facilitating the delivery of credit to the agri-food by financial institutions and micro-credit agencies, by supporting the strengthening of existing institutions and, where necessary, creating new ones
 - Providing access to low cost funding and risk management facilities and mechanisms to targeted farming population and processors
- Reducing the incidence of praedial larceny through the implementation of a holistic approach involving improved legislation, traceability systems, monitoring, surveillance, enforcement and public awareness
- Strengthening the overall agricultural education framework and increasing the effectiveness and responsiveness of the relevant institutions in providing

leadership in education, research, training and policy formulation and planning to support the sustainability of the agricultural sector

- Effectively managing trade policies to ensure that they are conducive to agricultural development by providing local producers with a level playing field on which to compete with their foreign counterparts
- Improving the access and availability of land to producers in order to facilitate the expansion of agricultural production by creating a single, viable and sustainable approach to the development of agricultural lands through the promulgation of an Agricultural Land Utilization Policy

Policy Statement 6:

The Government of Antigua and Barbuda will create the enabling environment for the production and marketing of local foods by:

- Providing improved incentives to nationals to attract investment in agriculture
- Identifying and progressively closing the infrastructure investment gap required to meet the food and nutrition security needs of the most vulnerable group
- Improving market access for small producers through improved market information and buyer/seller coordination and by promoting the value chain approach
- Facilitating improved access to and utilization of land through the Antigua and Barbuda Land Use Policy
- Developing/Strengthening national/regional training curricula with a strong practical element to certify relevant workers at various levels aimed at improving management and technical capabilities
- Improving access to the farmers' revolving fund for production inputs
- Rationalizing the credit policy to enhance access, improve governance and provide affordable interest rates
- Supporting regional and international initiatives that benefit national agricultural development and food and nutrition security

Policy Statement 7:

The Government of Antigua and Barbuda will put in place Quality Management Systems and Measures, and establish the related legislative framework (for example, Hazard Analysis and Critical Control Point-HACCP, ISO 9001:2008, ISO 17025,

ISO 14001) throughout the food production and processing sector (FDA Food Safety Modernization Act (FSMA) and similar legislation in the European Union) to ensure the certification of farmers and agro processors by:

- Accessing and facilitating technical assistance for HACCP certification and also seeking as far as possible to assist entities through institutional support and financing to attain ISO certification
- Supporting systems that improve equipment, quality, and food safety management that are more affordable to increase access to small companies

Policy Statement 8:

The Government of Antigua and Barbuda will seek to increase the cost efficiency of value added production for locally produced and imported semi-processed foods and livestock products by:

- Facilitating the creation of production clusters and value chains to satisfy increasing sophistication of consumer demand
- Strengthening Producers' Organizations and sustained capacity building of rural producers to facilitate collaborative production planning, supply to intermediaries, and marketing of foods
- Constructing and operating critical infrastructure such as post-harvest facilities, abattoirs, cold storage, packing houses through strategic public/private sector partnerships
- Promoting and implementing systems for food safety- traceability, residue testing, standards and grades
- Developing Agro Parks at the Agricultural Development Corporation facility to facilitate synergies within the production and processing, packaging and distribution of selected foods in one place in order to attract investment to the sector and strengthen the linkages between producers and end users of fresh and processed foods
- Providing assistance in strengthening the linkages among the actors along the value chain (processors, importers, hotels, restaurants, fast food, etc.) through dialogue, coordination and technical support and advice from the Ministry of Agriculture and its Agencies
- Increasing efficiency of value addition in food processing, based on regulated (using necessary safeguards) levels of imported raw materials, in order to impact the cost of production and the price of food to consumers
- Implementing measures to reduce post-harvest losses

Policy Statement 9:

The Government of Antigua and Barbuda will formulate and implement sustainable land and water management systems by:

- Implementing the Antigua and Barbuda Land Use Policy to ensure the adoption/utilization of production systems that are appropriate to production zones and sizes of enterprises
- Promoting the adoption of efficient, effective and sustainable soil and water management practices including:
 - Drainage and irrigation
 - Water harvesting
 - Soil and water conservation
 - Watershed management
 - Adoption of practices to mitigate land based sources of water pollution and land degradation
- Establishing an institutional mechanism for better integration and coordination of water management initiatives

Policy Statement 10:

The Government of Antigua and Barbuda will create and exploit all trade related agreements that will benefit domestic agriculture by:

- Identifying elements of trade-related agreements that can benefit domestic agriculture
- Developing mechanisms and strategies to exploit benefits that can be derived from trade-related agreements

5.4 FOOD ACCESSIBILITY

Ensure access of households and individuals to nutritious, safe and affordable food at all times with special attention to the food insecure and nutritionally vulnerable groups.

Policy Statement 1:

The Government of Antigua and Barbuda will improve the socio-economic conditions of the food insecure and nutritionally vulnerable groups by:

- Implementing improved mechanisms for measuring and monitoring food insecurity and poverty, including:
 - Identifying and mapping vulnerable groups (taking a gender sensitive approach) that are prone to chronic and /or transitory food insecurity, and establish a national database of this information
 - Compiling a basic dataset of food insecurity/vulnerability indicators
 - Enhancing data collection methodologies
 - Utilizing evidence-based research, such as Surveys of Living Conditions and Household Budget Surveys as a basis for food insecurity and poverty measurement, planning and monitoring
 - Strengthening the capacity and capabilities of relevant agencies to monitor food insecurity and poverty vulnerability factors
 - Building national capacity in the use of Food Insecurity and Vulnerability Information Mapping Systems in order to identify food insecurity, under-nutrition and malnutrition at the household level
- Ensuring that economic opportunities for sustainable livelihoods are created, enhanced, and/or expanded by:
 - Improving rural livelihoods, especially that of small producers, agricultural labourers and marginalized urban dwellers, through the promotion of entrepreneurship and home food production (vegetables, root crops, poultry, small ruminant rearing), utilizing backyard/container/protected gardening technology
 - Expanding production processes along the food chain to include post-harvest handling, storage, food processing and preparation, as well as strengthening the linkages with other alternative livelihood activities, in order to expand employment opportunities for producers and broaden the household income base
 - Revising poverty reduction programmes to encompass productive safety net mechanisms/interventions and complementary measures to preclude a dependency syndrome and promote sustainable livelihoods, and food and nutrition security

- Developing and implementing appropriate measures and programmes for transition and absorption of displaced workers, especially in rural areas
- Promoting human capital development among poor and vulnerable groups through the widening of the scope and reach of vocational training programmes, adult learning certification programmes, and continuous learning programmes
- Expanding apprenticeship and other welfare-to-work programmes, in collaboration with the private sector to equip relevant groups with the necessary skills in preparation for entry into the workforce
- Promoting increased access of affordable and innovative means of credit to vulnerable groups through new and existing microfinance credit schemes and other relevant business support services to finance new and existing business ventures
- Implementing the Agricultural Land Use Policy in order to promote increased access to land through the Land Divestment Programme
- Developing and implementing interventions to enable vulnerable individuals and households to formalize asset ownership
- Enhancing coordination and strengthening of community support systems through capacity building of Community Based Organizations (CBOs), Non-Governmental Organizations (NGOs), Faith-Based Organizations (FBOs) and Producer Organizations to provide greater support to their members and communities for livelihood creation and enhancement
- Improving and ensuring equitable access to basic public goods and services (such as water, electricity, sanitation, education, roads, healthcare, etc.) and community infrastructure through existing programmes and institutions to improve human welfare and facilitate investment
- Ensuring access of the population to minimum basic food items providing recommended dietary allowance by:
 - Introducing appropriate fiscal measures
 - Using ‘moral suasion’ in collaboration with private sector business interests

- Implementing statutory regulations and appropriate market interventions as necessary
- Promoting a minimum cost nutritious food basket to inform the setting of minimum wage, healthy eating, and monitoring food prices, including the list of zero-rated items
- Facilitating comprehensive and accurate market information dissemination to the population, including the aggressive use of various media and social networking tools

Policy Statement 2:

The Government of Antigua and Barbuda will improve the efficiency and effectiveness of the food marketing and distribution system by:

- Upgrading of the Central Marketing Corporation (CMC) and the establishment of retail market facilities and packaging centres of public goods to facilitate efficient markets and food safety/hazard control and to improve food availability and lower market prices
- Strengthening the capacity and capability of CMC Production Marketing Information System (PROMIS) Department for the implementation of a National Market Intelligence system in order to facilitate greater linkages between buyers and sellers and reduction of information asymmetries
- Improving farm to market channels, e.g. access roads and post-harvest grading and handling (Support the rehabilitation and maintenance of the farm/feeder road network)
- Establishing a national network of strategic food stock reserves in partnership with the private sector as a risk mitigation response mechanism
- Promoting greater market integration through the construction, rehabilitation, and operation of post-harvest, storage, and distribution facilities, utilizing public and private sector partnership arrangements
- Establishing and supporting producer organizations to assist in the collective marketing of agricultural produce
- Encouraging community bartering of agricultural produce in the absence of monetary provisions
- Upgrading of the transportation infrastructure by fostering greater use of refrigerated trucks and appropriate packaging material, and by maintaining

cold chains for crops and livestock products to ensure quality assurance and food safety

- Improving port facilities and logistics and reducing bureaucratic rigidities
- Ensuring that food imports conform to all public health and commerce regulations and standards of food safety, including storage and transportation
- Facilitating island-wide access to food
- Developing emergency response mechanisms to assess and address general food accessibility at times of ad hoc shocks, such as natural disasters and price increases
- Ensuring that appropriate licenses and other standards are enforced throughout the food distribution system by collaborating with health, national security and industry and commerce authorities

Policy Statement 3:

The Government of Antigua and Barbuda will improve the social protection system, including the strengthening of the safety net system which provides coverage for vulnerable groups (women, elderly, children, youth, and persons with disabilities) by:

- Preparing and implementing a modern Social Protection Plan, utilizing a strategic approach which details the country's medium to long-term priorities and actions in relation to social protection
- Establishing a National Social Protection Commission to oversee coordination, strategic planning and monitoring and evaluation of social protection
- Evaluating and restructuring of the social safety net programmes to allow for proper identification, targeting and provision of services for the vulnerable. A life cycle approach and gender mainstreaming will be key to other planning and decision-making processes in respect of the restructuring of the programmes, and in the consideration of food security status in the identification of social assistance beneficiaries
- Improving the coordination and collaboration among stakeholder agencies to ensure that efforts are not duplicated, resources are properly apportioned, information is shared, gaps are better identified and bridged and that efforts are mutually supported
- Establishing a National Management Information System database to provide details of each recipient and the benefits to be derived from the various

programmes, which would allow for real-time evaluation of the impact of the programmes and better targeting, and to avoid abuse of the system

- Promoting general awareness of the existence and provisions of social assistance programmes, using various forms of media and social networking tools
- Establishing reliable measures for sustained financing of the requisite range of welfare support programmes. In this regard, in addition to traditional means of funding, Government shall also seek to promote and encourage multi sector partnerships between public and private sectors to address the needs of the vulnerable
- Encouraging and strengthening the capacity of households to provide for their vulnerable members
- Fostering general awareness about the needs of vulnerable groups so as to engender greater participation by civil society in helping to meet their food and other needs
- Improving and expanding the school feeding programme in order to provide adequate and nutritious food for the children
- Providing appropriate access to food for all wards of the state in institutional care

Policy Statement 4:

The Government of Antigua and Barbuda will ensure that persons made vulnerable and food insecure during emergencies caused by natural hazards, economic shocks and food shortages, have access to food by:

- Outlining in the National Food Emergency Plan the national strategy for collaboration with the private sector, NGOs, CBOs, FBOs, donor agencies and disaster relief agencies for temporary assistance to meet the basic food needs of vulnerable and food insecure persons
- Integrating food security provisions into emergency assistance strategies for extremely vulnerable groups under existing social welfare programmes and social safety nets
- Making provisions for the special dietary needs of certain groups, including the chronically ill, infants, the elderly, pregnant women and persons with disabilities
- Using fiscal measures and trade policy to ensure the accessibility of low cost baskets of nutritious food to the vulnerable population

5.5 FOOD UTILISATION

Promote healthy lifestyles and the commercialization and consumption of safe, affordable nutritious and good quality food commodities / products.

Policy Statement 1:

The Government of Antigua and Barbuda will increase consumer awareness of nutritional standards and food safety through:

- Promoting, good nutrition practices, wise purchasing, storage and utilization of food products by:
 - Implementing a national mass media campaign that emphasizes the health and nutritional benefits of selected national foods
 - Utilizing outstanding National personalities to promote the consumption of nutritious national/regional foods
- Increasing awareness among policy makers and planners of the extent and severity of nutritional problems and of their causes, of the economic benefit of interventions, and of how activities under their control can affect the nutritional status of different socio-economic groups
- Encouraging and supporting the inclusion of the community in the identification of their own nutritional problems and the implementation, monitoring and evaluation of programmes
- Promoting and facilitating linkages with civil society, private sector and consumer advocacy groups to increase their participation in the process of food and nutrition security planning and implementation
- Ensuring prevention and management of infectious diseases through standardized food safety programmes including inspection of restaurants and food shops and certification of food handlers
- Promoting public awareness of nutritional standards by:
 - Protecting appropriate infant (breastfeeding) and young child feeding practices
 - Supporting the development of population dietary (nutritional) goals
 - Sensitizing the public about food based dietary guidelines.

- Analyzing and disseminating data and information on the cost of a nutritionally balanced economical food basket with a view to monitoring access to food for vulnerable groups
- Encouraging, assisting, developing and promoting standards of care for the elderly, mentally and physically challenged and persons living in institutions

Policy Statement 2:

The Government of Antigua and Barbuda will promote consumer protection through improved food quality and safety by:

- Strengthening existing legislation and regulations and enacting new laws, where necessary, to foster the implementation and enforcement of food safety standards in keeping with international standards
- Coordinating national guidelines for maintaining food safety and traceability programmes along the food value chain
- Reviewing and upgrading the Food and Drug Act to incorporate standards for food and nutrition labelling
- Developing and enacting consumer protection legislation to include accurate labelling of food for nutrition content and redress measures
- Harmonizing national food standards based on the Codex Alimentarius and CARICOM and international standards
- Developing and disseminating information on food safety and health hazards and standards for food and nutrition labelling
- Promoting and increasing its investments in potable water, sanitation and waste disposal especially for vulnerable populations by:
 - Strengthening the monitoring of water and sanitation in communities and institutions
 - Providing facilities to communities for waste disposal
- Upgrading the abattoir, fish, and meat market facilities, on a regular basis
- Training of abattoir, fish, and meat market personnel in Hazard Analysis Critical Control Points (HACCP)

Policy Statement 3:

In recognition of the challenges facing the national population with respect to increasing levels of obesity, non-communicable chronic diseases (NCDs), persistent iron deficiency anaemia and pockets of under nutrition, the Government of Antigua and Barbuda will promote and support appropriate diets, physical activity and other healthy lifestyle behaviours through:

- Promoting, protecting and supporting appropriate infant and young child feeding practices by:
 - Developing, implementing, monitoring and evaluating a comprehensive *national policy and national plan of action* on infant and young child feeding
 - Identifying and allocating adequate *resources* – human, financial and organizational – to ensure the plan’s timely and successful implementation
 - Establishing a multi-sectoral body (government, private sector, and civil society body with the requisite expertise to perform an advisory role on all matters concerning infant and young child feeding
 - Ensuring that every facility providing maternity services implements international best practices and follows the Ten Steps to Successful Breastfeeding set out in the joint WHO/UNICEF statement "Protecting, promoting and supporting breastfeeding: the special role of maternity services"
 - Undertaking necessary actions to give effect to the aim and principles of all Articles of the International Code of Marketing of Breast-Milk Substitutes and subsequent relevant World Health Assembly resolutions in their entirety
 - Reviewing/upgrading and enacting legislation to protect the breastfeeding rights of working women and establish means for its implementation and enforcement
 - Developing and implementing a framework and/or measures for promoting the responsible marketing of foods and non-alcoholic beverages to children, in order to reduce the availability to them of foods high in saturated fats, trans-fatty acids, free sugars, and salt
- Promoting consumption practices consistent with national population dietary goals and in line with international standards through:

- Establishing and implementing food-based dietary guidelines and healthier composition of food by reducing sodium/salt levels, eliminating industrially produced trans-fatty acids, decreasing saturated fats, limiting free sugars
- Developing the technical capability within the relevant ministries for operating an updated system for monitoring the cost of a nutritionally balanced food basket
- Implementing programmes of incentives and dis-incentives, where appropriate, for nutritious and less-nutritious foods, respectively
- Providing accurate and balanced information for consumers to enable them to make well-informed, healthy choices by implementing social marketing programmes (school workplace, community)
- Strengthening the national nutrition surveillance systems in accordance with WHO standards, to monitor the nutritional status of the population and to identify those at risk of nutrition-related disorders by:
 - Implementing a strategy of universal assessment for all children (0 to 18 years old) to identify those at risk for malnutrition (deficiency diseases, overweight, obesity and non-communicable diseases)
 - Ensuring supervision of dietary intake, physical activity, and the related burden of disease to include food borne illnesses and behavioural risk factors for under/over-nutrition
- Developing and implementing national guidelines on physical activity and dietary intake to promote health and wellness in schools, workplaces and communities
- Providing nutritional standards and guidelines to strengthen programme development and implementation in all sectors through:
 - Incorporating nutrition principles into competency development and core curricula in schools and in professional and industry training
 - Increasing the proficiency of persons giving nutrition information to the public
 - Strengthening training programmes for nutrition and dietetic professionals to meet the needs of the national population by

establishing, on a sustainable basis, an internship programme as an integral element of the curriculum, and ensuring a successful outcome to the collaborative efforts between MOH and the relevant training institutions

- Promoting nutrition training among food producers to assist the development and promotion of healthy, desirable food products and the development of standardized portions and labelling
- Implementing policies and programmes to detect, prevent and manage micronutrient deficiency by:
 - Promoting healthy practices among women of child bearing age and in the prenatal period, placing emphasis on micronutrient rich foods such as iron, folate, zinc, etc.
 - Monitoring and strengthening the distribution system for iron/folate tablets in antenatal clinics
 - Implementing food and nutrition supplementary programmes for vulnerable groups such as women of childbearing age, pregnant and lactating women, the elderly, children and adolescent girls
 - Conducting systematic reviews of available evidence on effective approaches to food fortification of staple products
 - Undertaking pilot fortification of commonly used staple foods based on available evidence and best practices
 - Reviewing and strengthening food fortification programmes and legislation

Policy Statement 4:

The Government of Antigua and Barbuda will promote and support the utilization of schools and other institutions to provide entry points for interventions aimed at the prevention and control of identified nutrition conditions and factors that influence food tastes and preferences. In this context, the policy will seek to address the following critical areas:

- Developing and implementing a national comprehensive school nutrition policy through:
 - Supporting the development of curricula at different levels of the education system - teacher training, early childhood institutions, primary and secondary schools - that include

nutrition and health and family life education for good health and lifestyle choices

- Developing national guidelines for the preparation and sale of meals that promote health and wellness to school children
- Adopting a policy that the local content of the meals provided under national school feeding programmes should increase in line with the national food import replacement policy/strategy
- Reviewing the school gardening programmes to identify strategic areas for intervention, including the provision of technical support, promotional and other relevant materials, focussing on nutrition, growing food, and dietary choices
- Developing national social marketing campaigns to encourage nutritious dietary/food choices in schools communities
 - Recruiting qualified nutrition officers, in adequate numbers, to monitor implementation of school nutrition policy
- Promoting, supporting and protecting appropriate infant and young child feeding practices
- Promoting the development and implementation of national school health and nutrition policies
- Establishing mechanisms for the effective monitoring and evaluation of school health and nutrition programmes
- Ensuring that the meals provided under national school feeding programmes have a high input of local/regional foods
- Encouraging and supporting an environment conducive to increased physical activity in schools, work places and the wider community in compliance with WHO guidelines
- Influencing food tastes and preferences in the education sector starting at the level of pre-schools through tertiary level to prevent and militate against identified nutrition-related conditions
- Supporting the expansion and promotion of competitions about food and nutrition in schools

- Reviewing the school gardening programmes to identify strategic areas for intervention such as the provision of technical support and promotional materials
- Supporting the development/strengthening of curricula at the Department of Teacher Education and at pre-school, primary and secondary school levels to include nutrition and Health and Family Life Education (HFLE)
- Enhancing the human resource capital within the relevant Ministries to promote healthy diets and lifestyles
- Promoting the availability of foods in line with recommended national population dietary goals through:
 - Promoting the use of food-based dietary guidelines
 - Promoting domestic production and aligning food imports in keeping with national dietary food goals
 - Strengthening the nutrition surveillance system to monitor the nutritional status of the population (throughout the course of life) and identify those at risk of nutrition related conditions
 - Analyzing and disseminating data on the cost of a nutritionally balanced economical food basket with a view to monitoring access to food for vulnerable groups
- Utilizing pre-schools, primary and secondary schools as entry points for interventions to prevent and mitigate some of the identified nutrition conditions, and to influence food tastes and preferences in the education sector
- Supporting actions against substance abuse

Policy Statement 5:

The Government of Antigua and Barbuda will promote early health care including nutrition counselling services for PLHIV by:

- Strengthening nutrition programmes to enhance its capacity to manage infectious diseases such as HIV/AIDS
- Promoting early health care and counselling services for people with HIV/AIDS

Policy Statement 6:

The Government of Antigua and Barbuda will promote nutrition and other preventative measures to control micronutrient deficiencies by:

- Strengthening nutrition surveillance programmes to better identify those at risk for micronutrient deficiencies
- Intensifying interventions for the management of micronutrient deficiencies
- Promoting nutrition education programmes to reduce micronutrient deficiencies

5.6 STABILITY OF FOOD SUPPLY

Create an effective disaster preparedness and management system that can efficiently deal with the immediate and short-to-medium term food and nutrition security consequences of economic and financial shocks and natural disasters (hurricanes, drought, flooding, and earthquakes) while at the same time strengthen the resilience to those consequences among the most vulnerable population groups.

Policy Statement 1:

The Government of Antigua and Barbuda will support adaptation and mitigation strategies as a means of enhancing the stability of food and nutrition security over time among the vulnerable groups as a result of financial and economic shocks through:

- Facilitating the establishment of a National Information Early Warning System (NIEWS), as part of a Regional Information Early Warning System (RIEWS), that ensures, inter alia, the national capability for the timely detection, prevention and resolution of threats to food and nutrition security as a result of economic and financial shocks
- Improving national capacity for and conducting vulnerability mapping by:
 - Identifying national vulnerability/social protection policies and associated relevant legislative provisions as well as an analysis of the institutional framework for their implementation
 - Compiling a basic dataset of vulnerability/food insecurity indicators
 - Analyzing on-going social welfare/food access programmes and their inter-linkages, within the framework of the Right to Food Assessment Guidelines
 - Building capacity at the national level in the use of the **Food Insecurity and Vulnerability Information Mapping Systems (FIVIMS)** to identify food insecurity, under-nutrition and malnutrition at the household level

- Conducting food insecurity and vulnerability mapping of vulnerable populations
- Improving human capacity for the translation of information and data into policy decisions and the design of intervention strategies to address financial and economic threats by training a critical mass of personnel from various sectors, including the private sector, development partner institutions, universities and other academic institutions, in critical aspects of food and nutrition security issues, data analysis and interpretation, policy analysis and planning
- Forging stronger relationships with member states and international agencies to improve information sharing especially during crises
- Encouraging and participating in mechanisms to reduce poverty levels and provide increased opportunities for women and youth to become more involved in the food and agricultural sectors by:
 - Creating a Venture Capital Fund, with a particular focus on women and youth, to support innovative and creative value addition activities for traditional and non-traditional commodities along the supply value chain
 - Establishing a Nation-wide inventory of vulnerable groups (farmers, producers groups, communities) and the levels of vulnerability (vulnerability analysis and mapping)
 - Expanding (where needed) and linking of relief interventions with longer term structural improvement measures
 - Establishing a food crisis fund that will cater to the needs of the most vulnerable
 - Identifying and establishing a portfolio of social welfare programmes, safety nets and other policy prescriptions (e.g. protecting breastfeeding) that can be applied in times of crises
 - Promoting the establishment of additional safety nets for extremely vulnerable groups
 - Establishing a mechanism that is triggered when there is a food crisis and consensual agreement on procedures to be followed at country level after a disaster (*preparedness strategy*)

Policy Statement 2:

The Government of Antigua and Barbuda will support adaptation and mitigation strategies as a means of enhancing the stability of food and nutrition security over time in domestic food supplies and household access from threats of natural disasters and climate change through:

- Developing and implementing Agricultural Disaster Risk Management and climate change adaptation and mitigation strategies including risk management schemes for the agriculture, fisheries and forestry subsector
- Pursuing climate resilient development which focuses on **adaptation** as well as mitigation strategies for the food and agriculture sector. In respect of **mitigation**, priority focus shall be placed on coastal management (which affects the fishing industry) as well as sustainable forest management for reducing emissions while improving livelihoods and ensuring their stability over time. This will also support a reduction in deforestation, improved watershed management and protection of carbon reservoirs
- Promoting and encouraging capacity enhancement within relevant ministries and public entities, research institutions and the hydro-meteorological departments and fostering links with Institutions such as the University of the West Indies (UWI), the Caribbean Emergency Disaster Management Agency (CEDMA), the Caribbean Institute of Meteorology and Hydrology (CIMH), the Caribbean Community Climate Change Centre (CCCCC) and the National Meteorological Office so that they can provide accurate and timely climate information to the farming community. In this area, within the framework of the ISFNS, the Government of Antigua and Barbuda will seek technical and financial assistance for institution building and capacity development at the national level from bilateral and multilateral partners and the International Finance Institutions.
- Integrating climate management considerations into the National Agricultural Disaster Risk Management Programme as well as into programmes to develop farm management and build industry and farming community capacities to increase resilience by:
 - developing dynamic farm/agricultural management tools that integrate climate change risks into existing and emerging farm management systems
 - developing, where possible, environmental management systems for the agricultural sector

- identifying and building on successful indigenous knowledge and strategies for adaptation
- Promoting the inclusion of adaptation and mitigation strategies in the curricula of all training institutions and extension training mechanisms for farmers and other producers e.g. farmer field schools
- Reducing the impact of climate change on food production, incomes and livelihoods by:
 - Adopting an Integrated climate change management approach
 - Developing and adapting sustainable land and water management practices to mitigate and adapt to climate change
 - Retraining and retooling farmers in appropriate production practices (e.g. conservation farming, zero tillage etc.) to adapt to the changing environment
 - Developing sustainable land, water, forest and fishery management systems *inter alia* to address shortages and excessive rainfall and protect the natural resource base in the face of climate change
 - Zoning of agricultural production as necessary to reduce vulnerability
 - Developing and implementing a national cropping plan, taking into consideration prevailing weather hazards, in order to reduce overall production risks
 - Promoting cost-effective alternatives to fossil fuels that improve energy efficiency in agriculture
 - Integrating climate adaptation into agricultural adjustment programmes through a risk management approach
 - Supporting and funding increased water use efficiency across irrigated agriculture
 - Investing in new or existing water management and control infrastructure
 - Supporting the improvements in national monitoring and forecasting systems for weather and natural phenomena and endorsing the development of a regional monitoring and forecasting system for the same

- Facilitating continuous training of stakeholders in preparedness and mitigation strategies
- Strengthening capacity at the local/community level to adapt to the changing climate
- Conducting public education campaign using a multiplicity of media forms to raise awareness of climate change and its implications for livelihoods to effect behavioural change
- Introducing systems of governance to empower communities to adapt to climate change
- Developing and implementing a communication plan to disseminate accurate and timely climate and weather information to the farming/fishing community
- Improving the systems for the collection of agro-meteorological data (for key climate variables such as rainfall, river flow/levels, temperature, sea level rise and the incidence of extreme weather events (e.g. hurricane, flood, drought) at the national and parish levels
- Improving harmonization and better coordination in the collection and collation of information *inter alia* on markets, production-type and level, income sources and reliability, policies affecting trade and distribution of food products, baseline information on food availability, access, utilization, population numbers and distribution, infrastructure, rainfall information, crop and livestock diseases, monthly state of crops in the fields, and security conditions - such as the extent of praedial larceny, etc.
- Constructing resilience indicators and developing comprehensive risk profiles for the main economic and food crops
- Developing comprehensive agricultural insurance and risk transfer schemes

6 INSTITUTIONAL FRAMEWORK

6.1 Overview

Effective leadership and good governance are essential elements for effectiveness and efficiency in the implementation of the Antigua and Barbuda Food and Nutrition Security Policy. Leadership must be exercised, and building political awareness of the benefits of a food and nutrition secured nation as well as of the deleterious effects of malnutrition on

human welfare and on economic development efforts at the national level are critical. The message that poverty is an intrinsic component of food and nutrition insecurity must be disseminated widely.

It is important that the profile of food and nutrition security be raised. In fact, a key element of an advocacy effort will be raising the general level of knowledge among the population at large of the importance of good nutrition so that malnutrition becomes a political issue for which political leaders, the government, and individual sectors of government are held accountable by the general public.

The Food and Nutrition Security Policy implementation process must incorporate good governance practices or Right to Food principles, including issues related to participation, accountability, non-discrimination, transparency, full respect for human dignity, empowerment, rule of law, and inclusion and considerations of equity.

The empowerment of duty-bearers and rights-holders must become an essential component of the policy implementation process. Duty-bearers must be assisted to recognise their responsibilities and have sufficient capacity to fulfil them, while rights-holders must be assisted to recognise their rights and engage in the policy process to argue for their fulfilment. Capacity and knowledge must be built among local government leaders and officers so that they are able to carry out their duties effectively in order to ensure that the right-to-food of all individuals is respected with human dignity. Ultimately, food and nutrition security needs to be attained by households and individuals where they live. The devolution of action under this policy to local governments is therefore essential.

6.2 Current Institutional Framework

The mandates and functions of several existing institutions cover some of the activity programmes assigned priority by the Government of Antigua and Barbuda for implementation of its Food and Nutrition Security Policy. These are:

- **The Ministry of Agriculture, Lands, Housing and the Environment** – Principally responsible for the implementation of the Government’s policy and strategy for the agricultural sector to increase production and productivity in agriculture, fisheries and forestry. It also ensures the welfare of producers, and promotes the sustainable management of lands and the environment.
- **The Ministry of Health, Social Transformation and Consumer Affairs** – Principally responsible for facilitating the attainment of optimal health by providing medical and health services. It implements policies, programmes and projects to ensure a healthy population through its public health, nutrition, maternal and child health programmes. The Ministry’s portfolio also covers social policy, citizens’ welfare, community development, disaster management (National Office of Disaster Services – NODS), and substance abuse and prevention. It also implements programmes to improve social welfare, especially among vulnerable groups.

- **The Ministry of Education, Sports, Youth and Gender Affairs** has responsibility for life-long learning and the education of all citizens through creative problem solving and critical thinking in preparation work. It implements the School Meals programme in primary and secondary schools, thus ensuring access to food for children and adolescents.
- **Ministry of National Security and Labour** has responsibility for the ***conducting of labour surveys as well as for the analysis of labour market information. It, therefore, facilitates employment for the more vulnerable segments of the society. It is also responsible for public order and safety.
- **Ministry of Finance, the Economy and Public Administration** has, within its portfolio, responsibility for Industry and Commerce and Trade and Economic Development. Within this context, it provides policy and programme support for agro-industry (in collaboration with the Ministry of Agriculture) and distributive trades sector. This Ministry also oversees efforts for job creation, export promotion and investment facilitation.

The matrix presented in Table 6.1 below shows the responsibility of each ministry in respect of the four pillars of food and nutrition security.

Table 6.1: Institutional Framework for Food and Nutrition Security

Ministry	Food Availability	Food Access	Food Utilization	Food Stability
Ministry of Agriculture, Lands, Housing and the Environment				
Ministry of Health, Social Transformation, and Consumer Affairs				
Ministry of Education, Gender, Sports and Youth Affairs				
Ministry of National Security and Labour				
Ministry of Finance, the Economy and Public Administration				

It should be noted that there is at present no entity or body responsible for coordinating food and nutrition security policies and programmes as these issues are normally considered to be the responsibility of the agricultural ministry due to the lack of awareness of the multi-sector and inter-disciplinary nature of the issue.

The Ministry of Agriculture is seen as being responsible for food security which is often equated to production/availability while the Ministry of Health is viewed as being responsible for nutrition. It is important to emphasize that Food and Nutrition Security is more than Availability and Utilization. The Antigua and Barbuda Food and Nutrition Security Policy will facilitate the paradigm shift towards a more integrated approach, by all stakeholders, towards implementation - bearing in mind the inter-related and inter-dependent nature of the entire process.

6.3 Proposed Institutional Framework

6.3.1 Overview

The issues to be addressed by the Antigua and Barbuda Food and Nutrition Security Policy have ramifications which transcend the agricultural and rural sectors and cut across the existing division of functions and responsibilities of the various ministries and agencies of the public sector as currently structured. A number of national efforts (policies, programmes and projects) have been developed through a participatory process to promote food and nutrition security and a fairly favourable policy framework for growth of agriculture and allied services in the areas of food processing, preparation and distribution are in place. Existing and emerging international and regional responses seek to promote and reinforce integration, coherence and consistency of national level efforts. The drive for greater policy and implementation coherence is also evident in the efforts of donor coordination through the Paris Declaration and the Accra Agenda for Action.

The role of the private sector, civil society, and educational, research and development organization should not be underestimated. Working together, these stakeholders can contribute more effectively towards eliminating chronic hunger, food insecurity and malnutrition and preventing future food security crises from occurring.

The attainment of food and nutrition security entails actions in areas that fall within the purview of diverse ministries and institutions in the public and private sectors. The diversity in the scope and nature of the issues to be addressed underscores the need for a holistic, multi-disciplinary, uniformed and coordinated approach for their resolution.

It is evident, that in order to make a significant assault on poverty, hunger and malnutrition, within the context of a Food and Nutrition Security Agenda, there is need for an institutional entity/mechanism vested with statutory powers to direct actions effectively on these issues across sectors. Such an entity must be given responsibility for coordinating and overseeing necessary actions against malnutrition at the level of the relevant sectors. It should also engage in the budgeting and planning processes that guide

the allocation of the resources required to the various technical sectors concerned, while holding those sectors accountable for the use of their resources.

The national entity's principal role lies in ensuring that the sectors responsible for food production, importation, distribution, trading, and food crisis management fulfil adequately their mandated tasks that contribute to food security. Similarly, it will ensure effective joint action by the health, education, and water and sanitation sectors, in particular, towards the attainment of optimal nutritional status for all citizens.

6.3.2 Coordination and Implementation of the National Food and Nutrition Security Policy

6.3.2.1 National Council on Food and Nutrition Security

In light of the cross cutting nature of food and nutrition security, its importance in national affairs and the need to coordinate the budget allocations, activities and expenditures of several ministries as well as public and private entities, it is recommended that the implementation of the food and nutrition security policy be placed under the chairmanship of the Office of the Prime Minister. In the initial stages, the coordinating mechanism may take the form of a multi-sector inter-ministerial committee comprising the relevant agencies, civil society and the private sector, with the transformation of this body into a National Food and Nutrition Security Council/Commission (NFNSC) as a medium term goal.

In light of these considerations, the joint and concerted actions of this Inter-Ministerial Committee on Food and Nutrition Security will be implemented under the Food and Nutrition Security Policy, with the following **Terms of Reference**:

- **Provide Policy Advice**
 - a. Recommend policies, strategies, programmes and projects to address the identified issues and problems in food and nutrition that are compatible with the national strategic development plan.
 - b. Formulate policy measures (fiscal, trade, tariff, educational, quality assurance, market location and management etc.).
 - c. Prepare legislation to be submitted to the Attorney General for approval (including the amendment of existing laws and regulations) and the proposal and implementation of changes in the institutional/administrative framework, processes and procedures of the relevant departments and agencies of Antigua and Barbuda that may be required for the achievement of food and nutrition security as well as the revitalization of agriculture at all stages of the value chain, with continuous reviews and modifications as necessary.

- **Inter-sectoral Coordination and Institutional Capacity Strengthening**
 - a. Continue and promote inter-sectoral collaboration in programme planning and implementation among all sectors involved in food, nutrition, and health activities.
 - b. Initiate the development of a national food and nutrition co-ordinating mechanism.
 - c. Co-ordinate resource personnel and mobilize resources (physical and financial) for the advancement of food and nutrition in the State.
 - d. Promote the co-ordination of the implementation of projects and programmes of the various agencies and ministries influencing food and nutrition.
 - e. Identify research and training needs and make recommendations for satisfying such needs (human, material and financial) that may be needed by the various ministries and other agencies.

- **Food and Nutrition Security Planning**
 - a. Develop national food and nutrition plans and act as the advisory body on the interface of food and nutrition.
 - b. Develop a National Plan of Action to implement the National Policy.

- **Awareness Raising, Education and Advocacy**
 - a. Increase the awareness among decision-makers of the importance of the integrated relationship between food, nutrition and health and the vital need for integrating food and nutrition into development planning.
 - b. Advocate for the implementation of corrective measures to improve the nutrition and health status of vulnerable groups, and for the maintenance of adequate food and nutrition surveillance.
 - c. Make representation to Cabinet for additional financial assistance that may be needed from time to time, and for the issuance of special orders, regulations or proclamations.
 - d. Consult and communicate with the national community on the issues involved.

- e. Create understanding of food and nutrition security issues among all relevant stakeholders and the general public through appropriate social communications strategies, such as focus group discussions.

- **Food and Nutrition Security Monitoring**

- a. Access all necessary information regarding the planning and implementation of projects relevant to food and nutrition.
- b. Collate and disseminate data for effective decision making in food and nutrition security.
- c. Monitor the implementation of projects and programmes and re-define policies and strategies.
- d. Ensure that all its policies, as approved and promulgated by Cabinet, are carried out by the relevant departments of the country's implementing and regulatory agencies and stakeholders.
- e. Report to Cabinet every six months.

Composition of the National Food and Nutrition Security Committee/Council:

Core membership of the Antigua and Barbuda National Food and Nutrition Security Committee (NFNSC) would comprise of representatives from the following government ministries and departments and the private sector at the level of a director:

- (1) The Ministry of Health, Social Transformation and Consumer Affairs (including the Chief Nutrition Officer, Chief Medical Officer, Heads- of Health Information Division, Social Policy Unit, NODS)
- (2) The Ministry of Agriculture, Lands, Housing and the Environment (including the Director and the Deputy - Director of Agriculture)
- (3) The Ministry of Education, Gender, Sports and Youth Affairs (including Education Officers – Early Childhood, Physical Education and Home Economics, and School Meals)
- (4) The Ministry of Finance, the Economy and Public Administration - Department of Planning (including Research Officer); and the Departments of Trade and Economic Development and Industry and Commerce
- (5) Barbuda Council
- (6) Central Marketing Corporation (CMC)

- (7) Antigua and Barbuda Chamber of Commerce
- (8) Antigua and Barbuda Investment Authority
- (9) Antigua and Barbuda Fishermen Cooperatives
- (10) Antigua and Barbuda Agro-Processors Association
- (11) Antigua and Barbuda Agricultural Cooperative Society

Individual NFNSC members will have the responsibility of keeping their permanent secretaries and staff in their respective ministries fully informed of NFNSC decisions and activities.

Besides the core membership of the NFNSC, there will also be advisory membership on the NFNSC which will comprise representatives from:

- (1) The Antigua and Barbuda Bureau of Standards
- (2) The Attorney General, Ministry of Legal Affairs
- (3) The Ministry of Public Works and Transport
- (4) The Plant Protection Unit
- (5) The Veterinary and Livestock Division
- (6) The Central Board of Health
- (7) The Gilbert Agriculture and Rural Development (GARD) Centre

The advisory membership will have observer status and will be consulted on technical issues related to policy implementation

6.3.2.2 Implementation Unit

A National Policy Management Unit (NPMU) will be established within the Office of the Prime Minister and funded by the national government and donors. It will comprise of a Policy Coordinator and an Administrative Officer with support staff as needed for the national activities. This Unit will exercise executive responsibility for the day-to-day operation of the project and report to the National Food and Nutrition Security Council to include:

- **Public advocacy and awareness campaign** to all Ministries (Officials and Ministers), relevant institutions and general public
- **Coordination, management and facilitation** through the relevant Ministries and related institutions, key associated institutions, and key stakeholders from the private sector
- Accessing and facilitating technical support
- Facilitating capacity building
- Monitoring and Evaluation
- Dissemination of information
- Resource mobilization

The tasks of the NPMU will include:

- Ensuring compliance with agreed work plans,
- Maintaining linkages with national/regional institutions and other partners to ensure synergy with other programme
- Facilitating the obtaining of information/data required to meet policy needs
- Assisting with the administrative management and support for all project components
- Planning and organizing national training activities
- Participation in national and regional activities
- Procurement of services (consultants, experts)
- Maintaining financial records of national programme activities

6.3.2.3 Communications

Success in the implementation of the National Food and Nutrition Security Policy will require the creation and maintenance of a clear understanding by all stakeholders of the goals established and the ways and means by which they are to be achieved. An effective communication and public information programme (CPIP) is required to create the widest possible public awareness of what the National Policy intends to achieve and on strategies and activities which will be used to realise the identified goals. Special efforts should be made to reach out to grass root levels and those who are suffering hunger or are food insecure and/or malnourished.

The CPIP should also serve to keep all stakeholders continuously informed about progress in the Policy implementation and its effects and impact. This is an important instrument for holding those responsible for implementation accountable, while it provides transparency for the decisions that are made based on the periodic review of progress. Social communication and monitoring and evaluation should go hand-in-hand, with the latter providing information for the former.

