

Food and Nutrition Security Strategy for Guyana

GOVERNMENT OF GUYANA

Ministry of Agriculture



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FOREWORD

The spike in global hunger, following the 2007-08 food price crisis and the 2009 economic downturn, catalyzed efforts to re-examine food security interventions. This process was fostered by global initiatives to fight hunger more effectively. The G8 Summit in L'Aquila, the reform of the Committee on World Food Security and the World Summit on Food Security (all in 2009) strengthened the move towards comprehensive approaches to food security.

At close to one billion, the number of undernourished people in the world remains unacceptably high in 2010 despite an expected decline--the first in 15 years. This decline is largely attributable to a more favourable economic environment in 2010--particularly in developing countries--and the fall in both international and domestic food prices since 2008. The recent increase in food prices, if it persists, will create additional obstacles in the fight to further reduce hunger.

The FAO estimates that a total of 925 million people are undernourished in 2010 compared with 1.023 billion in 2009. That is higher than before the food and economic crises of 2008-2009 and higher than the level that existed when world leaders agreed to reduce the number of hungry by one half at the World Food Summit in 1996. Most of the world's hungry live in developing countries, where they account for 16 percent of the population. While this figure marks an improvement compared to 2009, it is still well above the target set by the Millennium Development Goal (MDG) 1 of halving the proportion of undernourished people in developing countries from 20 percent in 1990-92 to 10 percent in 2015.

The latest available statistics indicate that some progress has been made towards achieving MDG 1, with the prevalence of hunger declining from 20 percent undernourished in 1990-92 to 16 percent in 2010. However, with the world's population still increasing (albeit more slowly than in recent decades), a declining proportion of people who are hungry can mask an increase in the number. In fact, developing countries as a group have seen an overall setback in terms of the number of hungry people (from 827 million in 1990-92 to 906 million in 2010).

As of 2005-07 (the most recent period for which complete data are available), the Congo, Ghana, Mali and Nigeria had already achieved MDG 1 in sub-Saharan Africa, and Ethiopia and others were close to

doing so. In Asia, Armenia, Myanmar and Viet Nam had achieved the target reduction and others, including China, were coming close. In Latin America and the Caribbean, Guyana, Jamaica and Nicaragua had succeeded in reducing the prevalence of hunger by one half and Brazil, among others, was approaching this objective.

The fact that nearly a billion people remain hungry, even after the recent food and financial crises have largely passed, indicates a deep structural problem that gravely threatens the ability to achieve internationally-agreed goals on hunger reduction. In order to tackle the root causes of hunger, the Government of Guyana is continuously increasing investment in agriculture, expanding safety nets and social assistance programmes, and enhancing income-generating activities for the rural and urban poor. For the poor, agricultural production is both a source of food and a source of income, and climate change impacts the four key dimensions of food security--availability, stability, access, and utilization. Thus, agriculture is both part of the problem and part of the solution in the climate change issue. Therefore, a policy of climate-smart agriculture is adapting to significant impacts of climate change, while at the same time providing food for a growing population. Meeting climate change, food security and trade commitments presents both challenges and opportunities for the agri-food sector. Agriculture is one of the few sectors that can both contribute to mitigation and sequestration of carbon emissions, and accounting for agriculture's carbon footprint is necessary, particularly if agriculture is included in greenhouse gas reduction commitments.

The Government of Guyana policy commitment will play an important role in maintaining a viable agriculture economy in the face of climate change. Reforms of agricultural policies--in particular the shift to decoupling--have reduced specific commodity-related production distortions. Future reforms will better target specific environmental outcomes, such as encouraging production techniques that minimize Greenhouse Gas emissions.

Mitigation and adaptation approaches are being strengthened. These are likely to be more effective if they are embedded in longer-term strategies linked to agricultural policy reform, risk management, research and development, and market-based approaches.

The Low Carbon Development Strategy presents various opportunities and challenges for Guyana's agriculture sector such as investing in strategic economic infrastructure (drainage, irrigation, road

construction, and off-grid power). This would improve access and provide infrastructure for agro-industrial investment in currently unused, non-forested land. Such improvements would also facilitate investment in high-potential low-carbon sectors such as fruits, vegetables, aquaculture and bio-ethanol production, and sustainably managing the forestry sectors, so creating opportunities for investment and development by the indigenous population in areas such as cattle rearing and value-added production.

The Ministry of Agriculture has undertaken many initiatives to ensure that Guyana is on a sustainable path of being food secure. These include the Grown More Food Campaign, the Agriculture Export Diversification Programme and the Rural Enterprise Agricultural Development.

The implementation of a successful Food and Nutrition Security Strategy for Guyana will impact every element of the local economy. Ensuring that the country is food-secure will make possible the achievement of national and international development goals. This strategy will be integrated into current and future policy documents for Guyana, ensuring that we continuously allow for a sustainably growing and developing economy.

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ACRONYMS AND ABBREVIATIONS

CARICOM	Caribbean Community
CARTF	CARIFORUM Agricultural Research and Training Programme
CFNI	Caribbean Food and Nutrition Institute
CFNSF	Community Food and Nutrition Security Forums
CRFM	Caribbean Regional Fisheries Mechanism
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FBDG	Food Based Dietary Guidelines
FNS	Food and Nutrition Security
FPD	Food Policy Department
GAFDD	Government Analyst Food and Drug Department
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GLDA	Guyana Livestock Development Authority
GNBS	Guyana National Bureau of Standards
GSA	Guyana School of Agriculture
GTIS	Guyana Trade and Investment Support Project
IFAD	International Fund for Agricultural Development (IFAD)
IICA	Inter-American Institute for Cooperation on Agriculture
MOA	Ministry of Agriculture
MOAA	Ministry of Amerindian Affairs
MOE	Ministry of Education
MOF	Ministry of Finance
MOFA	Ministry of Foreign Affairs
MOH	Ministry of Health
MOHSSS	Minister of Human Services and Social Security
MOL	Ministry of Labour
MOLA	Ministry of Legal Affairs
MOLG	Ministry of Local Government
NAREI	National Agriculture Research and Extension Institute

NCD	Non-Communicable Diseases
NFSF	National Food and Nutrition Security Forum
NGMC	New Guyana Marketing Corporation
NTCU	National Technical Coordinating Unit
OCC	Office of Climate Change
PAHO/WHO	Pan American Health Organization/ World Health Organization
PTCCB	Pesticides and Toxic Chemicals Control Board
READ	Rural Enterprise and Agricultural Development
SBB	Small Business Bureau
SILWT	Sugar Industry Labour and Welfare Fund
SMEs	Small and Medium-scale Enterprises
TWG	Technical Working Group
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
VPHU	Veterinary Public Health Unit
WB	World Bank
WFS	World Food Summit

EXECUTIVE SUMMARY

The Guyana Food and Nutrition Security Strategy is a plan of action directed at improving the food situation of the country and its people, especially for the target populations facing any given levels of food insecurity. Despite being a net exporter of food, Guyana still faces some elements of food and nutrition insecurity, especially given that the definition of food security is not limited to the availability of food, but also includes access to food and quality of nutrition. In Guyana, the food security challenge involves creating income-earning opportunities and making enough safe and nutritious food available for all residents. Rising food prices, increased weather variability and the global economic crisis have, in recent years, made the goal of enhancing food security in Guyana even more challenging.

The overall goal of this Food and Nutrition Security Strategy is *to improve the health and well-being of all persons living in Guyana through enhanced food and nutrition security*. In the development and implementation of policies and programmes to achieve this overall goal, measures and actions will be taken that will impact the entire population. However, specific focus will be given to the sections of the population that live in poverty and that are considered vulnerable to food and nutrition insecurity. This strategy has three defining goals that will allow for the overall objective to be achieved:

1. **To facilitate sustainable and stable employment-generating opportunities that would increase availability of and accessibility to food, especially among vulnerable groups.**
 - To enhance the production and availability of quality non-traditional agricultural commodities for domestic consumption and export markets.
 - To facilitate the marketing (storage and distribution) of quality and safe food for domestic consumption and exports.
 - To enhance employment opportunities and access to food among non-agricultural vulnerable groups.
 - To reduce rural and urban poverty.
 - To reduce the vulnerability/ risk to natural disasters--in particular, coastal flooding.

2. **To promote systems (information, education and communication/dissemination) for use and consumption of healthy foods for increased nutrition of all Guyanese and especially vulnerable groups**
 - To assure food safety and quality control through the introduction of appropriate institutional and legislative framework

- To promote hygienic and safe food practices by food processors, food handlers and consumers
- To improve dietary and nutritional practices at the household level (including proper dietary maternal and child care practices)

3. Promote increased institutional coordination and functioning for improved food and nutrition security.

- To establish effective mechanisms to facilitate inter-sectoral dialogue on critical issues impacting food and nutrition security.
- To expand the knowledge base of food security concepts and issues at senior public sector and relevant civic organization and non-governmental organizations levels
- To establish effective coordinating of programmes and monitoring mechanisms

Two typical approaches characterise the design of these food security strategies: (a) integrating of food security policy issues into the overall national and sectoral development policies and strategies of the country or (b) preparing a specific “Food Security Strategy” document, incorporating all aspects which are relevant for improving food security and taking into account the linkages which exist to national and sectoral development policies and strategies of the country. It is the latter approach that is adopted here. Both are considered equally acceptable and the approach adopted is determined by the institutions and needs of the country.

Analytical Framework

As defined by the 1996 World Food Summit, food security “...exists when **all people, 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.**” (WFS, 1996 para. 1). This definition integrates four critical characteristics - **access to food**, **availability of food**, the **biological utilisation of food** and the **stability** of the first three dimensions.

The above four defining aspects of food security are interrelated in this national strategy for Guyana. For example, low levels of agricultural production limit not only food availability, but also agricultural income, thus constraining access of farm households to sufficient food and making them vulnerable to temporary food shortages. Thus, policies to promote agricultural production have positive effects not only on food production and supplies, but also on access and stability. Further, a well-stocked market means very little to those who do not earn sufficient income to purchase adequate food supplies or are not healthy enough to efficiently utilize the food they consume. Consequently, developing policies and

interventions to increase food security requires an understanding of availability (production), accessibility (income), utilization (nutrition) and stability (natural or economic shocks). Each of these factors, their inter-relationships and their relevance to particular groups of people and the population as a whole is comprehensively understood and addressed in this national food and nutrition security strategy.

It is with these dimensions and interrelationships in mind that the proposed Food and Nutrition Security strategy for Guyana recommends programmes and measures that will have an impact not only on the poor and vulnerable, but also other segments of the population that may experience temporary food insecurity or who may be suffering the effects of poor food choices and unhealthy eating practices.

Mandate

In 2008, in response to a Parliamentary directive for a comprehensive national response to the food security crisis that was potentially facing Guyana, a Special Select Committee was appointed by Cabinet with the Minister of Agriculture as the Chairperson. The Committee was mandated to define a holistic strategy that would address the issues of food security and provide a coordinating framework that would ensure the implementation of initiatives designed to address the identified concerns.

As a member country of the United Nations, Guyana is committed to the realization of the World Food Summit (1996) and Millennium Development Goals (2000), including those related to food security and nutrition. At the 127th Session of the FAO Council in November 2004, member countries of FAO adopted the Voluntary Guidelines to support the progressive realization of the right to adequate food in the context of their national food security.

The preparation of the Food and Nutrition Security Strategic Plan for Guyana should be regarded as the continuation of several initiatives undertaken by the Guyana Government, especially from 2000 to the present. These efforts have included national campaigns such as the Grow More Food, projects such as the IDB-funded Agriculture Export Diversification Project, the IFAD-funded Rural Enterprise and strategies such as the Low Carbon Development Strategy. The FAO/CARICOM/CARIFORUM Food Security Project funded by the Italian Government since 2004 included a number of activities directly related to the preparation of the current Food and Nutrition Security strategy, such as a Food and Nutrition Assessment study completed for Guyana (2008).

STRATEGIC APPROACH TO ACHIEVING FOOD AND NUTRITION SECURITY IN GUYANA

Guyana's food insecurity challenge tends to be related more to issues of accessibility (employment opportunities), utilization of food (nutrition related to health education, food preparation, food quality and safety) and stability (natural and economic shocks on the food supply systems) than it is to availability of food (production based shortages).

The overall goal of the proposed Food and Nutrition Security Strategy is *to improve the health and well-being of all persons living in Guyana through enhanced food and nutrition security*. In the development and implementation of policies and programmes to achieve this overall goal, measures will be taken that will impact the entire population. However, specific focus will be given to the section of the population that lives in poverty and is therefore considered vulnerable to food and nutrition insecurity.

Goal 1:

To facilitate sustainable and stable employment-generating opportunities that would increase availability of and accessibility to food, especially among vulnerable groups.

This goal will systematically seek to reduce the current levels of poverty of the rural population in Guyana while identifying market opportunities and promoting the development of economically viable agricultural and non-agricultural enterprises. Importantly, it recognizes the need to provide technical assistance and training in areas related to basic life skills, literacy, skills training for employment, and building cohesive households and communities. Natural disasters and changing climate also need to be addressed as they have affected and continuously threaten the stability of food supplies and accessibility by the population, and are in their own right a major cause of food insecurity.

Objectives

- ❖ To enhance the production and availability of quality non-traditional agricultural commodities for domestic consumption and export markets.
- ❖ To facilitate the marketing (storage and distribution) of quality and safe food for domestic consumption and exports;

- ❖ To enhance employment opportunities and access to food among non-agricultural vulnerable groups;
- ❖ To reduce rural and urban poverty;
- ❖ To reduce the vulnerability/ risk to natural disasters, in particular coastal flooding.

Strategic Interventions

These objectives will be achieved by a number of programmes and activities aimed at

- Increasing the capacity of farmers to efficiently and effectively produce non-traditional commodities;
- Promoting appropriate post-harvest, storage, transport and distribution practices and encouraging the development of value-added production;
- Increasing the availability of quality market information to stakeholders (farmers, exporters, agro-processors, agri-business investors, policy makers) and facilitating the establishment and sustainability of market linkages;
- Developing, implementing and promoting the economic developmental opportunities in rural /hinterland regions: for example, forest based products, organic products, and a fisheries export base;
- Enabling food-insecure and vulnerable groups to adjust to effects of natural disasters and other 'shocks'.

Goal 2:

To promote Information, Education and Communication / Dissemination systems for use and consumption of healthy foods for improved nutrition of all Guyanese and especially of vulnerable groups

Food and nutrition insecurity has a debilitating effect on the nutritional status and general well-being of a population. In the short-term it increases micro-nutrient deficiencies, wasting and stunting among children. In the long term it creates poverty traps, and increases infant mortality, low birth weight, and maternal mortality. Contributing factors to this situation are lack of education on food choices and food preparation methods; limited access to nutritious foods at affordable prices; inadequate food safety standards, resulting in low quality foods being offered on the market; time related demands that lead to

increases in consumption of processed foods consumed at home, and the proportion of meals consumed away from home.

Objectives

- ❖ To assure food safety and quality control through the introduction of appropriate institutional and legislative framework;
- ❖ To promote hygienic and safe food practices and by food processors, food handlers and consumers;
- ❖ To improve dietary and nutritional practices at the household level (including proper dietary maternal and child care practices).

Strategic Interventions

These objectives will be achieved by a number of programmes and activities:

- Reviewing and harmonizing food safety and putting in place an institutional regulatory body for quality control;
- Ensuring that food made available to consumers is safe and wholesome;
- Conducting food safety public awareness campaigns;
- Supporting the development and dissemination of Information, education and communication material on appropriate diets and lifestyles;
- Reducing the incidence and prevalence of diet-related non-communicable diseases (NCDs) and enhancing their control and management;
- Developing mass media campaigns to promote proper nutrition and exercise throughout the life cycle;
- Improving the nutritional status of school children;
- Strengthening the provision of nutrition education and counselling.

Goal 3:

Promote increased institutional coordination and functioning for improved food and nutrition security.

An effective and efficiently working institutional framework is essential to the achievement of food and nutrition security. Promoting food security requires complementary interventions in different sectors (agriculture, health, trade and education) and at different levels (household, community, national,

regional), with different temporal dimensions. Different circumstances require different actions, and involve a wide cross section of actors. Thus, clear goals, guidelines, legislation, cooperation agreements and institutional arrangements are essential to delivering on commitments related to food and nutrition security.

Objectives

- ❖ To establish effective mechanisms to facilitate inter-sectoral dialogue on critical issues impacting food and nutrition security;
- ❖ To increase the knowledge base of food security concepts and issues at all levels, including public sector and relevant civic organization and non-governmental organizations levels;
- ❖ To establish effective coordinating of programmes and monitoring mechanisms.

Strategic Interventions

- Expansion and strengthening of the responsibilities of the Parliamentary Sectoral Committee on High Food Prices, including in its mandate implementation of the food security and nutrition strategy.
- Establishment of the Technical Working Group to serve the expanded Parliamentary sectoral committee;
- Establishment of an ongoing consultation system for wide participation of all stakeholders in informing the work of the parliamentary sectoral committee, especially among national, regional, local governments to support of food security goals.
- Training in food security concepts and processes at all public, private sector and community levels, emphasising the issues relevant to their interests.
- Establishment of effective coordination of programmes and monitoring mechanisms including a system of collection, analysis and reporting on Food and Nutrition (FNS) indicators.
- Establishment of linkages with institutions of higher learning to implement food and nutrition security evaluations to inform the work of the parliamentary sectoral committee.

The proposed institutional structure is based on guidelines of inclusivity and integration of programmes to emphasize synergies and improve results. The structure provides for participation by a wide range of stakeholders, whose activities are integrated to include and accommodate the delivery line mandate,

programme coordination and implementation of actions. The structure also includes various levels of government (national, regional, local).

At the highest level of the structure is the Inter-Ministerial Parliamentary Sectoral Committee. It is anticipated that this will be composed of a social and an economic cluster given the nature of the food security situation. The Minister of Agriculture will chair the Inter-Ministerial Parliamentary Sectoral Committee. The role of the Inter-Ministerial Parliamentary Sectoral Committee is to coordinate and ensure the implementation of the Food and Nutrition Security Strategy. This Committee will report to the President and to Parliament about food security progress, and serve as the link to the technical governmental and non-governmental leaders for implementation of plans and programmes.

Stakeholders from the public sector, private sector, civil society and the donor community will constitute a National Food and Nutrition Security Forum (NFSF). The forum will provide strategic information and assistance on both policy and programme dimensions of achieving food and nutrition security.

A National Technical Coordinating Unit (NTCU) will be responsible for coordination and promoting implementation of the Food and Nutrition Security Strategy across the public and private sectors in Guyana.

Regional and Community Food and Nutrition Security Forums (CFNSF) will be constituted by stakeholders from government, private sector, civil society and the donor community at each of the ten administrative regions of Guyana.

GUYANA FOOD AND NUTRITION SECURITY STRATEGY

Introduction

A food and nutrition security strategy is a feasible/workable plan that is directed at improving the food situation of a country and its people, especially for the target populations facing food insecurity. It thus contributes to the achievement of the first Millennium Development Goal (Eradicated poverty and hunger) and the realization of the basic human right to food.

Two typical approaches characterise the design of food security strategies: – (a) integrating of food security policy issues into overall national development policies and strategies of a country or (b) preparing a specific “Food Security Strategy” document, incorporating all aspects which are relevant for improving food security, and taking into account the linkages which exist to overall and sectoral development policies and strategies of the country. It is the latter approach that is adopted here. Both are considered equally acceptable and the approach adopted was determined by the institutions and needs of the country.

Analytical Framework

As defined by the 1996 World Food Summit, food security “...exists when **all people, 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.**” (WFS, 1996 para. 1). This definition integrates four critical characteristics - **access to food**, **availability of food** and the **biological utilisation of food** and the **stability** of the first three dimensions.

The above four defining aspects of food security are interrelated. For example, low levels of agricultural production not only limit food availability but also agricultural income, thus constraining access of farm households to sufficient food and making them vulnerable to temporary food shortages. Thus, policies to promote agricultural production have positive effects not only on food production and supplies but also on access and stability. However, earning income to purchase food (access) matters less if insufficient food is available in markets. Yet, a well-stocked market means very little to those who do not earn sufficient to purchase food or are not healthy to utilize the food they consume efficiently. Consequently, developing policies and interventions to increase food security requires an understanding

of each of these factors, their inter-relations and their relevance to particular groups of people and the population as a whole.

It is with these dimensions and interrelationships in mind that the proposed Food and Nutrition Security strategy for Guyana will recommend programmes and measures that will have an impact not only on the poor and vulnerable but also on other segments of the population that may experience temporary food insecurity or who may be suffering the effects of poor food choices and unhealthy eating practices.

The “at all times” aspect of the food security definition refers to the stability of the other three food security factors over time. This can be understood through the concept of vulnerability. In the food insecurity context, vulnerability refers to the propensity to fall (due to crises related to, for example, natural disasters and/or high food prices), or stay, below a pre-determined food security threshold in the future.

Increasing concern has been expressed by regional politicians and decision makers regarding the growing food-import dependency in the region and its impact on food prices and the cost of living. In an era marked by the increased occurrence of political conflicts with global implications, natural disasters, and other factors that can temporarily disrupt trade flows, anxiety regarding the availability of food within the region has increased. The need to ensure food security and even food sovereignty has been vehemently urged by many of the leaders in the region.

In 2008, in response to a Parliamentary directive for a comprehensive national strategy to deal with the food security crisis facing Guyana, a Special Select Committee was appointed with the Minister of Agriculture as the Chairperson. The Committee was directed that the national response must address the following identified areas of concern:

- ❖ Address the issue of food production, consumption and storage;
- ❖ Provide coherence and coordination to the work of the many Ministries, State Agencies, NGOs and Private sector that are involved in food and nutrition security related issues;
- ❖ Ensure sustainability of initiatives designed to address the identified concerns.

In relation to its mandate, the Committee led the preparation of a Food and Nutrition Security Ten Year Strategic Plan. The Food and Agricultural Organisation of the United Nations (FAO) provided technical

and financial support in the development of the framework and action plan to prepare a Food and Nutrition Security Strategy for Guyana.

The preparation of the Food and Nutrition Security Strategic Plan for Guyana should be regarded as the continuation of several initiatives undertaken by the Guyana Government, especially from 2000 to the present. These efforts have included national campaigns such as Grow More Food; projects such as the IFAD funded Rural Enterprise and Agricultural Development Project, and strategies such as the Low Carbon Development Strategy. The FAO/CARICOM/CARIFORUM Food Security Project funded by the Italian Government since 2004 included a number of activities directly related to the preparation of the current Food and Nutrition Security strategy. A three-day national training workshop on Food and Nutrition Security and Vulnerability Analysis was convened over the period March 21 to 23, 2007 as a collaborative effort between the FAO and the Caribbean Food and Nutrition Institute (CFNI). The workshop was aimed at building capacity and producing a cadre of trained persons in the area of food and nutrition security analysis among mid-level government officials in Guyana. Under this project a Food and Nutrition Assessment study was completed for Guyana (2008).

The Assessment combined several qualitative and quantitative methods and processes. The qualitative methods include national consultations, key informant interviews and focus group discussions, and case studies. The quantitative methods include primarily the analyses of secondary data: for example, population census, surveys of living conditions, and surveys of agricultural production. This information was updated, and incorporated in the causes of food and nutrition security presented in Section 3.

Economic Review

The structure and performance of Guyana's economy is critical to the country's achieving food security. The government continues to implement structural reforms to improve its macroeconomic framework and lay the basis for overall sustained growth, including the creation of opportunities for private sector growth and development.

Agriculture is the most important sector of Guyana's economy as it accounts for almost 30 % of GDP, total employment and export earnings. Sugar and rice are the most important crops in terms of area, value of production, employment creation, and contribution to export earnings.

The performance of the traditional agricultural sector--sugar and rice--continues to be essential to welfare in rural Guyana. Its production systems are dominant and characterize life in the five regions where more than 90 % of the rural population lives.

The Government is continuing the process of restructuring and modernization of the sugar sector in order to improve the efficiency of the industry. In particular, efforts are directed at reducing the cost of operations and increasing productivity through the use of improved technologies.

Despite a number of challenges, including the increased cost of inputs and insufficient drainage and irrigation infrastructure, the rice industry has shown significant improvement over the past five or more years. Achievements in research resulted in the release of a high yielding and blast resistant variety, which resulted in improved productivity. Initiatives such as the "Rice-Fish" cultivation project, implemented with the assistance from the Food and Agriculture Organisation (FAO), provided an opportunity for farmers to increase and diversify their income source.

All other production activities are marginal by comparison, including root crops which are most widely grown in all regions, with the possible exception of Region 5, where there is minimal cultivation.

Over the past two decades there have been increasing calls for the diversification of the agricultural sector. The diversification process has been generally guided by the need to identify additional commodities for which Guyana has a competitive advantage, in order to secure overseas markets and earn foreign currency.

The livestock, fishing and forestry industries are important contributors to rural incomes and employment and have expanded over the past decade. The livestock industry contributes about 7% to agricultural GDP, the fishing industry approximately 7% to 9%, and the forestry industry 9% to 14%. Fish is the major source of animal protein in Guyana, estimated at 35.6 kg per capita or more than twice the world average of 14 kilograms per year. Approximately 15,000 jobs depend directly on fisheries, and many more people benefit indirectly from fishing-related occupations, such as boat building, supply and repair.

The strong performance in the mining, engineering and construction and services sectors have made them significant contributors to economic growth in Guyana. The mining sector is highly dominated by a few products, mainly bauxite and gold. Bauxite accounts for nearly 14% of the sector's output and gold accounts for 86%. The mining, forestry and more recently the tourism sectors are critical to food security in some of the most vulnerable parts of the country, namely the hinterland regions where sugar and rice are (historically) not grown. Regions 1, 7, 8, and 9 are the hinterland regions where most mining and tourism operations are located. Mining (primarily gold and bauxite) accounts for on average 15% of GDP. Investments in this sector contribute to the development of the hinterland economy as physical and social infrastructure for communities that spring up around mining camps.

While Guyana continues to be one of the few Caribbean countries that can be considered to be self-sufficient in food production, there are increasing concerns of the growing food import trend, especially in urban and peri-urban areas, and even some rural communities.

Unemployment is intrinsically related to poverty, and remains a grave challenge for Guyana. High unemployment rates (above 10%), together with relatively low national per capita income, continue to put pressure on the purchasing power of the average Guyanese. The relatively slow growth of Guyana's economy is identified as the main reason for the insufficient number of productive and remunerative jobs created, particularly in rural communities.

In the light of the foregoing, the importance of a comprehensive food and nutrition strategy for Guyana cannot be overemphasized. This present Strategy addresses a number of critical issues related to food and nutrition security while simultaneously contributing to agricultural and rural sector economic development and growth of the national economy.

NATIONAL FOOD SECURITY AND VULNERABILITY SITUATION

An assessment of the food security and related vulnerability situation is a critical starting point in developing a food security and nutrition strategy. The incorporation of the concept of vulnerability into food security policy and programmes broadens the scope of intervention to include not only the current but also future threats to food security. While poverty and food insecurity are generally used to describe people's welfare at the present time, vulnerability analysis complements this with a 'forward looking' perspective that is used to predict how the welfare of individuals and households may change. While a formal definition of vulnerability has not been adopted, it generally (and in this document) refers to situations where there exists the inability of some communities or households to cope with contingencies and stresses to which they are exposed. In the context of food security, FAO defines vulnerability as *"the probability of a person or household falling or staying below a minimum food security threshold within a certain time frame"*.

A Food Security Assessment conducted in 2007 and a recently concluded Rural Sector Review (2010) for Guyana both concluded that a significant proportion of Guyana's population is food insecure and vulnerable. This remains the case despite the fact that the rate of poverty in Guyana declined from 43.2% in 1992-1993 to 32% by 2004. Critical poverty declined during this period from about 28% to 19%. When calculated on the basis of households, the available data show that more than one in four households remained in absolute poverty and about one in eight in critical poverty in 1999. Although progress has been made and the poverty rate has fallen, it nevertheless remains high. According to two most recent poverty analyses conducted, poverty in the rural coastal and rural hinterland areas has remained relatively unchanged.

The primary causes of poverty and food insecurity in Guyana remain the same: lack of the material and means for satisfying basic human needs. Thus, there are some sections of the population that are poor and food-insecure because they lack income, resources and food.

Poverty is not evenly distributed throughout the country. The lowest incidence of poverty is found in the urban areas, where it is estimated that less than one sixth of the inhabitants are poor. The highest incidence of poverty is in the rural coastal and interior locations. The high incidence of poverty in the hinterland areas is largely due to their isolation and related logistical problems of access. Despite the

decline in the poverty rate, as many as 78% of the population living in the rural interior area are classified as poor, and 41% as critically poor.

One of the characteristics of poor households is that of a relatively large number of persons living in the one household, the majority being children. This means that poor households are not only large, but each wage earner in a poor household supports a large number of dependent children.

Apart from the fact that the poor have limited access to quality basic requirements, the majority of poor households do not earn enough to pay for a basic “food basket” or to pay for other essential household necessities. Limited income hinders the ability of these households to have access to sufficient, safe and nutritious food. Further, poor households generally do not consume nutritionally balanced meals.

In July 2004 the FAO as part of a FAO/CARICOM/CARIFORUM Food Security Project organised a stakeholders’ consultation to initiate a Food Security Assessment in Guyana. As a result of these discussions a number of food-insecure and vulnerable groups were identified, namely: a) subsistence farmers (coastal, riverain, hinterland); b) small scale miners; c) a such as hucksters and fisher-folk; d) low wage earners- (seasonal or temporary workers, particularly in urban areas); e) loggers; f) cane cutters; g) single parent females; h) Amerindians; i) street children; and j) pensioners.

Further analysis done as part of a Food Security Assessment in 2007 showed that for several of the food-insecure and vulnerable groups (including subsistence farmers, cane cutters small-scale miners, fisher-folk, loggers, and Amerindians), the availability of natural resources (arable land, forest, water) was critical to their livelihood. Furthermore, the degree of vulnerability and food insecurity of these groups was, to a large measure, impacted by the level to which there were able to utilise these resources in the production of consumable and marketable produce.

Agricultural production by the subsistence farmer is severely limited by the lack of appropriate production and marketing infrastructure, the relatively high cost of inputs, limited technical knowledge and the lack of relevant marketing information.

Limited access to critical social services and basic needs also contributes to restricting the ability of food insecure and vulnerable groups from fully utilising available production resources. In a number of

riverain and hinterland communities access to key social and economic services such as education, health, water and sanitation, banking services and marketing and retailing facilities is limited. Inadequate transportation infrastructure generally curtails the ability of these groups to access these services in coastal communities where they may actually be available.

In most of the rural and hinterland communities there is a greater consumption of foods that are not produced in the communities. An estimated 50-60% of disposable income is expended on foodstuff such as flour, rice, sugar, milk powder, canned meat and fish, and beverages. Food prices are generally higher in these communities. There is also an observed shift in the food consumption patterns away from traditional diets based on home produce to more varied energy-dense diets based on purchased processed foods and beverages.

In some rural and hinterland communities there are supplementary feeding programmes which provide milk to children in primary schools. A public health nutrition supplementation programme, “Sprinkles”, is also operational in the some of the communities along with supplementary food fortified with minerals and vitamins.

The analysis contained in the Food Security Assessment (2007) was used to provide a better understanding of the various livelihood systems of the vulnerable groups, including coping mechanisms. Such information is critical in the identification of strategies, programmes and actions that are targeted and effective.

Ongoing Ministry of Agriculture efforts to improve the food security situation

The Ministry of Agriculture’s effort to improve food security has been directed at developing the non-traditional food sector. This is largely a small farming activity, involving some of the poorest farmers. Over the past five years the Government has initiated a number of programmes aimed directly at increasing the productivity, production, and distribution efficiency (storage and marketing) of products coming from small farms.

In 2008, the Ministry initiated the ‘Grow More Food Campaign’ in response to the challenges being experienced as a result of the global increases in prevailing food prices. The ‘Grow More Campaign’ is aimed at ensuring that Guyanese become self-sufficient in food production and manage to produce

excess for export. Some of the key elements of this campaign were seen in the encouragement provided for households to become involved in backyard gardening. To facilitate this, MOA through the New GMC distributes seeds to farmers and to the wider population.

The Rural Enterprise and Development Project (READ) started in 2009 is providing support to farmers in a number of areas. This programme aims to:

- Offer support and assistance to resource poor producers and rural households;
- Improve rural incomes by directing improved production activities, including non-agricultural production enterprises, towards existing marketing opportunities;
- Strengthen linkages between rural producers and service providers involved in the production and diversification efforts;
- To integrate improved technologies in the production and marketing supply chain for agricultural and non-agricultural based enterprises.

In 2009 the Ministry of Agriculture launched the Agricultural Export Diversification Programme (ADP). This programme aims to increase the export potential of a number of products from the non-traditional agricultural sub-sector including aquaculture, fruits and vegetables, and livestock. The programme is made up of four main components:

- Promoting private sector entrepreneurship in agribusiness;
- Improving agribusiness export and facilitation services;
- Strengthening agricultural health and food safety services;
- Rehabilitating drainage and irrigation systems.

In tandem with the programmes above the MOA in 2009 also initiated the implementation of its Agriculture Support Services Project (ASSP) which aims to increase rural incomes by increasing the efficiency of agricultural production. The ASSP has been providing support in the improvement of D&I infrastructure in coastal areas and the establishment of Water Users Associations to assist in the management of the D&I systems. Rice seed research and agricultural diversification is also being promoted as part of the ASSP.

In the hinterland communities the MOA implemented the Rice and Beans Project (US\$0.643M) directly aimed at improving food security. As part of this drive, support has been provided for the production of several acres of land with rice and beans in various Amerindian communities.

In order to increase production and productivity, interventions would be needed to enhance the capacity of producers of targeted and priority crops. These interventions would include improved agronomic practices such as fertilization, crop rotation and shaded cultivation as well as pest and disease management. In recognition of this the Government has initiated the creation of a separate unit called the Crop Development Support Services (CDSS) under NAREI to develop the much needed link between research and extension.

There is also a clear recognition that marketing products to identified markets requires a better understanding of those markets. Accessing markets requires strengthening of the supply side capacity, including effective management of the production and distribution of products. The New GMC has been providing critical support in linking Guyana's producers with markets, both domestic and foreign. There is, however, scope for improvement--particularly in the provision of appropriate market information and the development of marketing infrastructure and equipment through which producers would be able to establish strong production and market linkages.

The Guyana Livestock Development Authority (GLDA) is crucial for the transformation of the agricultural sector. The livestock sector is the fastest-growing sub-sector, and has the potential to be a vibrant, dynamic and competitive force in Guyana's agriculture-based economy. A primary area of focus will be research and development, in an effort to establish the sector's development on a firm base. The GLDA is catering for large scale export in the future, taking into consideration trends and demands for livestock. The GLDA will be a vehicle for strategic changes. These changes will be rolled out over the next few years, and include a \$200M investment in genetic improvement, a \$200M state-of-the-art vet lab, and an additional \$200M for a state-of-the-art abattoir, as well as \$320M to be expended on grants to livestock farmers.

GENERAL CAUSES AND CONSTRAINTS CONTRIBUTING TO FOOD AND NUTRITION INSECURITY

Understanding what contributes to food and nutrition insecurity and related vulnerability (the causes and constraints) is essential to improving the food and nutrition security situation. It requires investigating the way people live and understanding why they live the way they do and how this might be changed. The analysis carried out under the regional food security project included a livelihoods assessment that facilitates the definition of interventions that are focused on people, are multi-dimensional (both in terms of activities and actors), dynamic and sustainable. These results contributed to a more recent analysis in determining the explanatory factors limiting food and nutrition security.

A. Factors Impacting on National Food Availability

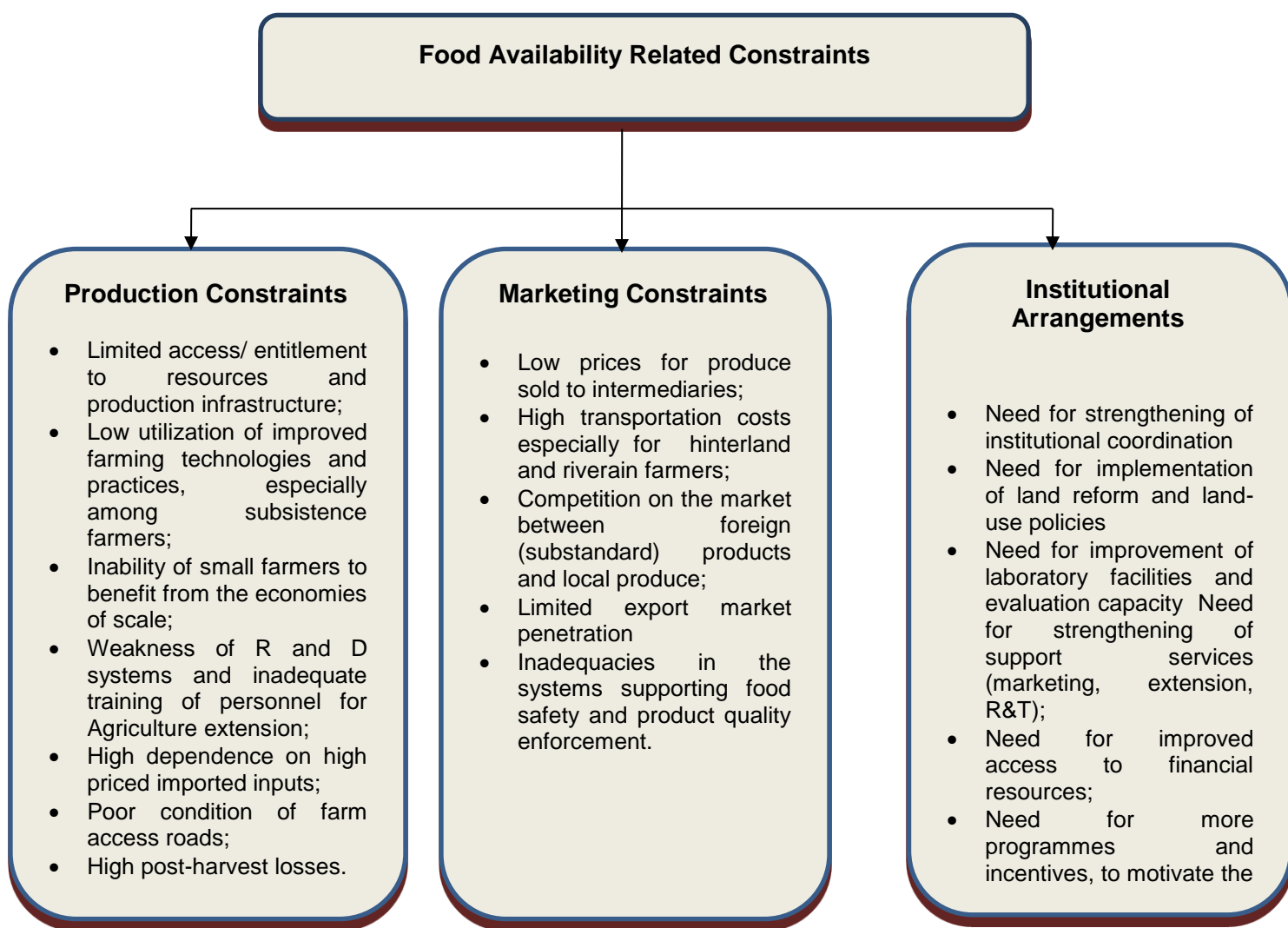
Given Guyana's large endowment of natural resources and levels of agricultural production historically, food availability is not generally considered a major challenge. If consideration is given to the six (Caribbean) food groups--staples, foods from animals, legumes, vegetables, fruits and fats and oils--one can conclude that Guyana is self-sufficient in the production of foods from each of these food groups. Agricultural production takes place predominantly in the coastal regions of the country where approximately 90% of the population reside. However, a large percentage of the population is located in the urban coastal town where agricultural production is limited to backyard gardening.

Rice, sugar, forestry and fisheries are considered the traditional agricultural sub-sectors. These sub-sectors all produce much more than is demanded domestically and thus supply their products to export markets. The non-traditional agricultural sub-sector is also critically important, especially in terms of diet diversification and enabling poorer and smaller producers/farmers to provide for their families. In fact, coastal and riverain farmers (two of the vulnerable groups identified in Section 2) are the primary producers in the non-traditional agricultural sub-sector. This sector comprises grain crops (corn, black-eye and minica), oil seeds (peanut, coconut and oil palm), root and tuber crops (cassava, sweet potato, eddo, yam, tannia/dasheen and plantain), vegetables and greens (bora, boulanger, tomato, ochro, pumpkin, cabbage, peppers, etc.), spices and seasonings (eschallot, celery, thyme, etc.), a wide variety of fruits (mango, pineapple, citrus, passion fruit, cherry, watermelon, papaya, etc.), other crops such as cocoa and coffee and livestock (dairy, beef, poultry, pig, sheep, goat and honey). The non-traditional

agricultural sub-sector is therefore clearly an important contributor in helping the population to satisfy its food need from the six food groups.

With regard to national food availability, it can be said that despite the relatively high production levels for the domestic market, there are serious constraints related to productivity, quality, regularity and volumes that contribute to the general inability to compete in the market place. **Figure 1** presents more details on these constraints.

Figure 1: Factors Affecting National Food Availability



In the context of food production and marketing there are some specific constraints limiting income earning due to the inability to sell more products in overseas markets, especially the nearby CARICOM market. These constraints include:

- Historical perception of Guyana’s products as low quality
- Inefficient intra-regional transportation system
- Limited information on regional demand and supply
- Unreliability of supplies over the medium- to long-run.
- Insufficient/uneven application of the Common External Tariff
- Limited promotion of goods produced in the region
- Undeveloped manufacturing and value-adding sectors
- Relatively lower cost of imported commodities into the region

B. Factors Affecting Access to Food

The main livelihood systems associated with food insecurity related to accessibility are *small scale independent artisans* (small fishermen, small-scale miners); *marginal populations in urban areas* (labourers, single parents, pensioners- including elderly persons living alone on fixed incomes or without support); and the Amerindians in the hinterland regions. Whether they are wage earners or subsistence producers, one of the general characteristics of these livelihoods is that of having to survive and, in most cases, support a family on a very limited income. This has a significant impact on their ability to access wholesome and nutritious foods. Sugar cane workers, for example, during the ‘out-of- crop ‘period may have to resort to reducing the number and quality of daily meals as a result a reduction in cash available for the purchase of food.

In the mining town of Linden, the decline in the bauxite industry has resulted in high unemployment. Linden is generally not an agricultural producing area and consequently food supplies brought to this region are relatively highly priced. Wage labourers, single parents and other independent artisans often face situations of temporary food insecurity.

In the hinterland, most people practice shifting agriculture, fishing and hunting at the subsistence level. Income-generating opportunities are limited in these areas. Some of the existing options are “pork-knocking” (small-scale mining), logging and harvesting hearts of palm.

The high incidence of poverty and food insecurity that exists in these hinterland areas results primarily from these factors:

- Lack of access to productive resources including land and capital
- Limited access to basic services
- Limited employment opportunities
- Low per capita income
- Low levels of education
- High price of food, linked to high transportation cost

In addition to the above, a number of factors highlighted in recent strategies, for instance, the National Competitiveness Strategy (2006) and the Low Carbon Development Strategy (2010), are Insufficient public investment in rural infrastructure, limited access to production-related support services and insufficient investment in human and social capital.

C. Factors Affecting Utilisation

Over the past two or more decades there has been a marked change in the food consumption patterns of the Guyanese population. This change has been characterized by a general shift away from traditional and cultural based food consumption patterns to one that more reflects the lifestyle and habits of developed Western societies. Thus, there has been an increase in the consumption of fast foods, processed foods, food consumed outside of the home, and imported foods.

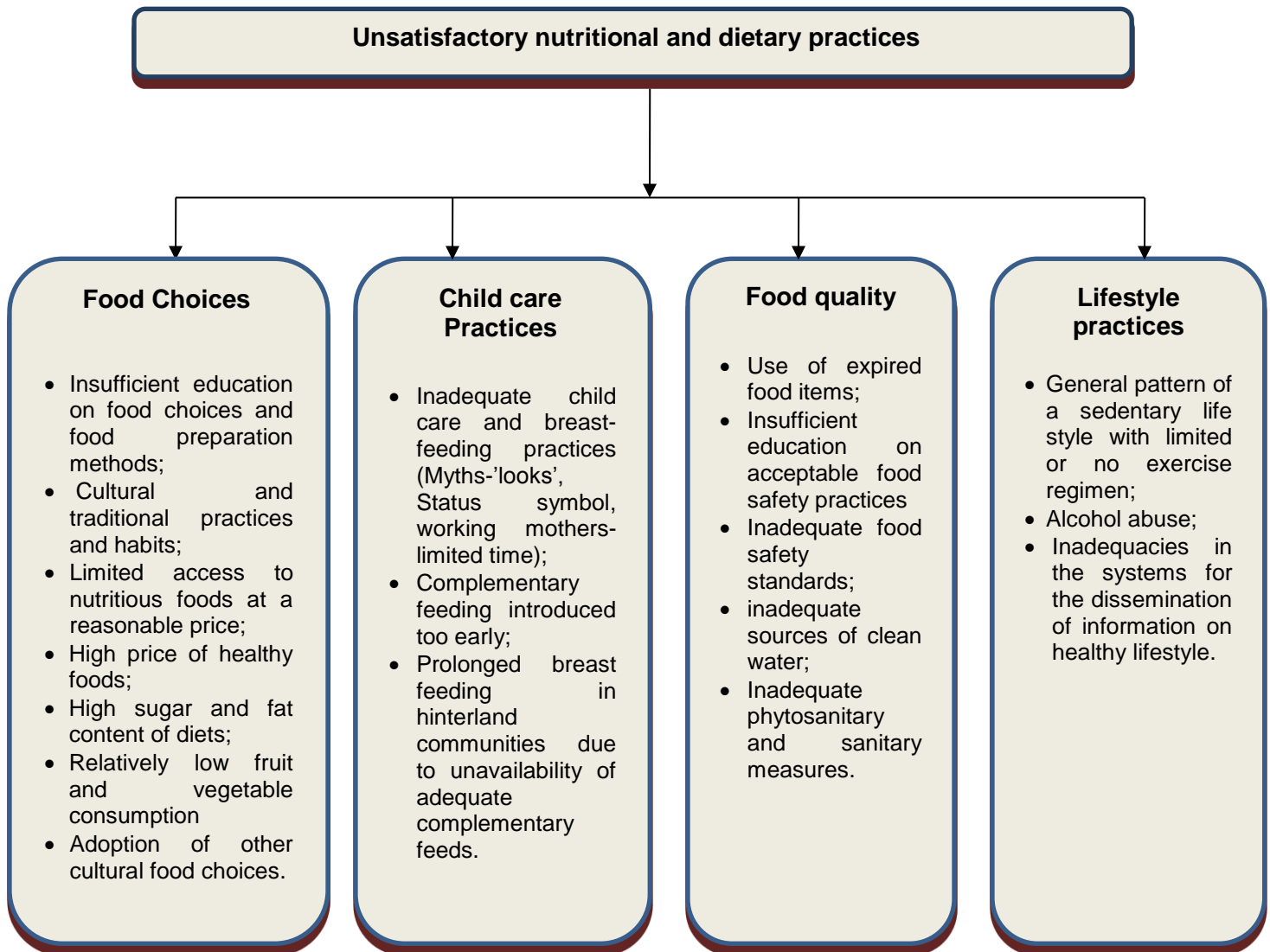
Historically, the traditional food consumption patterns in Guyana reflected the ethnic diversity of the Guyanese populations. Rice and ground provisions have long been major staples in the diet of Guyanese. Wheaten flour, an imported commodity, also ranks high in the traditional Guyanese diet. Locally produced fruits and vegetables were the preferred choice of Guyanese and an important part of the food basket, often being sourced from own backyard gardening production. In terms of meat-based protein, fresh sea food bought from local markets provided an adequate source and was complemented by backyard rearing of poultry and, in rural areas, small ruminants. The local village and street markets played an important role in the distribution of locally-produced foods. This was particularly important in urban areas where the possibility for growing fresh produce was always relatively limited.

The dietary/nutritional transition being observed is not unique to Guyana where it is represented by a shift away from diets described above to more varied energy-dense diets based on more processed foods and beverages--imported items, many of which may be genetically modified, more of animal origin, more added sugar, fats and often more alcohol. An epidemiological transition is associated with the diet shift as nutrition--related chronic non-communicable diseases such diabetes, high blood pressure, stroke, heart diseases, and cancer have replaced malnutrition and infectious diseases as 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 life. Unbalanced diets and a sedentary lifestyle have also increased the prevalence of chronic non-communicable diseases, even among the poor. Over the past two and a half decades there has been an increase in the prevalence of obesity, principally in adults, but also to some extent in adolescents. Associated with obesity is the concomitant increase in nutrition-related chronic diseases.” (FAO/CFNI, 2007)

Several factors have been identified to account for this nutrition transition and resulting poor utilization of food. These include a) increasing incomes associated with a shift in the structure of consumption patterns to higher fat products; b) the long-term reduction in the real prices of basic commodities in the developing world over the last several decades, despite the increases over the past four years; c) the mass marketing of brands and huge investments in advertising that moulds consumer tastes; d) lack of education on food choices and food preparation methods; e) limited access to nutritious foods at a reasonable price; f) inadequate food safety standards, resulting in low quality foods being offered on the market which have increased utilization risks; f) time-related demands that have led to the changes in the level of processed foods consumed at home and the proportion of meals consumed away from home; g) the rapid growth of the market segment of the supermarket retail trade and of its catchment area and its penetration into poorer communities; h) the rapid rate of urbanisation; and i) the increasing rate of entry of women into the workforce.

Figure 2 presents information on the causes of *unsatisfactory nutritional and dietary practices in Guyana*. This information was generated from the Problem Tree Analysis undertaken during workshop sessions held in Guyana as part of a Food and Nutrition Security Assessment initiative.

Figure 2: Factors Affecting Utilisation



D. Factors affecting stability

Natural disasters and changing climate have affected and continuously threaten the stability of food supplies and accessibility by the population, and are in their own right a major cause of instability. Both droughts and floods have been more frequent and intense, with Guyana's population increasingly suffering more from these shocks during the last ten years. Early warning and disaster response systems are weak. Longer term planning and more comprehensive stability-promoting measures related to building resilience such as infrastructure development and risk management need to be put in place.

Some social and economic crises (such as high food prices and loss of income related to the current global financial and economic challenges) appear outside the sphere of stakeholders and decision makers. Policy measures to address economic instabilities such as temporary employment schemes and/food assistance programmes are lacking and if to be used also need careful design and implementation.

Associated institutional systems and policies are inadequate. The result is a lack of effective coordination mechanisms at the regional and national levels, across institutional and organizational points. These would facilitate dialogue on critical issues related to risk management and food security and the development of adequate planning and execution of proposals to improve the situation. The limited knowledge and awareness of food security concepts, approaches, and indicators at all levels of political, private sector, civic and community and policy makers—together with an absence of strategy--also contributes to instability in food and nutrition security.

STRATEGIC APPROACH TO ACHIEVING FOOD AND NUTRITION SECURITY IN GUYANA

Guyana's food insecurity challenge tends to be related more to issues of accessibility (employment opportunities), utilization of food (nutrition related to health education, food preparation, food quality and safety) and stability (natural and economic shocks on the food supply systems) than it is to availability of food (production based shortages and inefficiencies). This view shapes the approach to food and nutrition security in Guyana reflected in **Figure 3**, which summarizes the overall goal, specific goals and objectives of the strategy.

The overall goal of the proposed Food and Nutrition Security Strategy is *to improve the health and well-being of all persons living in Guyana through enhanced Food and Nutrition Security*. In the development and implementation of policies and programmes to achieve this overall goal, measures will be taken that will impact the entire population. However, specific focus will be given to the section of the population that lives in poverty and that are considered vulnerable to food and nutrition insecurity.

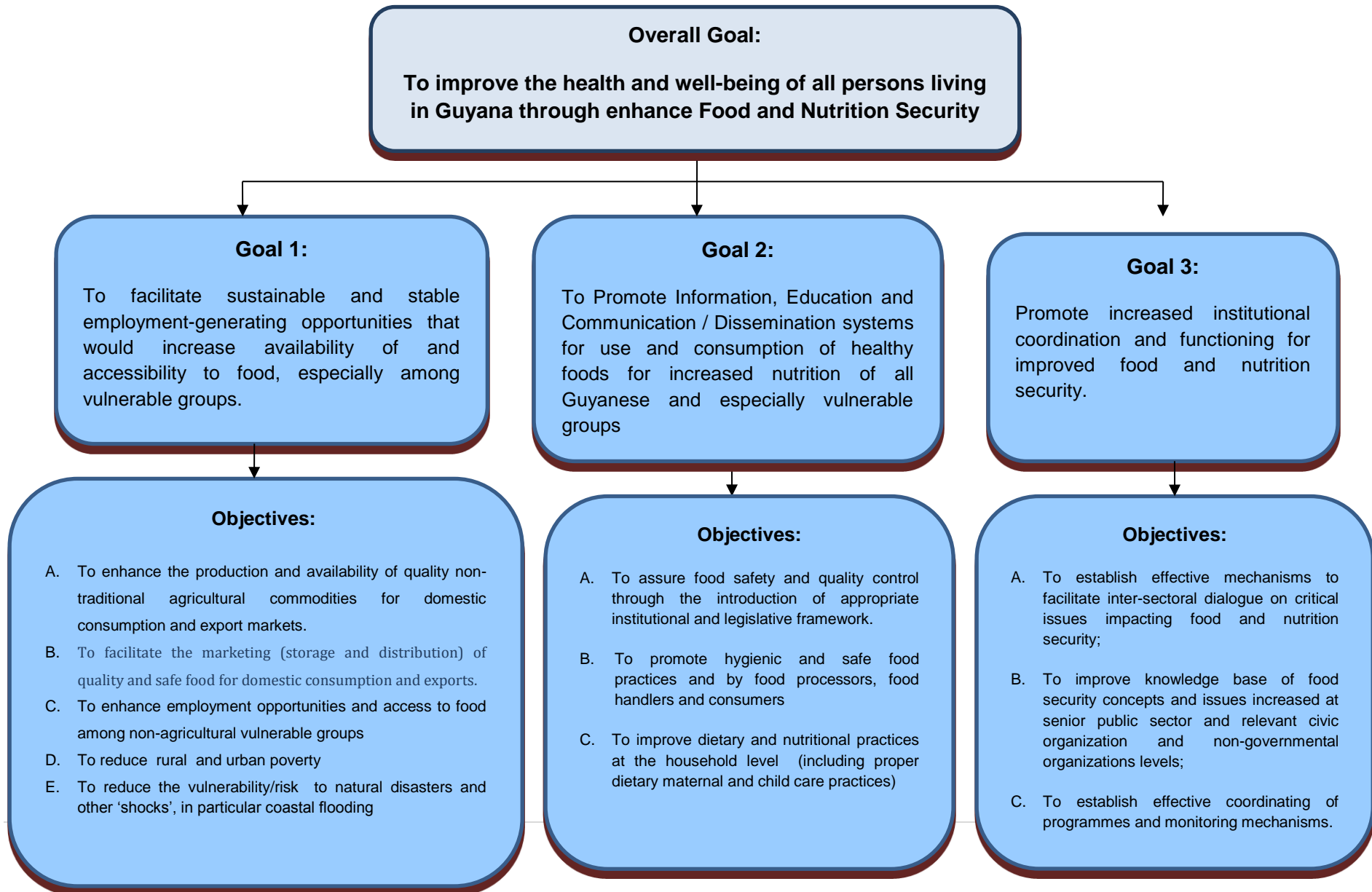
GOAL 1:

To facilitate sustainable and stable employment generating opportunities that would increase availability of and accessibility to food, especially among vulnerable groups.

This goal will be to systematically reduce the current levels of poverty of the rural population in Guyana while identifying market opportunities and promoting the development of economically viable agricultural and non agricultural enterprises. Importantly, it recognizes the need to provide technical assistance and training in areas related to basic life skills, literacy, skills training for employment, and building cohesive households and communities.

The importance of targeting especially vulnerable groups is also highlighted in this goal. This ensures that programmes and activities will give particular attention to Amerindian communities, smallholder farmers, mining communities, female-headed households, and pensioners, among others. The results of the Food Security and Vulnerability Assessment (2008) have highlighted key resources, strengths and opportunities that are available to the various vulnerable groups, together with information on challenges and existing coping mechanisms. This information

Figure 3: Schematic Presentation of Strategy Framework- Overall Goal, Goals, Objectives



provides an excellent platform for the design of targeted programmes and actions to address the needs of the vulnerable and food insecure. Activities aimed at providing improved production and marketing technologies to subsistence farmers would, for example, have to take into consideration the specific production and marketing needs (technical and training) of coastal, riverain and hinterland farmers.

Embodied in this goal is recognition of the critical linkages between social development and economic development, both as a means to achieving the overall strategic goal and as a means of ensuring long-term growth and development. It is for this reason that the proposed strategy involves inter-sectoral collaboration in the implementation of actions that would impact the income, education, health and family life of the food insecure and vulnerable.

The objectives of Goal 1 are:

- a) To enhance the production and availability of quality non-traditional agricultural commodities for domestic consumption and export markets.
- b) To facilitate the marketing (storage and distribution) of quality and safe food for domestic consumption and exports.
- c) To enhance employment opportunities and access to food among non-agricultural vulnerable groups
- d) To reduce rural and urban poverty
- e) To reduce the vulnerability/ risk to natural disasters, in particular coastal flooding.

STRATEGIC INTERVENTIONS GOAL 1 (G1):

Specific Objective: G1.A1

Increase the capacity of farmers to efficiently and effectively produce non-traditional commodities.

Activity 1: Increase the availability and selection of cultivars and planting material.

Activity 2: Provide training to farmers on appropriate crop husbandry practices to improve production and productivity using the Farmers' Field School approach.

Activity 3: Establish demonstration farm to promote improved technologies.

Activity 4: Demonstrate year round production of fruits and vegetables utilizing shaded/greenhouse cultivation.

Activity 5: Provide training on appropriate technologies including small/medium scale hydroponics and aquaponics production.

Activity 6: Provide training on appropriate technologies and support services in livestock production, including pig rearing.

Activity 6: Develop and expand draining and irrigation infrastructure in key agricultural regions.

Specific Objective: G1.A2

Provide training to farmers on appropriate pre and post harvest treatments of perishable commodities.

Activity 1: Train farmers on the importance of the appropriate time to harvest and methods of harvesting.

Activity 2: Demonstrate simple technologies such as the use of bunch covers (plantains) and field storage conditions (cassava, eddo, etc.).

Activity 3: Train farmers on appropriate storage (including solar drying) and transportation methods for getting produce to markets and packaging facilities.

Activity 4: Promote research and development and build capacity at the household level of appropriate methods of food handling, preservation, value addition and storage

Activity 5: Ensure that good agricultural practices are utilized by farmers.

Specific Objective G1.B.1

To promote appropriate post-harvest, storage, transport and distribution practices and encourage the development of value added production.

Activity 1: Provide training to farmers, handlers (transporters, labourers) and exporters on appropriate post-harvest handling practices, to improve minimize post harvest losses.

Activity 2: Promote the use of Plastic/field crates for packaging and transport of non-traditional agricultural produce from farm-gate to packaging facility or local market.

Activity 3: Promote the use of refrigerated trucks for transport from field to packaging facility and from packaging facility to port of exit.

Activity 4: Support capacity building of agro-processors, particularly SMEs, to meet international quality and safety standards (CARTF model)

Activity 5: Facilitate the youth and women (and other relevant vulnerable groups) to access developmental funding for promotion of value-addition, cottage type industries and agro-processing development.

Activity 6: Provide tax incentives to promote value addition and agro-processing industries in both rural and urban areas.

Activity 7: Develop and expand farm-to-market access roads and transport infrastructure in key agricultural regions

Specific Objective G1.B.2

Increase the availability of quality market information to stakeholders (farmers, exporters, agro-processors, agri-business investors, policy makers) and facilitate establishment and sustainability of market linkages.

Activity 1: Operate and maintain a website that has the latest market information on prices, buyer information, market entry requirements, transport links, etc.

Activity 2: Prepare and distribute newsletters, CD's, DVD's to stakeholders who may not have access to the internet.

Activity 3: Develop, publicize and promote listening to a weekly farmers' television programme that provides specific and timely information to farmers and other stakeholders.

Activity 4: Provide and facilitate establishment of linkages to market opportunities, including links to fellow suppliers to exploit the opportunity jointly.

Activity 5: Develop specific programmes for establishing links with "border" markets as a more direct strategy for hinterland development.

Specific Objective G1.C1

Designing and implementing a forest industry sector development strategy for Guyana

Activity 1: Prepare of a comprehensive forest industry sector development strategy for Guyana directed at small entrepreneurs

Activity 2: Increase value adding and enhanced market access for Guyanese forest products based on the principles of sustainable development

Activity 3: Develop capacity for establishing and maintaining a forest inventory.

Activity 4: Promote greater utilization of minor species and the use of non-timber forest resources.

Activity 5: Facilitate organisation and capacity building among small forestry operators and value-added businesses.

Specific Objective G1. C2

Promote fishing as a livelihood that is socially desirable and financially rewarding.

- Activity 1: Introduce initiatives that would facilitate improved production opportunities and practices including
- reliable and affordable access to inputs;
 - improved landing sites facilities;
 - adequate on-shore facilities for post-harvest handling and storage (including ice-making facility).
- Activity 2: Training in a number of key areas including
- good safety and hygiene;
 - sustainable fishing techniques;
 - fish processing and preservation techniques;
 - marine resource conservation;
 - safety at sea;
 - engine repairs, etc.
- Activity 3: Organisational/ management strengthening including
- organisational strengthening of co-ops and associations
 - training in integrated business management skills
 - fostering of appropriate linkages with other stakeholders.
 - providing adequate representation at the decision-making/policy making level.
 - improving security to prevent theft, vandalism and piracy.
- Activity 4: Promote expansion and use of recent aquaculture industry interventions, including aquaponics.
- Activity 5: Promote consumption of aquaculture species in the domestic and regional market including the identification of marketing opportunities for less-known commercial species.

Specific Objective G1.C3

Rehabilitate, expand and promote the hinterland organic product export base

- Activity 1: Identify products with market potentials (cocoa, coconut and honey industries, medicinal products, etc.).
- Activity 2: Train for and promote the adoption of appropriate production technology systems.

Activity 3: Establish collaborative links with regional and international partners for information sharing, investing and marketing collaboration (e.g. Suriname, Belize and international NGOs and educational institutions).

Activity 4: Identify and access support to enter niche market opportunities.

Specific Objective G1.D1

Improvement and expansion of Rural, Urban and Peri-Urban Training and Employment opportunities

Activity 1: Conduct an assessment of existing safety net and development (training) programmes to determine impact and scope for improvement.

Activity 2: Support and promote capacity building to enhance small businesses and entrepreneurial skills.

Activity 3: Provide legal and institutional support to small rural enterprises, particularly with regard to training, business development services, institutional support, marketing and information.

Activity 4: Support measures that improve access to basic needs in rural and marginal urban areas.

Activity 5: Assist small business enterprises (including agricultural producers) to access affordable financial resources.

Activity 6: Support activities that enhance the income generation capacity of people with special needs and disadvantages such as the physically challenged, the elderly and the indigent.

Specific Objective G1.E1

To enable food insecure and vulnerable groups to adjust to effects of natural disasters and other 'shocks'

Activity 1: Develop effective early warning information systems.

Activity 2: Establish mechanisms to ensure the effective functioning and operation of disaster preparedness management authorities.

Activity 3: Train municipal and village level emergency management committee members in administration of contingency planning, including distribution of supplies during emergencies (food, shelter and health related).

Activity 4: Coordinate with collection, Control and Distribution of Food and Materials Committee to guarantee the availability of food during emergencies and disasters.

Activity 5: Assess existing safety net programmes and the implementation of targeted and effective programmes.

Activity 6: Design and implement safety nets programmes (feeding programmes, children education incentives, improved diet and health practices, tax relief, etc) to protect the food insecure i.e. the poor, elderly, Amerindians, persons living with HIV, persons in crisis situations).

GOAL 2:

To promote systems (Information, Education and Communication/ Dissemination) for use and consumption of healthy foods for increased nutrition of all Guyanese and especially vulnerable groups. Food and nutrition insecurity has a debilitating effect on the nutritional status and general well-being of a population. In the short-term it increases micro-nutrient deficiencies, wasting and stunting among children. In the long term it creates poverty traps, increases infant mortality, low birth weight, maternal mortality and other morbidities and mortalities associated with unhealthy eating e.g. obesity and the chronic nutrition-related diseases.

In Guyana, food and nutrition insecurity at the household level is not a result of poor crop harvests or insufficient calories per capita. Food insecurity at the household level is largely a result of inadequate access to food by the poor and vulnerable, and nutrition insecurity is a result of unhealthy food choices, and eating habits by the poor and not so poor. Information from the Food and Nutrition Security Assessment conducted in Guyana (2008) shows that a number of the vulnerable groups reduce the quality and quantity of their dietary intake during periods of reduced income availability (eg. out-of-crop season for sugar cane harvesters).

Guyana, like many countries in Caribbean region, is witnessing an increasing prevalence of obesity and its co-morbidities—diabetes, hypertension, stroke, cardiovascular diseases, some cancers and gallbladder diseases. Against this background, interventions are needed to sustain successes made in the past with respect to under-nutrition and infectious diseases, and to address the rapidly increasing non-communicable diseases that are now a major public health concern.

Data from recent food consumption surveys indicate several areas of concern for food and nutrition security. In Guyana, the major risk groups with respect to diets are females, persons living in the Interior (including Amerindians), persons in the age range 50-64. The major areas of concern appear to be

- ❖ Relatively high fat consumption which is linked to food preparation practices and practices at the table. (Targeting females seems warranted since they are not only more vulnerable, but are also responsible for food preparation.)
- ❖ Food availability and accessibility--especially in the more remote areas;
- ❖ Lack of diet diversity--especially the non-inclusion of fruits and vegetables;
- ❖ Possibility of micronutrient deficiency in some older persons and in females (iron deficiency in particular);
- ❖ Trends towards increasing levels of overweight and obesity especially in women coupled with some incorrect perceptions of body size among those who are in fact overweight.

Guyana therefore needs to adopt a multifaceted approach as it seeks to address the challenges related to the food and nutrition insecurity. In addition to upgrades in agriculture and trade, there must be investments and interventions that result in increased food accessibility and improved availability of nutrition information. Due attention must be given to capacity building for a stronger and more vibrant nutrition education programme and the upgrading of health and food safety systems, as these are equally vital pathways out of food and nutrition insecurity.

These issues will be addressed by the implementation of programmes geared to

- promote healthy lifestyles;
- Increase human capacity to promote healthy lifestyles;
- market local foods in complementary feeding;
- promote the use of local foods;
- enhance food safety practices among food handlers.

The objectives of Goal 2 are:

- a) To assure food safety and quality control through the introduction of appropriate Institutional and legislative framework
- b) To promote hygienic and safe food practices and by food processors, food handlers and consumers
- c) To improve dietary and nutritional practices at the household level (including proper dietary maternal and child care practices)

STRATEGIC INTERVENTIONS GOAL 2 (G2)

Specific Objective G2.A1

Review and harmonize food safety and quality regulatory and institutional framework to improve coordination and enforcement

- Activity 1: Incorporate the “Right to Food” legislation in the National Constitution
- Activity 2: Review and update existing food safety legislation.
- Activity 3: Adopt and incorporate international food safety standards into the national laws, legal framework and regulatory ordinances of Guyana.
- Activity 4: Enforce mandatory food safety and quality standards.
- Activity 5: Introduce measures to deal with the use of illegal chemicals by farmers.
- Activity 6: Establish a committee/advisory body that will coordinate the education of farmers, vendors, consumers and all other stakeholders about food safety practices.
- Activity 7: Develop training programmes and train regulatory and food processing plant personnel in food inspection and sanitary audit procedures.
- Activity 8: Train laboratory personnel in food testing protocols.
- Activity 9: Introduce systems to provide for appropriate monitoring and evaluation procedures to ensure the implementation of regulations and to determine their impact.
- Activity 10: Investigate the need for reduction in the importation and production of unhealthy, low cost non-food items (junk food).
- Activity 11: Investigate possible use of food accessibility data in determining salaries and wage increases.

Specific Objective G2.B1

To ensure that food made available to consumers is safe and wholesome.

- Activity 1: Institute food testing of samples collected periodically from selected food processing establishments and vendors.
- Activity 2: Develop training programmes and train regulatory and food processing plant personnel in food inspection and sanitary audit procedures.
- Activity 3: Revise food handlers’ certification programme.
- Activity 4: Develop national training module and manual for food handlers.
- Activity 5: Provide incentives to food handlers to increase quality and safety of their offerings.
- Activity 6: Establish systems for the regular monitoring and grading of restaurants and other food outlets so that people would be aware of the national standards.

Activity 7: Develop promotional materials on food safety for the media and general public

Activity 8: Conduct food safety public awareness campaigns

Specific Objective G2.C1

Support the development and dissemination of information, education and communication material on appropriate diets and lifestyles.

Activity 1: Develop and implement priority nutrition packages (e.g. supplements, training programmes, information and education material) for the following vulnerable groups: adolescents, women of reproductive age, pregnant and lactating women, infants 0-6mths, children 6mths-5yrs, the elderly and indigent, persons living in crisis situations e.g. floods.

Activity 2: Review and upgrade Guyana's Food Based Dietary Guidelines¹ (FBDG) and communication plan.

Activity 3: Intensify implementation of promotional activities. Agencies such as GINA and the various media houses should collaborate to stage ongoing public awareness campaigns to communicate appropriate diets and lifestyles.

Activity 4: Strengthen and fully operationalize, existing mechanisms (e.g. CFNI's nutrient cost analysis) for assessing accessibility of a healthy food basket.

Activity 5: Promote the monitoring of the dietary habits and nutrition status of the Guyanese population via the execution of nutrition surveys at 2, 5 or 10 yrs interval and through routine growth monitoring for infants

Specific Objective G2.C2

To reduce the incidence and prevalence of diet related NCDs and enhance their control and management

Activity 1: Promote healthy diets and lifestyles including physical exercise.

Activity 2: Improve marketing strategies and nutrition promotion to increase the consumption of healthy foods especially those high in fibre and iron: fruits, vegetables, peas and beans.

Activity 3: Develop mass media campaign to promote proper nutrition and exercise throughout the life cycle.

¹ The FBDGs are seven guidelines that were developed in an effort to correct negative dietary habits that are prevalent among Guyanese. They address issues such as household food production, food selection, meal planning, cooking techniques, and alcohol consumption.

- Activity 4: Support programmes to create awareness on the importance of individual routine health and nutritional assessment.
- Activity 5: Promote the consumption of wholesome and nutritious indigenous foods in households and eating outlets.
- Activity 6: Promote research and monitoring systems focused on prevalence and trends of NCDs.
- Activity 7: Develop comprehensive programmes on prevention and management of diet-related NCDs.

Specific Objective G2.C3

Micronutrient Deficiency prevention and control

- Activity 1: Strengthen routine and therapeutic micro-nutrient supplementation (vitamin A and foliates for children and women and identified vulnerable groups)
- Activity 2: Promote foods rich in iron, vitamin A and other micro-nutrients
- Activity 3: Advocate for industries to fortify specific food products
- Activity 4: Introduce iron/folic acid supplementation for women 15-45 years
- Activity 5: Conduct public awareness campaigns for the use of fortified food products

Specific Objective G2.C4

To improve nutritional status of school children

- Activity 1: Upgrade school feeding programme to include schools at the nursery and primary level.
- Activity 2: Set specific nutrition and health indicators to monitor the nutritional status of school children.
- Activity 3: Develop a data management system.
- Activity 4: Develop and implement school health card.
- Activity 5: Develop a school health programme to assess nutritional status.
- Activity 6: Train staff to collect and analyze data.
- Activity 7: Collect and analyze data on school age children.

Specific Objective G2.C5

To provide appropriate knowledge to school children on the importance of good nutrition for a healthy and active life.

- Activity 1: Integrate nutrition education in school curricula at all levels- Nursery through Secondary

- Activity 2: Strengthen the nutrition component in the teachers' training curriculum as well as the training of health workers
- Activity 3: Establish backyard gardens in selected schools and support the strengthening of existing backyard gardens

Specific Objective G2.C6

Strengthen the provision of nutrition education and counselling

- Activity 1: Reproduce and disseminate local publication on availability of local foods and their nutrient values.
- Activity 2: Develop and disseminate recipes using local foods.
- Activity 3: Conduct appropriate demonstrations.
- Activity 4: Promote and implement wellness programmes at the workplace

GOAL 3:

Promote increased institutional coordination and functioning for improved food and nutrition security.

The improvement of the food and nutrition security situation requires multidimensional and multi-sectoral interventions. An effective and efficiently working institutional framework is therefore essential to the achievement of food and nutrition security. Promoting food security requires complementary interventions in different sectors (agriculture, health, trade and education) and at different levels (household, community, national, regional), with different temporal dimensions. Different circumstances require different actions and involve a wide cross section of actors. Thus, clear goals, guidelines, legislation and cooperation agreements are essential to delivering on commitments related to food and nutrition security.

In 2008 a Special Select Committee was appointed in response to a Parliamentary directive for a comprehensive national response to the food security crisis facing Guyana. Under the directive of the Minister of Agriculture, the Select Committee proceeded to develop a Ten Year Food and Nutrition Security Strategy for Guyana.

Figure 4: Food and Nutrition Security Implementation Framework

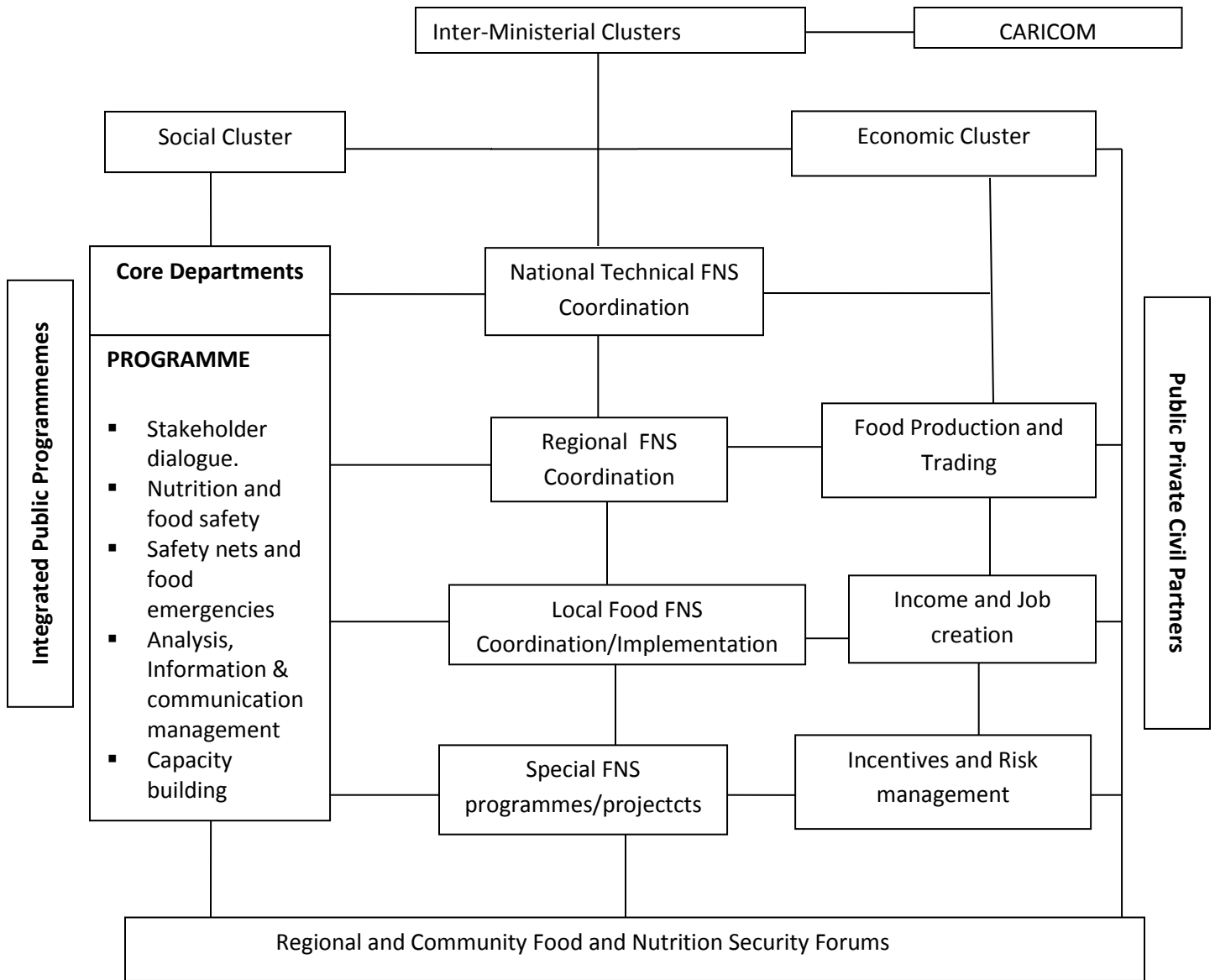


Figure 4 shows the recommended institutional framework for the implementation of the Food and Nutrition Security Strategy. The proposed institutional structure follows on the guidelines of inclusivity and integration of programme leaders. The structure provides for a range of functionaries, whose activities are integrated to include and accommodate delivery line mandate, advisory (monitoring and setting objectives) coordination and implementation actions. The structure is also compatible with the various levels of governments.

It is being proposed as part of the institutional and coordination framework that the mandate of the Parliamentary Sectoral Committee on High Food Prices, be expanded to include the implementation of the Food Security and Nutrition Strategy for Guyana.

This would in fact mean that the Committee would have the following broad mandates:

- To promote a wide, multi-sectoral approach in response to the issues of Food and Nutrition Security.
- To oversee the implementation of programmes and activities that promote food and Nutrition Security.
- To provide appropriate guidelines for the implementation of an effective monitoring and evaluation system
- To establish a forum for Inter-regional dialogue (at the level of CARICOM) on issues related to regional food and nutrition security

At the highest level of the structure is the Inter-Ministerial Committee composed of a social and an economic cluster. The social cluster is comprised of Ministers from the Ministries of Health, Education, Human Services, etc. While the economic cluster will be made-up of Ministers from the Ministries of Agriculture, Trade, Health and Education, the Minister of Agriculture will chair the Committee. The role of the Committee will be to give political direction by making policy decisions and reporting to the President and to Parliament regarding progress towards achieving food security targets, and to serve as the link to the technical governmental and non-governmental coordinators for implementation of programmes and actions.

The Inter-Ministerial Committee will also be responsible for liaising with the regional body (at the level of CARICOM), responsible for the coordination and implementation of regional food and nutrition security related interventions in various member states. The involvement of a coordinating body at the level of CARICOM is seen as important for a number of reasons. Firstly, from the point of view of the sharing of 'best practices', both at the technical and administrative level, thereby optimising the use of scarce resources at the country level. A regional body could also be a key player in the mobilisation of external resources and funding needed for the implementation of regional initiatives. The development of critical links required to facilitate the further development of intra-regional trade and other bilateral

and multilateral relationships is also seen as function of the Food and Nutrition Security Forum at the level of CARICOM.

Stakeholders from public sector, private sector, civil society and the donor community will constitute a National Technical Coordination Unit to serve the expanded Parliamentary Sectorial Committee. This forum will provide strategic information and assistance on both policy and programme dimensions of achieving food and nutrition security. It will also recommend standards and policy options. The National Technical Coordination Unit will be responsible for coordination, promotion and implementation of the Food and Nutrition Security strategy across the public and private sector in Guyana. The membership will be the Technical Officers (TOs) within the Ministries with responsibility for the implementation of food and nutrition security related activities. The leadership will be provided by the Ministry of Agriculture Technician responsible for Food Security Initiatives.

Regional and Community Food and Nutrition Security Forums (CFNSF) will be constituted by stakeholders from government, private sector, civil society and the donor community at each of the ten administrative regions of Guyana. This is to facilitate wider participation of all stakeholders in informing the work of the Parliamentary Sectorial Committee on Food and Nutrition Security, especially among national, regional, local governments in support of food security goals. Another key function of these coordinating groups will be to prioritize projects related to food security and facilitate food security project coordination, identification, management and evaluation.

The above described institutional structure is aimed at providing the mechanism for coordinating and implementing the programmes and activities required to achieve the desired goals and objectives.

Objectives

- A. To establish effective mechanisms to facilitate inter-sectoral dialogue on critical issues impacting food and nutrition security.
- B. To expand the knowledge base of food security concepts and issues increased at senior public sector and relevant civic organization and non-governmental organizations levels
- C. To establish effective coordinating of programmes and monitoring mechanisms

STRATEGIC INTERVENTIONS GOAL 3 (G3)

Specific Objective G3.A1

To establish effective mechanisms to facilitate inter-sectoral dialogue on critical issues impacting food and nutrition security.

- Activity 1: Preparation of legislation for establishment of a Food Security and Nutrition Council, including a technical working group to serve in implementation of its mandate.
- Activity 2: Establishment of the Guyana Food Security and Nutrition Council.
- Activity 3: Establishment of the Technical Working Group to serve the Food Security and Nutrition Council
- Activity 4: Establishment of a consultation system for wide participation of the all stakeholders in informing the work of the Council, especially among national, regional, local governments in support of food security goals.

Specific Objective G3.B1

Training in food security concepts and processes at all public, private sector and community levels, emphasising the issues relevant to their interests.

- Activity 1: Preparation of training and communication materials on food security concepts and goals so that all stakeholders are aware of the commitments and programmes
- Activity 2: Implementation of food security planning training at the national and decentralized levels linked to resources and technical support.
- Activity 3: Development of local capacity to participate in the food and nutrition security planning and implementation process.

Specific Objective G3.C1

To establish effective coordinating of programmes and monitoring mechanisms

- Activity 1: Foster co-operation among government, donor agencies, private sector and NGO's.
- Activity 2: Enable co-ordination among departments at national and regional levels.
- Activity 3: Prepare of a list of food and nutrition security (FNS) process and outcome indicators to be utilized.
- Activity 4: Establish a system of collection, analysis and reporting on FNS indicators.
- Activity 5: Establish linkages with an institution of higher learning to implement food and nutrition security evaluations to inform the work of the Council.

Figure 4 shows the recommended Intuitional Framework for the implementation of the Food and Nutrition Strategy. The proposed institutional structure follows on the guidelines of inclusivity and integration of programme leaders. The structure provides for a range of functionaries, whose activities are integrated to include and accommodate delivery line mandate, advisory (monitoring and setting objectives) coordination and implementation actions. The structure is also compatible with the various levels of governments.

The proposed implementation framework is designed to ensure the achievement of the following broad mandates:

- To promote a wide, multi-sectoral approach in response to the issues of food and nutrition security.
- To oversee the implementation of programmes and activities that promote food and nutrition security.
- To provide appropriate guidelines for the implementation of an effective monitoring and evaluation system
- To establish a forum for Inter-regional dialogue (at the level of CARICOM) on issues related to regional food and nutrition security

At the highest level of the structure is the Inter-Ministerial Council composed of a social and an economic cluster. The Minister of Agriculture will chair the Council. The role of the Council is to give a political direction by making policy decisions and reporting to the President and to parliament regarding progress towards achieving food security targets, and to serve as the link to the technical governmental and non-governmental co-ordinators for implementation of plans and programmes. The Inter-Ministerial Council will also be responsible for liaising with the Regional body (at the level of CARICOM), responsible for the coordination of food and nutrition security related interventions in various member states. The involvement of a co-ordinating body at the level of CARICOM is seen as important for a number of reasons. Firstly, from the point of view of the sharing of 'best practices', both at the technical and administrative level, thereby optimising the use of scarce resources at the country level. A Regional body could also be a key player in the mobilisation of external resources and funding needed for the implementation of regional initiatives. The development of critical links required to facilitate the further development of intra-regional trade and other bilateral and multilateral relationships is also seen as function of the Food and Nutrition Security Forum at the level of CARICOM.

Stakeholders from public sector, private sector, civil society and the donor community will constitute a National Food and Nutrition Security Forum (NFSF). The forum will provide strategic information and assistance on both policy and programme dimensions of achieving food and nutrition security. It will also recommend standards and policy options.

A National Technical Coordinating Unit (NTCU) will be responsible for coordination, promotion and implementation of the Food and Nutrition Security strategy across the public and private sector in Guyana. The membership will be the Technical Officers (TOs) within the Ministries with responsibility for the implementation of food and nutrition security related activities. The leadership will be provided by the Ministry of Agriculture Technician responsible for Food Security Initiatives. The Unit will facilitate the work of the TOs who will be providing technical support for the implementation of specific programmes related to the food and nutrition security.

Regional and Community Food and Nutrition Security Forums (CFNSF) will be constituted by stakeholders from government, private sector, civil society and the donor community at each of the ten administrative regions of Guyana. The major role of the leaders of the CFNSF, Community Coordinators (CC) will be to prioritize projects related to food security and facilitate food security project coordination, identification, management and evaluation.

Monitoring and Evaluation

A monitoring and evaluation (M&E) system is critical in order to provide a basis for the analysis of the impact of proposed programmes and actions on Food and Nutrition Security and to contribute to the development of more appropriate and relevant policy, and to stimulate the continued involvement of civil society in the programme.

To this end it is necessary to establish regional and national structures to provide an organizational framework for widespread stakeholder involvement in monitoring and evaluation. One of the mandates of the Food and Nutrition Security Council would be to establish and implement an appropriate system for Monitoring and Evaluation. Such a system should include the determining of relevant indicators to be used to provide key benchmarks on the progress of the implementation of the National Food and Nutrition Strategy. The M&E system should include regular surveys, focus group discussions and other

investigative at all levels in order to solicit the opinion and guidance of all stakeholders, including the public and private sectors and civic society.

The implementing Framework for the Guyana Food and Nutrition Security Strategy is attached as an Annex to this Document.