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**THE FOOD AVAILABILITY AND CONSUMPTION PROGRAMME
OF CFNI: PERSPECTIVES TO THE YEAR 2000**

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EXECUTIVE SUMMARY

Food availability and consumption continues to be a major problem for several Caribbean households despite generally adequate food supplies at the national level. The problem is one of maldistribution among different socio-economic groups. This maldistribution is reflected in the nutrition-related problems of protein-energy malnutrition on the one hand and obesity on the other. Another distressing feature is the high degree of import dependence on food supplies.

Ensuring adequate supplies of safe, wholesome and nutritious foods at all times to all segments of the population requires efforts on the part of Government and agencies to increase domestic food production and improve the purchasing power of the poor while educating consumers to make sound food and nutrition choices.

The food availability and consumption programme of CFNI focuses on a series of activities in the areas of policies and plans, training, research and information systems development through mobilising the necessary resources for their conduct.

Through direct consultancy, support will be provided in the execution of all aspects of the food and nutrition planning process. The technical cooperation will be conducted through the appropriate mechanisms existing in the member countries for food and nutrition planning. The development of multisectoral food and nutrition coordinating mechanisms will be promoted.

Support will be provided to Caribbean Universities in the design and conduct of courses involving food and nutrition planning. In collaboration with the University of the West Indies, a short course in Food and Nutrition Planning will be mounted as a Summer Course to enhance the capability of Government officers involved in food and nutrition planning activities.

Research will be conducted in such areas as:

- (a) The interrelationships among factors affecting food production, distribution and consumption.

- (b) Development of operational intersectoral food and nutrition surveillance systems.
- (c) Determination of factors influencing nutritional sufficiency at the household level.
- (d) Assessment of intra-family food distribution and associated factors.
- (e) The cost effectiveness and impact of food aid programmes.

The development of appropriate data bases for food and nutrition planning and coordination will be closely linked to the activities in food and nutrition surveillance systems. The collection, analysis and dissemination of nutrient-cost data will be the hub of the information dissemination activities.

These activities will be conducted in collaboration with the member States and their institutions including CARICOM and other national, regional and international agencies.

THE FOOD AVAILABILITY AND CONSUMPTION PROGRAMME OF CFNI:
PERSPECTIVES TO THE YEAR 2000

INTRODUCTION

The inseparable link between food, nutrition and health is becoming increasingly recognised as pivotal in the development process. The concept of health enshrined in the WHO Constitution is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity. Satisfactory nutrition is a pre-condition for the attainment and maintenance of good health and is in turn achieved by the consumption of optimal amounts of safe, wholesome and nutritious foods.

The role of food, nutrition and health in the development process is often underestimated. Adequate food supply and good nutrition and health status are desirable development goals. Employment opportunities, increased productivity, learning and skills acquisition, education in health care costs and stress as well as foreign exchange earnings are facilitated by appropriate activities in the food, nutrition and health sectors.

During the past 21 years, CFNI, in collaboration with its member Governments, regional and national institutions and international agencies, has worked assiduously towards improving the food, nutrition and health situation in all member countries.

Malnutrition, particularly in children under five years, has declined and food supplies have improved. Despite these successes, food and nutrition-related health problems continue to cast dark shadows on the development landscape. The problems centre on the high import content of the food supply given the precarious nature of Caribbean countries in respect of foreign exchange availability; the maldistribution of the food supply between geographic areas, socioeconomic groups and within households; the persistence of pockets of undernutrition; and the high prevalence of anaemia, obesity, diabetes, hypertension and cardiovascular diseases.

The perspectives to the year 2000 focus on the activities of the food availability and consumption component to complement those of the Nutrition Promotion and Protection component as part of an overall strategy to redress these problems identified above. The perspectives to the year 2000 are based on a careful analysis of the changing trends in food, nutrition and health and the socioeconomic conditions of the member countries. In addition, the human resources to address undesirable trends are assessed as well as the institutional support to redress shortcomings in manpower resources.

2. SITUATIONAL ANALYSIS

2.1. Socioeconomic Setting

The countries of the Commonwealth Caribbean served by CFNI* have a total population of just over six million. The population is relatively young. Persons under 15 years old comprise at least 30% of the total in most of the countries. Women of child-bearing age (15-44 years) represent approximately 20%, while the proportion of the elderly (over 65 years) is increasing, particularly in Montserrat where it now stands at 13% of the country's total population.

Current birth rates range from 14 to 36 per 1000 population, while crude death rates range from 4 to 13 per 1000, with infant mortality rates averaging 21 per 1000 and ranging from 5.0 to 38.0 per 1000 (Table 1). Perinatal factors are ranked first among the principal causes of deaths among infants. In the general adult population, chronic non-communicable diseases, including cancer, cerebrovascular disease, heart disease, diabetes mellitus and hypertension are leading causes of morbidity and mortality (Table 2).

*The countries of the Commonwealth Caribbean served by CFNI are member-countries of the Caribbean Common Market (CARICOM) - Antigua & Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Christopher & Nevis, Saint Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago, Anguilla, the British Virgin Islands, the Cayman Islands and the Turks & Caicos Islands.

TABLE 1: Demographic Characteristics of CFNI Member-countries
Circa 1986

COUNTRY	Population '000	Crude Birth Rate Per '000	Death Rate Per '000	Infant Mortality Rate Per '000
Anguilla (1985)	6.9	25.5	10.4	22.7
Antigua and Barbuda	76.3	14.8	5.0	11.5
Bahamas	235.0	22.9	5.1	22.5
Barbados	253.5	16.1	8.2	10.8
Belize	171.0	36.4	4.6	24.6
British Virgin Is.	12.0	17.7	4.3*	23.5
Cayman Islands	21.0	16.7	6.0	11.1
Dominica	77.4	21.4	5.9	18.8
Grenada	94.0	32.5	7.8	15.9
Guyana	756.1	20.4	—	38.0
Jamaica	3360.0	28.8*	5.5	26.5
Montserrat	11.9	17.2	9.8	5.0
Saint Lucia	139.5	29.4	6.0	21.5
St. Christopher/Nevis	43.7	23.3	10.0	36.3
St. Vincent/Grenadines	110.2	24.3	5.9	24.7
Trinidad and Tobago	1217.1			15.9
Turks and Caicos Is.	8.3	32.7	9.7	32.3

* 1983

Source: Statistical Reports; Ministries of Health Statistics.

TABLE 2: First Five Principal Causes of Death in the English-Speaking Caribbean 1975-1979 (Rates per 100,000 Population) All Ages, And Its Comparison With Two North American, and One Central One South American Country

Antigua 1978	CVD 97.3	DH 86.5	MN 75.7	CPM 37.8	DM 27.1
Bahamas 1979	DH 72.8	MN 70.5	ACC 59.8	I&P 56.7	CPM 46.2
Barbados 1978	DH 173.5	MN 129.7	CVD 112.4	I&P 65.2	DM 42.6
Belize 1975	DH 79.3	EDD 62.1	MN 39.3	CPM 31.4	I&P 27.1
Dominica 1978	DH 121.8	MN 66.4	CVD 39.4	CPM 29.5	EDD 20.9
Grenada 1978	DH 163.6	CVE 63.6	MN 60.0	I&P 43.6	EDD 34.5
Guyana 1977	DH 125.2	CVD 83.5	ACC 61.6	EDD 58.9	CPM 50.5
Montserrat 1979	CVD 181.8	DH 172.7	MN 118.2	DM 81.8	I&P 63.6
St. Kitts/Nevis 1978	DH 190.1	CVD 181.8	MN 80.8	I&P 62.0	AND 47.5
Saint Lucia 1978	DR 111.7	CVD 95.0	I&P 52.5	MN 32.5	CPM 26.7
St. Vincent 1978	DH 148.1	CPM 52.9	MN 45.9	EDD 32.6	DM 30.0
Suriname 1978	DH 108.0	CPM 70.3	MN 43.3	ACC 42.8	I&P 29.7
Trinidad & Tobago 1977	DH 162.3	CVD 82.0	MA 60.2	DM 48.6	ACC 44.2
Canada 1978	DH 247.3	MN 158.3	CVD 64.9	ACC 51.2	I&P 21.8
U.S.A. 1978	DH 330.9	MN 178.7	CVD 79.1	ACC 49.4	I&P 26.3
Ecuador 1978	EDD 87.2	DH 61.8	ACC 58.4	I&P 58.5	BEA 45.3
Guatemala 1978	EDD 165.8	I&P 134.5	CPM 87.6	ACC 62.2	DH 35.2

Source: D. Sinha, "Obesity and Related Diseases in the Caribbean, CAJANUS, 17 (2), 1984, p. 90.

In terms of economic development, the per capita annual level of income range from EC\$1,400 to EC\$17,600 (EC\$1.00 = US\$0.37) and its distribution within the countries is generally highly skewed. Levels of unemployment are high, averaging 20% of the labour force. In general, the economies reveal the classical features of the plantation type, with an emphasis on the production of agricultural products mainly for extra-regional export, and the importation of finished goods including food and other basic essentials. Some diversification of the economies into tourism, bauxite-alumina, light manufacturing, service industries and petro-chemicals, have taken place in recent years, but apart from a few notable exceptions, for example, the Cayman Islands, the agricultural sector remains the largest single employer of labour in the countries.

With this narrow economic base, the recent global recession has had a profound negative impact on the economies of the countries, particularly those with large external debts. There has been a general reduction in the rates of growth of the economies, with some even experiencing negative growth. As a consequence, the countries have been forced to adopt a number of policy measures designed to achieve desirable long-term structural adjustments of their economies. These measures have included control of foreign exchange, import restrictions, devaluations, credit restrictions, divestment of some public sector entities, the removal of subsidies, and general reductions in public sector budgets, employment and services. The short-term effects of these measures, however, have generally been to dramatically increase the rates of inflation and the level of unemployment with important implications particularly for household food availability and nutritional status.

2.2. Food and Nutrition Status

Available data reveal that national food energy supplies vary from being about equal to average recommended allowances, to being about 35% above, with protein supplies well above requirements (Table 3). Average recommended allowances for the populations of the Region are 2250 kilocalories of energy and 43 grams of protein per person per day (Gurney, 1975). The comparative figures for Trinidad and Tobago based on the 1980 census data were 2220 kilocalories of energy and 41 grams of protein. The existence of protein

**TABLE 3: National Food Availability and Prevalence of Malnutrition
in Children Under Five Years in CFNI Member Countries**

COUNTRY	1975	Kcal/Person/Day '81-'82 Average	% Births <2500	% <Standard Weight for Age
Anguilla	-	-	-	-
Antigua and Barbuda	2036	2065	5.9 ('84)	7.7 (1984)
Bahamas	2293	2489	6.9 ('81)	-
Barbados	3047	3104	16.0 ('81)	8.8 (1981)
Belize	2510	2713	-	6.0
British Virgin Is.	-	-	0.5 ('84)	5.9 (1984)
Cayman Islands	-	-	8.7 ('79)	2.2 (1979)
Dominica	2093	2217	10.0 ('82)	4.4
Grenada	2099	2447 ¹	-	-
Guyana	2431	2552 ²	18.4 ('83)	24.5 (1986)
Jamaica	2662	2585	13.0 ('84)	14.6 (1985)
Montserrat	-	-	6.6 ('84)	7.0 (1985)
Saint Lucia	2166	2426	8.6 ('84)	8.0 (1985)
St. Christopher/Nevis	2201	2239	4.4 ('84)	23.0 (1985)
St. Vincent/Grenadines	2281	2388	7.6 ('84)	11.0 (1985)
Trinidad and Tobago	2686	3006	10.2 ('81)	6.0 (1985)
Turks and Caicos Is.	-	-	-	-

Sources: FAO

¹1986 - Food and Nutrition Council (Grenada);

²1984 - CFNI: Ministries of Health

energy malnutrition, side by side with obesity between and within households points unmistakably to the maldistribution of the available food.

The Region is heavily dependent on imported food. In Trinidad and Tobago, for example, the domestic contribution to total energy availability decreased from 50% in 1970 to 23% in 1985 while domestic contribution to protein availability declined from 26% to 17% during that period. The situation is highlighted in Tables 4 and 5.

The food import bill for 1984 was EC\$2.2 billion, while food export amounted to only EC\$1.1 billion, resulting in a negative EC\$1.1 billion food trade balance. In addition, with the continuing shortage of foreign exchange, several countries of the region have become increasingly dependent on food-aid supplies to supplement their commercial food imports.

Trends in the retail price for food were generally upward but rates were higher among the larger CARICOM States (Table 6).

Protein-energy malnutrition in young children remains a public health problem, although there has been a marked improvement during the past 25 years. Persistent pockets of malnutrition exist among children under five years (Sinha, 1986). In addition, the nutritional status of pregnant women is often poor so that between 9% and 15% of newborns weigh less than 2500 g (Table 3). Anaemia is found in all countries and affects mostly pre-school age children and pregnant and lactating women with the most common cause being iron deficiency due to an inadequate dietary intake and low absorption.

Obesity is found mainly among adult women, with prevalence rates in 1965-1971 ranging from 24-39%, with subsequent surveys revealing rates as high as 50%. Obesity is implicated in the high prevalence of diabetes, hypertension and cardiovascular disease with the prevalence of hypertension and diabetes in adults estimated at 18-22% and 6-12% respectively.

2.3. Education Infrastructure and Training

The system of education and current institutional infrastructure do not focus sufficiently on food and nutrition as important pursuits. Several secondary schools emphasize food and nutrition in the lower forms only, and particularly for girls. At University level the subject is included as an input into other

**TABLE 4: Agriculture Sector Contribution to Gross Domestic Product
for Selected Caribbean Countries in \$M Local Currencies
1985**

COUNTRY	GDP	Agriculture	Agriculture % GDP
Antigua and Barbuda 1985	409.2	23.2	5.7
Barbados 1985	2240.0	160.0	7.1
Belize 1985	327.0	65.0	19.1
Dominica 1985	219.9	62.6	29.3
Grenada 1985	259.5	44.3	17.1
Guyana 1985	1630.0	439.0	26.9
Jamaica 1985	11024.8	655.7	5.9
Montserrat 1985	90.7	4.3	4.7
St. Christopher/ Nevis 1984	146.6	23.8	16.2
Saint Lucia	388.8	58.3	15.0
St. Vincent 1984	219.6	38.2	17.4
Trinidad and	18973.0	653.0	3.4

Source: UN-ECLAC, Agricultural Statistics, Vol. VII, 1986.

**TABLE 5: Trends in Food Imports for Selected Caribbean Countries
in \$M Local Currencies 1980-1986**

COUNTRY	1980	1981	1982	1983	1984	1985
Antigua and Barbuda	-	56.8	59.3	53.9	69.8	-
Bahamas	126.2	0.9	147.8	131.2	148.6	154.2
Barbados	155.1	169.0	153.1	148.7	159.7	147.9
						('86) 149.7
Belize	65.7	79.9	58.8	46.8	56.0	61.1
Dominica	25.7	29.6	30.0	27.0	32.4	-
Grenada	39.2	41.4	41.9	35.4	42.9	46.4
					('86) 50.1	
Jamaica (US\$)	197.6	228.3	218.6	197.4	195.6	167.2
Montserrat	9.3	10.0	10.1	-	-	-
St. Christopher/ Nevis	23.1	25.1	23.1	25.4	-	-
Saint Lucia	-	-	-	65.5	67.0	73.5 ²
Trinidad and Tobago	707.8	834.7	904.7	929.8	894.1	764.1

Source: UN-ECLAC Selected Statistical Indicators of Caribbean Countries, October 1987. Grenada Food and Nutrition Council.

TABLE 6: Trends in Food Retail Prices for Selected Caribbean Countries

COUNTRY	Base = 100	1980	1981	1982	1983	1984	1985	1986
Bahamas	Nov/Dec 1971	212.5	244.0	260.5	264.1	268.6	283.1	307.4
Barbados	March 1980	103.9	118.6	130.8	137.7	144.1	149.7	-
Dominica (CPI)	July 1984	80.0	90.6	94.6	98.6	100.7	103.2	105.5
Grenada	January 1979	134.8	163.9	172.4	182.2	190.4	190.8	-
Guyana	1970	-	-	538.4	650.8	867.4	1043.2	1134.0
Saint Lucia	April 1964	507.0	603.4	621.5	625.4	624.7	-	-
Trinidad and Tobago	September 1982	-	-	-	121.5	135.6	144.9	160.2

Source: UN-ECLAC Selected Statistical Indicators of Caribbean Countries (1987); Reports of Statistical Offices.

programmes or as a graduate programme, e.g., Nutrition at TMRU. The absence of a Bachelor's programme in Home Economics, Nutrition and Dietetics is testimony of the priority afforded the subjects. As a consequence, the human resource base in food and nutrition in a Caribbean context remains low - a situation that must be remedied if rapid advances are to be made.

3. PARTICULAR ISSUES IN FOOD AVAILABILITY AND CONSUMPTION

3.1. Food and Nutrition Security

The heavy dependence of the Region on imported food supplies and an increasing reliance on food-aid, have combined to bring into sharp focus issues relating to food and nutrition security in the countries. Food and nutrition security refers to the capability of the food supply and distribution system in ensuring at all times adequate supplies of safe, wholesome and nutritious foods to all segments of the population. Several factors impinge on food and nutrition security. The interrelationships of these factors are depicted in Figure I. The goal of food and nutrition security with a great deal of self-reliance underpins the food availability and consumption component.

• Maximising Nutrient Supplies from Domestic Production

The major constraints to investment in domestic food production are (a) the persistence of the plantation structure which alienates land and other resources from farmers; (b) lack of and/or inappropriate application of incentive and support systems and (c) the high production costs and general uncompetitiveness of domestic food production vis-a-vis imports.

Efforts to increase domestic food production and consumption must address the extent to which these constraints could be progressively eliminated. The data on which to make modifications in the existing arrangements must be collected, and analysed. Firm conclusions and recommendations must be promoted at the highest decision-making level to ensure their adoption.

• Food Aid

With the continuing balance of payment problems, food-aid, if available, will continue to play an important role in the supplies of food to the Region. In this context, it will be useful to do an evaluation of the programmes with a view to enhancing the efficiency and effectiveness of the programmes. Food

FIGURE 1: Food and Nutrition Interrelationships

FOOD FLOWS	ASSOCIATED FACTORS	POLICY ISSUES
NATIONAL FOOD AVAILABILITY (NFA) ↓	Imports (World Food Prices, Foreign Exchange Availability) Local Production (land, labour, capital management production and distribution policies) Export (foreign exchange earnings)	Export/Import levels including food aid Farm Size and Tenure Incentives and support system including Agricultural Extension Exchange rates
HOUSEHOLD FOOD AVAILABILITY (HFA) ↓	Incomes and Prices Home Food Production Breastmilk	Food Prices and Subsidies Promotion of Home Food Production Promotion of Breastfeeding Supplementary Foods
INDIVIDUAL FOOD ALLOCATION (IFA) ↓	Social Custom Nutrition Education (Knowledge and Behaviour)	Change in lifestyles Nutrition Education
INDIVIDUAL FOOD CONSUMPTION (IFC) ↓	Health Status Time Allocation for Feeding	Environmental Health Immunization Leave Benefits
INDIVIDUAL BIOLOGICAL UTILIZATION (IBU) ↓	Diet Composition Parasitism Infection	Public Education Public Education Dietary Guidelines
INDIVIDUAL NUTRITION STATUS (INS)	Undernutrition (PEM, Anaemia) Normal Overnutrition (obesity, diabetes, hypertension, cardiovascular disease)	Curative Intervention Programmes (supplementary feeding, exercise, dieting, essential drugs)

Source: C. McIntosh "Markets, Prices and Nutrition: Exploring the Interrelationships," CAJANUS (In Press).

aid, however, have both negative and positive effects. While undoubtedly it cannot be faulted in emergency situations, the availability of food-aid on a regular basis may distort markets and serve as a disincentive to local production. This begins a train of events, which culminates in depressed rural areas and expanding urban slums. The impact of food aid programmes in the food sector must be meticulously assessed so that appropriate steps could be taken to minimise negative effects or to phase out such programmes.

• Food Safety and Protection

Several problems arise from a lack of concern for food safety and protection. The increasing and often indiscriminate use of pesticides in agricultural production and trade in the Region pose serious threats to the population. The overall sanitation and quality control in food processing, storage and food preparation environments are sometimes below standards acceptable for good health. The threat posed by unclear radiation in food and the environmental pollution by toxic, hazardous waste requires attention. Food safety and protection remains a critical issue within the food availability and consumption component.

• Food Marketing

The bulk of the food consumed in the Region is imported (Guyana excepted). Not surprisingly, the import food distribution system dominates the sector and consists of few importers/wholesalers and supermarkets and a large number of small shops. Under such conditions market power in respect of pricing is likely to be concentrated among the few importers/wholesalers and supermarkets. Locally-produced foods are distributed primarily by a large number of highly competitive market vendors (hucksters, higglers and butchers). Some fruits and vegetables are distributed through supermarkets. Thus, while the market for locally-produced foodstuffs exhibit all the features of the perfectly competitive model - many buyers and sellers, freedom of entry and exit, product similarity and free information flows - the market for imported food tends towards oligopoly and monopoly at the importer/wholesaler level. The superior bargaining power of such firms is reflected not only in higher prices but in influencing policy directions regarding food imports.

Price controls are in effect for a number of basic food items, but generally

free market pricing prevails. Price controls, though applied to ensure availability of foodstuffs at low prices may have the negative effects of reducing availability, encouraging hoarding and illicit pricing. Given the highly competitive nature of domestic food production, the application of price control could be questioned. The methods of price control (percentage mark-up versus dollar mark-up) have differing effects on price levels and food import/production response. The development of appropriate pricing strategies requires careful analysis of the interplay of forces in determining price levels. Generally, local foodstuffs have not been competitive with imports. The reasons for this situation need to be elucidated and policies and programmes adopted to improve competitiveness to encourage greater consumption.

• Food Expenditure and Consumption

Household income is allocated among competing goods and services. Food expenditure accounts for a large proportion of the consumer budget and determines consumers' capacity to procure basic nutrient requirements. An understanding of the dynamic forces determining household behaviour in respect of food choices under varying incomes and prices (e.g., price and income elasticities) would have important policy implications. Food consumption patterns and intra-family food distribution are also important areas where gaps in the information base exist.

3.2. Food and Nutrition Planning and Coordination

Many countries are incorporating nutrition in development planning and many have developed or are developing food and nutrition policies. Intersectoral coordination in the planning and implementation of programmes is fundamental to their success. The need for such coordination is being increasingly recognised. However, achieving coordination poses serious operational problems. This difficulty was well articulated by a former Minister of Education, Health and Social Affairs, St. Kitts/Nevis as follows:

"The most difficult problem has been, not the absence of plans or policies or programmes, not the absence of goodwill, but a very strange difficulty in getting people within the same Ministry to work together for a common programme and a common project ... I sometimes

believe it is the inherited system which tends to be a lot more vertical rather than horizontal, so that various officials are very sensitive to the vertical responsibilities to their Permanent Secretaries, Ministers, and so on, and not to the broader horizontal responsibilities of the problem or the project".¹

The development of appropriate mechanisms and methods for achieving coordination must be further explored. Intersectoral mechanisms need support in their efforts to (a) sensitize policy-makers and the population of the crucial food and nutrition issues; (b) establish and maintain adequate food and nutrition surveillance; and (c) plan, implement, coordinate and evaluate food and nutrition programmes.

4. STRATEGIC APPROACHES

The description of the particular issues in the area of food availability and consumption provides the backdrop for the presentation of the strategic approaches being adopted. The overall objective is to ensure the availability and accessibility of food to each individual at a level sufficient to meet their nutrient requirement with a high degree of self-reliance. This is an objective which is shared by Governments and their agencies, international agencies and institutions as well as the Caribbean Food and Nutrition Institute. The contribution to this objective by the Food Availability and Consumption component lies in:

- . improving the regional human resource capability to analyse and solve food and nutrition problems;
- . improving the data base for analysing, planning and evaluating food and nutrition programmes;
- . creating public awareness of the food and nutrition problems and methods for their solution;

¹ Hon. F.C. Bryant quoted in Report on the Workshop in Food and Economics and Food and Nutrition Policy, St. Kitts, 1977, p. 11 (CFNI, Jamaica).

- developing and promoting approaches for intersectoral food and nutrition planning and coordination;
- conducting applied research and promoting conclusions and recommendations based on research findings;
- establishing institutional linkages in promoting food and nutrition at the regional and international levels.

The strategic approaches being adopted in contributing to the above objectives include resources mobilisation, policies and plans, training, direct consultancy and information systems development.

4.1. Resource Mobilization

The food availability and consumption programme has had an excellent track record in mobilising financial, political, institutional, informational, physical and human resources. The workshop series in Food Economics and Food and Nutrition Planning was financed by the Ford Foundation and was effective in sensitizing politicians, senior Government personnel, technocrats, doctors and University Professors and Lecturers, of the crucial role of food and nutrition in the development process. The actual implementation of the series was a collaborative effort among these persons and their respective institutions. Some 96 persons benefited from this series. The success of the series could be measured by the several Governments that include food and nutrition consideration in their development plans. At the regional level the Regional Food and Nutrition Strategy was developed using similar resource mobilization techniques with immeasurable success.

At the national level, efforts have emphasized the establishment of food and nutrition coordinating mechanisms as the focal points for resource mobilization and programme implementation. Success in this area has been sporadic depending on the priority afforded food and nutrition by the administration.

The thrust towards the institutionalization of food and nutrition coordinating mechanisms has only recently been given priority with the convening of a Technical Group Meeting in 1978 when Guidelines for the establishment and functioning of these mechanisms were developed. Support to such mechanisms has not been sustained and with the passage of time several persons who were trained

to play a significant role in establishing and managing these mechanisms have moved to other endeavours - not excluding becoming staff members of FAO and PAHO.

The mobilization of resources for improving food availability and consumption will continue to facilitate the development, implementation and evaluation of policies, plans and programmes, research, training and information dissemination. Experiences in mobilising resources in the conduct of activities will be documented and published. Some efforts in their direction have been made; but these will increase in the years ahead. The emphasis then is on expanding the efforts in resource mobilisation and documenting the experiences.

4.2. Policies and Plans

Reference has already been made of the food availability and consumption programme of CFNI in the development, implementation and evaluation of food and nutrition policies and programme at the national and regional levels. The problem is not one of absence of policies as much as the lack of translation of these policies into plans, their coordinated implementation, and evaluation. The methodology for policy development has been well-established although several persons charged with this development lack hands-on skills. It is in the areas of project plans, implementation, and evaluation that problems are encountered. The solutions to these problems lie in research and training. Until the technical officers in Governments develop the capability of executing all aspects of the food and nutrition planning process, the food availability and consumption programme will continue to support and facilitate the development, implementation and evaluation of food and nutrition policies and programmes through direct consultancy as has been done in the case of Dominica, Antigua, St. Vincent and Grenada and is being done in Guyana and Trinidad and Tobago.

4.3. Training

Food availability and consumption analysis has been undertaken primarily by CFNI and the University of the West Indies. Food Balance Sheets (FBS) have been developed by member countries with assistance of FAO or CFNI. Training in the computation of FBS was conducted by CFNI in the early '70s, but there has not been consistent follow-up. The short-lived UNU-supported post-graduate training programme in Food and Nutrition Studies with emphasis on Food Availability, Food

Conservation and Human Nutrition in the early '80s had little impact because of lack of continuity and its international emphasis. The Department of Agricultural Economics and Farm Management occasionally has students doing Theses on Food Consumption Interrelationships; but the area remains largely unexplored.

The conduct of a two-unit elective in Human Nutrition and Food Planning for B.Sc. students in Agriculture and Natural Sciences has attracted many students in the field and encouraged post-graduate follow-up. Graduates from this programme and from follow-up programmes have been contributing to teaching, research, management and food and nutrition planning activities in their home countries. The conduct of this programme has been supported by CFNI staff. The institutional linkages developed with the University of the West Indies through this programme are mutually beneficial as important interrelationships between food supply, consumption and nutrition are discovered through the research projects. There have been requests by students for a follow-up Course in Food and Nutrition. Support to the University of the West Indies (UWI) in the conduct of the Course will continue to be recognized as an ongoing activity within both the Food Availability and Consumption and Nutrition Promotion and Protection Programme components of CFNI.

Improving the human resource capability to address problems in food availability and consumption will be achieved by mounting every two years a short course (three months) in Food and Nutrition Planning. The Course will focus on the assessment of food and nutrition problems at the national and community levels and coordinated approaches to their solution. Assessment techniques will include Food Balance Sheets, Food Expenditure and Consumption Analysis, Anthropometry and Clinical and Biochemical Methods. Time will be devoted to the actual computation of FBS and training in analytic techniques applied to consumption analysis.

Basic steps in the formulation of food and nutrition policies, development of projects and action plans, plans on implementation evaluation and revision will be emphasized in the Course. Coordination of food and nutrition programmes and the development of appropriate coordinating mechanisms will form a major component of the Course.

The participants in this programme (15-20 persons per Course) will be Government nominees or other interested persons (once the costs for these persons are met) who function in the area of food and nutrition planning.

The Course will be conducted in collaboration with the UWI to facilitate its accreditation, access to library facilities, classrooms and lecturers. Location may alternate between the Jamaica and Trinidad Centres to balance opportunities for the most populous countries and the Western and Eastern Caribbean. The Course programme should be detailed with the help of an STC. The first Course could be held in St. Augustine, during the Summer of 1989. This would be in keeping with the institution of summer school programmes on the St. Augustine Campus.

4.4. Research

The 1983 Scientific Advisory Committee (SAC) Meeting endorsed the incorporation of Food Marketing and Consumption Analysis as important areas of CFNI research work. This research area was actively pursued in Antigua and St. Vincent and the Grenadines through an analysis of the food systems in the two States, with particular emphasis on food production, marketing and consumption.

In collaboration with the Department of Agricultural Economics and Farm Management of the University of the West Indies, this area of research will be extended to other member countries. The information gained from the analysis of the complex interrelationships among factors affecting production, distribution and consumption will facilitate the food and nutrition planning process.

The area of Food and Nutrition Surveillance is closely related to Food Availability, Distribution and Consumption. The current system being developed to monitor food prices on a weekly basis and applying the nutrient-cost concept and multimix principle to select economical diets in Trinidad will be evaluated. If the evaluation is positive the system will be extended to all member States. Comparison between the Food Price Index over the long term could have been useful policy implications. Research into the development of workable systems of food and nutrition surveillance system will continue to facilitate their adoption in all member countries.

Both Jamaica and Trinidad and Tobago conduct periodically household budgetary surveys which contain useful information on food expenditures by various household classes and socioeconomic circumstances by type of food purchased. Given the prices which are regularly collected by the Statistical Institute (Jamaica) and the Central Statistical Office (Trinidad and Tobago), quantities could be estimated and nutrient adequacy by household size and socioeconomic characteristics. Income and price elasticities could also be estimated from the data. These approaches will be adopted in assessing the factors influencing nutritional sufficiency at the household level. The issue of intra-family food distribution will be addressed by collaborating with Statistical Departments to include in household budgetary surveys, simple techniques (e.g., 24-hour recall) for relevant data collection. Such a project is being initiated in Dominica.

In respect of food aid, research activities will focus the cost-effectiveness of programmes as well as the impact of such programmes in the food production distribution sector.

4.5. Information Systems

In collaboration with member countries, efforts will continue to develop data bases for food and nutrition planning and coordination through food and nutrition surveillance incorporating nutrient-cost data. These data along with food and nutrition data collected by other agencies will be analysed and incorporated into status reports on member countries as has been done in the past for Antigua and Barbuda, Montserrat, Belize and Guyana.

Based on the collection and analysis of food prices, economical nutrient sources for well-balanced meals will be promoted through the print and electronic media in the member countries. Nutrient-cost indices will be computed to assess trends in the cost of economical diets. These, when compared with income levels of the lower economic strata will indicate the ability of these groups to meet their nutrient requirements.