DOMINICA

PLAN OF ACTION FOR THE
JOINT WHO/UNICEF NUTRITION SUPPORT PROGRAMME

prepared by

The Ministry of Health

with technical assistance from

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PART I

BASIC INFORMATION

1. INTRODUCTION

The Commonwealth of Dominica lies at the northern end of the windward group of the Lesser Antilles, between Guadeloupe on the North and Martinique to the South (both French Overseas Provinces). It is the largest of the Lesser Antilles with a total land area of approximately 298 square miles.

Soils are volcanic in origin, rich but porous and unstable. It is dominated by high mountain ranges running the length of the island, west of centre with two lateral spurs at both ends, all of which account for its characteristically rugged scenery. Morne Diablotin (4,747) is the highest peak in the central area.

The Commonwealth of Dominica is an independent country (independence was obtained on November 3, 1978) and maintains a Westminister type of Parliamentary Government within the British Commonwealth. It remains primarily an agricultural based society. The available flat land or land of moderate slopes, suitable for building purposes and cultivation is located mostly in the coastal areas. This explains the predominant coastal settlement pattern of the island where about 90% of the population live. Approximately sixty percent of the population has historically lived on the Leeward (west) side of the island where the two major towns, Roseau and Portsmouth are situated.

The 1981 estimated population was 74,089 with approximately 30,000 inhabitants in Roseau, the main administrative commercial centre, and 11,000 in Portsmouth. The population distribution by age shows that 11 percent is under 4 years of age and 30 percent is in the 5 - 14 age group. Mothers and children comprise 65 percent of the population.

The GDP for 1981 reached EC$93 million (about US$450 per capita) after a decline which was mainly due to the effects of hurricanes David, Frederick and Allen which swept the island in 1979 and 1980. In the area of public finance, Dominica has registered a persistent budget deficit, which has tended to decrease during the last two years, standing at EC$5.7 million for 1981/82. Because of the basic budgetary problems, financing of capital development can

only come from external sources. Thus, for the financial year 1980/81, out of a total of EC$49.1 million of capital expenditure, 27.2 million were expected to come from grant funds, 21 million from loans and EC$0.8 million from local revenue.

Agriculture is the mainstay of Dominica's economy, contributing 40 per cent of the GDP, and is the most important source of employment. Manufacturing and tourism together contribute five per cent of the GDP.

Less than 50 per cent of all arable land in Dominica is under cultivation and yields are generally low. Bananas and citrus are the chief export crops and the country shows a heavy dependence on extra-regional sources of food to supply the staples. Imports include legumes, cereals, sugar and sugar products, fish and salted meats, dairy products, canned, salted and frozen fish. Food distribution is a problem in Dominica. The transportation of produce from the plantations, which are mainly situated in the windward side of the island, to the main distribution centres in Roseau and Portsmouth still poses considerable problems. Lack of storage, particularly refrigerated storage results in high wastage on imported commodities as well as locally produced seasonal and highly perishable vegetables.

The Agricultural Sector Plan gives the broad guidelines under which the Ministry of Agriculture operates. Efforts are being made to increase the production of export and domestic crops. Projects have been developed and are being implemented to increase production of meat, milk, fish, legumes, fruits and root crops. Measures are also being undertaken to improve storage facilities and the efficiency of marketing institutions.

The International Fund for Agricultural Development (IFAD) provides assistance in the rehabilitation and expansion of small food crop producing farms, livestock producing units and fishing facilities which were damaged by hurricane David. The IFAD project also enables the Government of Dominica to improve the food marketing functions of the Dominica Agricultural Marketing Board (Annex I).

1.1. *Health and Nutritional Status:*

The island registered a crude birth rate of 22.5 in 1981. Twenty six point one per cent of the children were born to women under the age of 20 and the infant mortality rate in 1982 was 18.2/1000 live births. Life expectancy at birth in 1978 was 69 years (males) and 74 years (females). Perinatal mortality accounts for approximately 50 per cent of all foetal and infant mortality.

Protein energy malnutrition (PEM) exists in infants and pre-school children. Approximately 51 per cent of children were found to be suffering from malnutrition (Gomez I: 39%, II: 10% and III: 2%) in 1976. Ten per cent of newborns show birthweights of less than 2,500 g. Malnutrition also exists among pregnant and lactating women, especially teenage mothers. Breastfeeding is widely practised, but many mothers breastfeed for short periods, and the infant is introduced to commercially prepared infant formula. These are expensive and are diluted by many mothers who cannot afford to mix the formula according to the manufacturers' instructions. Weaning is often abrupt as mothers claim they must return to work shortly after delivery. 'Family pot' feeding, using indigenous foods, is practised by many families. Iron and folate deficiency anaemia is prevalent among pregnant and lactating women and children. A 1981 survey of two districts showed that 65.3 per cent and 56.0 per cent of pre-school age children were anaemic. Parasites such as trichuris, ascaris, hookworm and lamblia are commonly found. A CAREC survey of school children in 1979 revealed that 95 per cent of children were infested with one or more parasites. Diarrhoeal disease is a leading cause of late neo-natal and post neo-natal morbidity and mortality. During 1982, 17.1 per cent of children under one year and 9.8 per cent of children one to four years old were admitted to the Princess Margaret Hospital suffering from gastro-enteritis.

Obesity is a major nutritional problem among females (especially in the +40 age group). Diabetes and hypertension are also prevalent. Diabetes is the commonest cause of admission to the adult medical wards and is twice as common in females as in males. Hypertension ranks third as the leading cause of mortality for women and diabetes ranks eighth.

Although Dominica has a fairly accessible natural system of water supply from its 365 rivers, the quality especially during the rainy season, is not always adequate for human consumption. For 20 per cent of the year, the physical quality of the water supplies is unbearable. Eighty-five per cent of the population is served by pipe borne water with 66 per cent of this figure being served potable water treated by means of chlorination. UNICEF is assisting with the improvement of water supply systems for primary schools in rural areas.

An estimated 44 per cent of the population have access to private excreta disposal facilities (septic tanks and deep pit latrines in rural areas) while a large number depend on communal latrines. Approximately 25 per cent of the population have no access to any facility whatsoever and these make use of the open ground and/or the sea.

There is an ongoing programme whereby the Ministry of Health/Ministry of Works produces the pre-cast concrete sections for pit latrines and sells them to householders at subsidised rates. Householders are encouraged to complete construction of and use these facilities. Unfortunately, due to a lack of funds there is a shortfall in the number of units that are produced. The Seventh Day Adventist World Service (SAWS)/USAID programme will provide financial support for this programme in two health districts, namely Grandbay and Marigot, over the next three years.

The Government is the major provider of both preventive and curative services in Dominica. Important decisions were taken in 1980 and 1981 concerning the reorganisation of health services in Dominica. The National Health Plan (1982-87) prepared with assistance of PAHO/WHO, sets out in detail how these decisions will be implemented.

The reorganisation process removed the vertical line of command along which programmes were previously organised and managed and substituted a team approach at all stages and levels. To carry out this new approach to management of the health services, three levels of responsibility and authority have been identified:

(a) policy making level
(b) programme formulation level
(c) programme execution level

Levels (a) and (b) operate on a central basis for the entire island.

The policy-making level is comprised of the Minister of Health, the Permanent Secretary and the Director of Health Services. This level establishes health policy in relation to the directives of the Government and in accordance with overall national development policies.

At the programme formulation level are located specialist staff with island-wide responsibilities for formulating national strategies and programmes, for supervising the implementation of such programmes and for providing the ancillary supportive administrative machinery required by these programmes. The above functions are carried out in consultation with the district health teams which they are expected to serve.

The programme execution level has two major aspects. The first represents the community based activities and the second, institutional based activities. The first is primary care organised, managed and delivered on a decentralised basis. The second is centred on the referral medical care services, to be provided by the Princess Margaret Hospital located in Roseau, but serving the entire island.

The functional organisation of the primary care services is by district and is delivered by a health team assigned to various clinics and a health centre and led by a resident District Medical Officer (D.M.O.) The island is divided into seven health districts, each of which has a series of primary health care units (Type 1 health clinic) and at least one major health centre (Type 111) (See map, Annex II). The Type 1 health clinic is the smallest unit at the peripheral level in the community and represents the first point of contact of the individual with the health system. It delivers services that are closely integrated into the community. Each clinic will be staffed by a Primary Care Nurse (PCN) and will serve a minimum area population of 6000 within a five mile radius.

The Primary Care Nurse, a new category of health worker, is unique to Dominica. The Primary Care Nurses will work mainly in the areas from which they have been selected and are specially trained to deal with the health problems and needs of the community and particularly, the rural population.

The training programme consists of one year general nursing, nine months midwifery exposure and three months internship period. To date three groups of primary care nurses (a total of 62) have been admitted to the Nursing School. The first group, eleven in number, have recently begun serving in the community and preliminary reports are encouraging. 26 have completed the first year of basic nursing and will graduate in 1984. The last batch of 25 trainees started in mid-March of 1983. An in-depth evaluation of the impact of the programme is being planned. This research will evaluate the assignment of 33 newly trained primary care nurses to rural based health clinics in terms of the PCN's technical knowledge and skills and the workers' acceptance by and impact on, the community and health system. This study will guide the Ministry of Health in its planning for manpower development and rural health care delivery.

For every four or five Type 1 clinics, a health centre is provided for the purpose of referral supervision and acting as a supply depot. For the most part, this health centre is a Type 111 facility, however, in at least one instance due to the distance involved and the difficulty of communication, an intermediate of Type 11 facility is provided with more staff than Type 1 facility but less than a Type 111 facility. The Type 111 Health Centres form the administrative headquarters of the district and cater to the population in their vicinity (over 2000) and with the Type 1 clinics generally serve a total population of upwards of 7000. In addition to covering the same functions as carried out by Type 1 health clinics, a Type 111 health centre will provide the following care:

- Limited maternity inpatient services
- Outpatient referral services
- Dental services
- Supervision and support to levels 1 and 11
- Referrals from Types 1 and 11 health centres.

The district medical officer, family nurse practitioner, health visitor, environmental health officer, staff midwife, pharmacist and dental auxiliary are based at the Type 111 centre. To date, all seven Type 111 centres are functional. However, due to the lack of equipment, dental auxiliaries are

not yet based in the rural districts. A school dental programme has been implemented with comprehensive dental care to the seven year old age group at the schools in the Roseau district and an emergency service provided for the rest until more facilities are available. The fluoride rinse programme will be introduced in all schools with emphasis placed on dental health education.

Family Nurse Practitioners (FNP), graduate nurse midwives with at least 3 years experience, have been trained in the PAHO sponsored programme in St. Vincent; two additional FNP's will begin training in 1984. The FNP's are responsible for the implementation of the School Health Programme in primary schools. Children aged 5 - 6 years (school entrants), 7 - 8 years (middle level) and 14 - 15 years (school leavers) are given a physical examination annually and weights and heights are recorded. This programme has begun in six health districts (Marigot, La Plaine, Castle Bruce, St. Joseph, Grand Bay, Roseau). In the Roseau district, all the schools are not yet included.

Effective PHC delivery and integration of services at the community level are being achieved by a team approach. The Ministry of Health regards the operation of a functional team in the district as one of the most important factors contributing to effective delivery of primary health care and the recent reorganisation of the health services provides the decentralisation and delegation of authority, enabling the district health team to respond to community needs.

With this degree of decentralisation it became necessary to ensure that the district health teams' activities conformed to appropriate norms and standards. This has been effected through the introduction of programme manuals combined with adequate supervision. Manuals have been developed for Maternal and Child Health (MCH), Family Planning, Environmental Health and Medical Care (in draft) with the assistance of PAHO/WHO. A revision of the MCH manual will be carried out in 1984.

From early it was realised that additional inservice training would be needed to mould persons from different professional backgrounds into cohesive work teams and develop and strengthen middle level management at district level, in preparation for the implementation of district programming.

The Ministry of Health has, therefore, embarked on a vigorous inservice training programme on supervision and team building.

The implementation of health services programming at district level and a health information system to support it commenced late 1982. This was developed with active PAHO/WHO cooperation. The Health Information system involves more than the usual method of recording health activities; rather, it is a managerial tool for planning, programming and monitoring of health services at all levels.

The first prerequisite for district programming was a definition of the catchment area for each health centre. This delineation, mapping and house numbering and identification of individuals within the catchment area of a health centre has been completed for six of the seven health districts.

The Ministry of Health attached a great deal of importance to involving the community in its Health Development process. It is now well recognized that many aspects of health promotion have to be performed by the population of itself and some of the most important preventive activities can only be or are best performed by the people themselves with full understanding of what they are doing and why. Active participation of the community is needed not only in the form of collaboration in health programmes provided by Government but also as organized efforts to promote their own status of health.

With the above in mind, the Ministry has restructured certain aspects of the service to strengthen the village base and involve communities in taking decisions concerning their own health and playing a greater and more self-reliant role, both in the identification of health problems and finding appropriate and cost effective solutions to them.

Each community is encouraged to form a village Health Committee which should include individuals such as: agricultural workers, school teachers, members of women's associations, community development department plus a

representative of the village council. The committee would be the coordinating link between the health staff and the community, and would provide the mechanisms for successful community mobilisation and organisation, to allow the rural population of the district to take more responsibility for their own health. It is anticipated that the health team will be deeply involved in this development and will assist in defining basic needs. To date, approximately twenty health committees have been formed throughout the island.

1.2. *Education:*

Quantitatively the Dominica educational system is quite impressive for a developing country. At the primary level, fifty-eight Government primary schools are in operation with a total enrolment of approximately 20,000 pupils; there is equal participation of boys and girls and of urban and rural children throughout the system. The percentage of the population of school age (5 to 15 years) not receiving schooling is relatively low, economic conditions being the main cause of non-incorporation.

In addition Dominica has 8 secondary schools, a teacher's college, a technical college and a sixth form programme.

The new Junior Secondary Educational Programme will replace the curriculum of the senior stage of primary schools and will offer a strong programme in vocational skills. The new programme consists of six main groups of vocational training varied according to the needs of the locality in which they are taught (food production, construction, garment production, machine shop welding, arts and crafts services).

An innovative approach to the involvement of the community in the educational system is through a pilot school feeding project. This project, funded by a Dutch organisation, NOVIB of Holland has begun in 7 primary schools in rural areas (Scotts Head, Grandbay, Clifton, Giraudel, Sinecou, Delices and Grand Fond). A committee comprising teachers and other villagers, is responsible for the day-to-day management of the project in each area. Activities include the preparation and service of lunches by parents; the establishment of school gardens incorporating the teaching of farm management techniques and agricultural practices; teaching of nutrition education to increase the awareness of students with respect

to food and nutrition problems; involvement of farmers in the production of food for the project thus boosting local food production and increasing incomes of farming households. Community members are volunteering their labour for the construction of kitchens and water tanks at the project schools; funds for the purchase of building materials were received from the Canadian Mission Administered Fund and UNICEF.

To strengthen nutrition education activities in primary schools, a food and nutrition manual for teachers of infant grades was introduced in January 1982. The use of this manual will be evaluated with a view to assessing its suitability and appropriate modifications will be made. A similar manual will be prepared for the junior and senior grades.

Family Life programmes are promoted largely through UNFPA and IPPF funded projects. A Family Life Education manual has been developed for teachers of infant and junior grades in primary schools and a similar manual will be prepared for the senior grades. Workshops will be conducted for teachers in the use of these educational materials.

The Roseau Youth Centre completed during 1982 and jointly funded by PAHO/WHO and UNFPA is a facility which provides family life education counselling to young people. The Ministry of Health plans to provide general health services to the youths attending the Centre. Similar programmes will be extended to other areas in the island through the establishment of youth clinics.

There is a tremendous drive to provide adult education and literacy programmes for the large group of illiterate and semi-literate urban and rural youths and adults. It is estimated that the illiteracy rate in 1980 amounted to about 30 per cent. This problem is the most onerous when it is borne in mind that a high proportion of the population uses creole as its main language but attendance takes place in educational programmes conducted in English as the official language of instruction. The Government of Dominica attaches a great importance to non-formal adult education. Responsibility for adult literacy and continuing education lies with the Centre for Adult Education a dependency of the Ministry of Education. Forty-five Adult Education Committees have so far been established in a number of villages with responsibility for identifying and for formulating community education programmes.

1.3. *Assistance to Women's Groups:*

Three organisations, the Women's Bureau, the Social Centre and the Canadian Save the Children (CANSAVE) actively encourage income generating activities for women. A wide variety of activities which include straw work, handicraft, sewing, carpentry, food production, solar drying and wine making are conducted.

The Social Centre run by the Social League, a private church-supported organisation, has since 1950 had a keen interest in the nutritional status of the Dominican people. Its motto is "For Better Homes and a Healthier Nation". In January 1978 the Centre embarked on a three-phase three-year food and nutrition programme involving food production, animal rearing and food preservation.

The Centre, through its League districts works directly with women's groups in the community. In January 1981, 5 model areas in each of the five league districts were established. Each model consists of a poultry rearing project, a rabbit rearing project and vegetable production. Models are situated in the following areas:

North	-	Woodford Hill
South	-	Soufriere
East	-	Morne Jaune
North-East	-	Castle Bruce
West	-	Dublanc

There are now 42 groups engaged in the project. The continuing Nutrition Education Project includes monthly recipes, nutrition-related quizzes and demonstrations.

The Social Centre also runs a Day Care Centre, St. Ann's Day Nursery,for approximately 100 children between 3 months and 3 years. Care and feeding daily are given at subsidised cost. Mothers are encouraged to breastfeed their infants before leaving in the morning and at lunch time.

The Social League runs 20 pre-school centres throughout Dominica for children between 3 and 5 years of age. The children receive care, education and at least one glass of milk daily. Immunizations are obligatory before entry to these centres. UNICEF is presently providing funds for this pre-school education project.

The Social Centre is also involved in the distribution of skim milk powder supplied by Catholic Relief Services. Milk is sent to pre-school centres, clinics, hospitals, School for the Deaf and School for the Blind.

1.4. *Intersectoral Coordination:*

The Food and Nutrition Council which has been recently established spans a number of Government departments: Agriculture, Education, Health Services, the Private Sector, Planning, hence within the framework of this council which operates under the auspices of the Ministry of Health is a significant level of intersectoral coordination (See Annex III). In any discussion regarding the nutritional status of the country or the food policy for Dominica, there is a guarantee of review and examination by a number of Government departments and agencies because of the coordinating function of the Food and Nutrition Council.

According to the provisions of Act No. 32 of 1981 establishing the Food and Nutrition Council, the Council is empowered to perform the following:

(a) make recommendations for a national food and nutrition policy;
(b) develop a food and nutrition planning process;
(c) monitor food and nutrition programmes;
(d) prepare and evaluate food and nutrition projects;
(e) assist in the implementation of selected projects;
(f) in collaboration with other responsible agencies assist in the establishment of food quality throughout the food chain; and
(g) perform such other functions related to food and nutrition as the Minister may from time to time, deem necessary.

The Food and Nutrition Council convened an intersectoral workshop in July 1983 to assess its effectiveness and, among recommendations put forward was institutional support for the Council. At this Workshop, the Food and Nutrition Policy, which was formulated in 1979, was also reviewed in the light of the changing economic situation. The Food and Nutrition Policy lists existing and proposed programmes of various ministries and agencies.

These programmes relate to specific problems regarding food availability, food demand, biological utilization and nutritional status of the population, particularly of the vulnerable groups.

PART II

OBJECTIVES OF THE PROGRAMME

Impact Objectives:

The reduction of infant and young child mortality and morbidity (below five years of age).
Better child growth and development (below five years of age).
Improvement of maternal nutrition.

Specific Objectives:

To improve/increase the coverage of the population with Primary Health Care activities carried out at the community level designed to better the nutritional status of mothers and young children.

To promote community development and participation in support of activities related to the improvement of food supply, health and nutrition.

To promote the convergence of activities of different sectors (agriculture, fisheries, welfare, health, education, etc.) involved in the improvement of food supply, health and nutritional status of mothers and children.

Operational Objectives:

To improve the training of the PCN and related personnel and support selected activities at the community level.*

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*The phrase "other related personnel" should be taken to mean persons working in health or any other sector, in governmental or non-governmental organisations

To strengthen the support and supervision given by the central and intermediate levels to health and other community based workers.

To strengthen the Health Information System (HIS) to facilitate programme planning, implementation and evaluation.

To strengthen community participation through activities initiated and conducted at community level.

To strengthen the Food and Nutrition Council and to support the implementation of the Food and Nutrition Policy.

PART III

ACTIVITIES

This programme will proceed in accordance with the following Plan of Action, maintaining the necessary flexibility for any changes which its effective implementation may warrant. A detailed programme is presented for the first year of the project with an accompanying budget. Programme projections have been made for year two, bearing in mind the need to make modifications based on successes or failures of the first year's programme.

While the preliminary budget allocations to the first year for Components 2 and 3 were US$45,000 and US$10,000 respectively, the detailed plans necessitate a shift of resources from Component 2 to Component 3 (See Budget).

COMPONENT 1. Support to the Food and Nutrition Council

GOALS: 1. Increase the capacity of the Food and Nutrition Council to keep food and nutrition problems under constant review.

2. Support the implementation of the National Food and Nutrition Policy.

<u>Activities</u>

1. <u>Food and Nutrition Council Institutional Support and Management</u>

The Food and Nutrition Council convened an intersectoral workshop in July 1983 to examine the role of the Council and to revise the National Food and Nutrition Policy that was formulated in 1979. Institutional support to the Council was considered essential to enable it to effectively fulfil its mandate. A Food and Nutrition Project Coordinator will be recruited to strengthen the administrative capacity of the Council in the promotion of comprehensive food and nutrition policies/programmes. The sum of US$2,552.00 allocated for this post will enable the Council to have in place an employee, who would receive training in the many and varied areas in which he/she will be required to be knowledgeable. The bulk of that training would be conducted locally with the assistance of CFNI. Council would thus be able to develop a resource that would increase its self sufficiency. Funds for this post will be provided from the Council's budget at the end of the project.

The collating, editing and revision of the National Food and Nutrition Policy will provide updated information on sectoral policies/programmes related to the improvement of nutritional status. CFNI will, out of its JNSP budget, recruit a Short Term Consultant (STC) to complete this exercise.

2. Public Education

The Food and Nutrition Council will initiate public education activities in order to increase public awareness of food and nutrition problems and solutions. Greater use will be made of the communications media and information will also be disseminated through community-level organisations.

During the first year of the JNSP, funds will be used in support of the following three activities:

(a) Monthly radio programmes - The Food and Nutrition Project Coordinator will coopt suitably qualified resource persons from the different sectors to plan and to participate in the programmes.

(b) Adult education classes - These will be coordinated through the Adult Education Division and conducted at community level. Agriculture and nutrition will be incorporated into the existing curriculum. The responsibility for coordinating this activity rests with the Education representative on the Food and Nutrition Council.

(c) Food and Nutrition Month - The Council will organise and coordinate activities to coincide with World Food Day in October of each year.

3. Evaluation of Food and Nutrition Manual

The Food and Nutrition Manual for infant grades of primary schools was introduced into schools in January 1982. This was the first manual of its type to be introduced into the formal school system and its use will be evaluated so that the appropriate modifications can be made. The Food and Nutrition Council in collaboration with the Ministry of Education and with assistance from CFNI, will convene a workshop for teachers who have used the manual, in order to make the evaluation exercise more meaningful.

Indicators

1. Food and Nutrition Council's workplan implemented

COMPONENT 2. Support to Training of Primary Care Nurses and Related Personnel; Management of the Programme

GOALS: 1. *Improve knowledge, attitudes and skills of Primary Care Nurses, related personnel and their supervisors*

2. *Strengthen community participation efforts in solving health and nutrition problems*

3. *Support the development and management of Primary Health Care Services*

Activities

1. Support to Training of Primary Care Nurses and related personnel

A number of training activities which are included in the in-service training programme of the Ministry of Health will be implemented through the JNSP. Funds will be used to provide lunches to the participants and to cover costs of stationery and transportation. These training activities all impact on Primary Health Care Services particularly those supported in Component 3 of this document. The training activities are described below:

(a) Seven two-day district workshops (1 workshop per health district) for 120 community level personnel comprising Primary Care Nurses, Health Visitors, Family Nurse Practitioners, Environmental Health Officers, Staff Nurses, District Medical Officers, Community Development Officers, Youth Officers, Agricultural Extension Workers and Home Economics Teachers. They will be trained in the prevention, detection, early treatment and follow-up of Protein Energy Malnutrition. This activity will be coordinated by the staff of the Nutrition Unit, Ministry of Health. CFNI will be asked to assist with planning of the programme.

(b) Six Family Nurse Practitioners will be trained in the copper sulphate method of haemoglobin determination, which will be used in the School Health Programme. They will be trained by the staff of the

Government Laboratory; the session will last one day. Follow-up practice sessions at district level will be monitored by the Laboratory staff with the assistance of CFNI.

(c) Three two-day district workshops will be conducted by the Medical Director, Primary Health Care, for 65 participants comprising Staff Nurses, Family Nurse Practitioners and Primary Care Nurses in the use of diagnostic flow charts. The objective of the workshop is to ensure that nurses at the peripheral and district level in three health districts are adequately trained and equipped to screen patients seen in Primary Health Care Units, to improve the patient flow at clinics and to ensure that patients are treated at the appropriate level by the appropriate health worker. Additional workshops will be conducted in the remaining health districts based on the evaluation of the above workshops.

(d) Seven two-day team building workshops (1 workshop per health district) will be held for the district health teams (100 participants). The workshops are intended to improve communication among team members, develop leadership skills, recognize potential areas of conflict and suggest solutions. The Field Operations Officer who has management training skills will be responsible for this activity.

(e) One two-day workshop for 25 supervisory level personnel - Health Visitors, Family Nurse Practitioners and Senior Environmental Health Officers - will focus on the improvement of supervisory skills. The Field Operations Officer will coordinate this activity.

(f) One hundred and thirty district health team members will, at a one-day annual consultation, review progress of primary health care activities and set targets for the following year. The Field Operations Officer will be responsible for coordinating this activity.

(g) The Ministry of Health and Agriculture in collaboration with CFNI, will conduct one three-day workshop for 20 Agricultural Extension Workers to improve knowledge of basic nutrition, identify food and nutrition problems, their causes and action required.

(h) Ten half-day seminars for 20 health committees,(1 seminar per health committee), will seek to upgrade their skills in Oral Rehydration Therapy (ORT). The health committees will work closely with district health teams in planning, implementing and evaluating educational activities on ORT in their communities. The Health Education Unit, Ministry of Health will be responsible for organising the seminars.

(i) One two-day workshop for 60 representatives of Health Committees will assess the impact of community participation, identify problems affecting the growth and development of community participation and establish guidelines for strengthening community participation efforts. The Field Operations Officer, with the assistance of PAHO/WHO will be responsible for coordinating this activity.

Indicators

Number of participants in each training activity.

2. Support to the Management of Primary Health Care Programmes

In the reorganisation process which led to the development and strengthening of Primary Health Care Services, the need for additional staff was recognized and documented in the National Health Plan (1982-1987). Due to budgetary constraints, the Ministry will phase in these new posts progressively. In the interim, the JNSP funds will be used to meet staff costs in two priority programme areas. Two Nutrition Assistants and one Health Information Officer will be employed through the JNSP. The Nutrition Assistants will be involved in the promotion of food and nutrition activities in the Primary Health Care System. One Nutrition Assistant will benefit from seven-month Community Nutrition Course to be held in Barbados. The Health Information Officer will assist in the collation of data at the intermediate and central levels of the health care delivery system. Funds for these three posts will be provided from the local budget at the end of the project to ensure continuity.

Allowances will be paid to the Nutritionist/Programme Coordinator and the Organisation Development Officer/Field Operations Officer who will assume additional responsibilities related to the management of JNSP supported activities. (The duties and responsibilities of staff are outlined in Annex IV)

Dominica is characterized by hilly terrain with most of the villages in isolated pockets. The monitoring of Primary Health Care activities, data collection and the conduct of training activities at district level demands ready transport. A 4-wheel drive vehicle is therefore requested; the maintenance costs of the vehicle will be included in the local budget

COMPONENT 3. Support to the Primary Health Care Activities at the Intermediate and Community Level

Support will be given in the following programme areas:-

1. REDUCTION OF INFANT AND YOUNG CHILD MALNUTRITION

GOALS:

1. *Reduce the prevalence of Protein Energy Malnutrition in infants and children 0 - 5 years by 60 per cent in five years*
2. *Reduce hospital admission for gastroenteritis by 50 per cent*
3. *Ensure that 80 per cent of babies are fully breastfed for a minimum of three months*
4. *Ensure establishment of the timely introduction of appropriate complementary (weaning) foods. Eighty per cent of infants should be receiving weaning foods at four to six months*

Protein-energy malnutrition exists in infants and young children. In 1976 approximately 51 per cent of children were found to be suffering from malnutrition. Infection further aggravates the malnutrition and sets a vicious cycle in motion.

Activities

A. Improved Growth Monitoring

A programme aimed at reducing the incidence of Protein-Energy Malnutrition in infants and young children will be conducted through the establishment of better monitoring of growth status and consequently better detection of mild or moderate Protein-Energy Malnutrition with referral of severe cases for treatment.

At the present time, data on the health and nutrition status of 5 year olds are recorded during clinic visits throughout the 42 clinics in Dominica. However, these data have not been collated for three years.

As a matter of priority, during the first two months of the project, a Health Information Officer, a Nutrition Assistant and the Field Operations Officer will collate the existing data which will serve as a baseline for this project. Thereafter, the weight/age data will be collected through the already functioning Health Information System.

Growth monitoring through weighing and use of the growth chart has been an ongoing activity for three years in clinics. New Child Health Passports (CHP) using the WHO classification were introduced in 1980 but monitoring has been hampered by an insufficient supply of Child Health Passports and accurate paediatric beam balance scales. During the first year of the JNSP, five paediatric scales and 9,000 Child Health Passports with continuation sheets will be purchased. The CHP's will be produced locally and will represent the total amount needed for the life of the project. Since clinic attendance in the rural areas is good (95%), monitoring will take place during clinic visits by Primary Care Nurses. Through public education programmes, the public will be encouraged to increase attendance at clinics, particularly in the Roseau area. With the introduction of additional Primary Care Nurses, follow-up through home visits will be increased. Members of the Health Team will undergo a programme of training during the first year of the project designed to upgrade their skills in the detection of mild-moderate Protein-Energy Malnutrition.

Through the School Health Programme, Family Nurse Practitioners throughout Dominica (except the Portsmouth Health District where there is no Family Nurse Practitioner) conduct physical examinations on five year olds entering primary schools. The height/weight data thus collected will serve as an index of child growth and development. Height tapes and standard weight/height tables will be provided to the Family Nurse Practitioners to ensure uniformity of interpretation of the data collected.

Funds will be allocated to upgrade the physical facilities at the Nursery at the Princess Margaret Hospital to provide for better care of the newborn. During the second year of the project, growth monitoring will be further facilitated through the acquisition of five additional paediatric scales and an intensifying of the public education programme.

B. Control of Gastroenteritis

The incidence of gastroenteritis is high and it is still the leading cause of admission to hospital. During 1982, 17.1 per cent of children under one year and 9.8 per cent of children one to four years old were admitted to the Princess Margaret Hospital suffering from gastroenteritis.

During the first year of this project, reduced hospital admission for gastroenteritis will be achieved through a combined education programme and provision of Oral Rehydration Salts. The education programme will be aimed at mothers and communities and will have the following three components:

1. Education through the clinics using health staff
2. Training of village health committees to conduct activities such as planning of group education sessions and advising on the correct use of Oral Rehydration Salts. They will ultimately assist the health teams.
3. Weekly radio programmes utilizing tapes in English and Patois produced with the assistance of CFNI.

Supplies of Oral Rehydration Salts (ORS) will be provided to Central Medical Stores and requisitioned by staff in the Health Districts when needed. Supplies of ORS will be obtained through the Control of Diarrhoeal Diseases Programme (PAHO/WHO).

During the second year of the project, the impact of use of Oral Rehydration Therapy will evaluated. Interventions will be suggested based on the results of the evaluation.

C. Improvement of Breastfeeding and Weaning Practices

Data on breastfeeding practices will be obtained from a study of all babies born between October 1 and 31, 1983 at the Princess Margaret Hospital, who will be followed up for a period of three months. The study, which is being conducted by

the Nutrition Unit, will yield data regarding the number of babies breastfed, for how long, whether mixed feeding was used, when complementary feeds were introduced, the nature of these supplements and reasons for the introduction of supplements. Baseline data on weaning practices will be obtained from a survey conducted between July - August 1983 in the St. Joseph and Roseau districts by paediatricians attached to the Ministry of Health. Thereafter, data on breastfeeding and weaning practices will be collected on a routine basis from Child Health Clinic Records through the Health Information System.

The JNSP will seek to strengthen the ongoing programme of education in clinics through the provision of additional educational materials and equipment for listening to taped messages; a food demonstration equipment will also be provided to 42 clinics during the first year thus enabling Health Team members to carry out demonstrations on the preparation of foods from the 'family pot' for the weaning infant. A series of workshops on weaning conducted during 1983 has equipped Health Team members, Agricultural Extension workers and Community Development workers to implement educational activities.

A breastmilk bank was established at the Princess Margaret Hospital during 1983. It will serve to provide breastmilk to premature infants, and low birth weight babies who remain hospitalized after their mothers have been discharged. The bank functions below capacity due to a lack of equipment. Funds will be allocated from this project for the purchase of additional bottles and breastmilk pumps.

A'Strategy to Promote Successful Breastfeeding' was developed in 1982 with funding from UNICEF and technical assistance from CFNI. Arising from this, a Breastfeeding Committee has been actively monitoring the implementation of the Strategy. Adherence to the WHO Code of Marketing of Breastmilk substitutes is poor and requires continued vigilance by the Committee. They have been mandated by the authorities to prepare local guidelines based on the WHO code to ensure better compliance and funds will be earmarked from the project for this purpose.

Radio programmes are costly and thus nutrition education programmes have been sporadic. This project will provide sponsorship of weekly radio programmes to give a much needed fillip to a public education programme using radio.

Available data show that the one Government-owned radio station reaches about 80 per cent of the population. The Nutrition Unit, in collaboration with the Health Education Unit, will coordinate this activity. CFNI will be asked to assist with the preparation of a series of programmes with the following themes: Breastfeeding, weaning, use of Oral Rehydration Salts, importance of attending clinic, importance of immunization, value of home food production and so on.

Projections for the second year include continued clinic education and radio programmes, monitoring of the breastfeeding strategy and adherence to the guidelines for advertising, distribution and marketing of breast milk substitutes, and data collection for evaluation purposes.

Indicators:

1. Weight/age for under 5's to determine nutritional status.
2. Weight/height data for primary school children.
3. Reduced admission to hospital for gastroenteritis.
4. Percentage distribution coverage of Oral Rehydration Salts.
5. Number of home visits.
6. Rate of immunization.
7. Number of babies being fully breastfed for three months.
8. Number of babies introduced to appropriate complementary feeds. at four to six months.

2. THE CONTROL OF ANAEMIA

Iron folate deficiency anaemia is prevalent among pregnant and lactating women and children. A 1982 survey of two districts showed that 65.3 per cent and 56.0 per cent of pre-school children were anaemic.

GOALS:

1. *Reduce the prevalence of mild to moderate anaemia (Hb < 10.0g/dl) in antenatals to under 15 per cent in five years*
2. *Reduce the prevalence of anaemia (Hb < 10.0 g/dl) in pre-school age children to under 15 per cent in five years*
3. *Reduce the prevalence of anaemia (Hb < 11.0 g/dl) in school age children to under 15 per cent in five years.*

Activities

Baseline data will be obtained from a study conducted in 1982 by the French authorities in the south-eastern and western districts. In addition baseline data on the Hb. levels of pregnant women will be obtained from the Government Laboratory by the Health Information Officer. Thereafter, data will emanate from the Health Information System.

During the first year of the project screening of school children at five, 11 and 15 years using the copper sulphate method will be introduced. For effective implementation of this activity, six Family Nurse Practitioners will be trained in the use of the copper sulphate method by the Government Laboratory authorities. Supplies of liquid ferric ammonium citrate will be supplied to children found anaemic. Pregnant women will continue to have Hb. levels determined at the laboratory but will be provided with iron and folate tablets purchased with funds from this project since supplies are irregular.

Plans for the second year of the project include training of district health teams in the copper sulphate method of Hb determination. Routine screening of pregnant women and young children at district level will be established. The existing system of determining Hb levels for pregnant women involves the taking of blood samples at district level for transmission to the main Health Centre in the district. Samples are then forwarded to the laboratory in Roseau and results are relayed to the district. Treatment is therefore delayed. Individuals with Hb. levels below 10g/dl will be further investigated at the laboratory.

The anaemia control programme will have a strong education component. Education programmes using radio, clinics and Family Nurse Practitioners in the School Health Programme will be conducted. CFNI will assist with the production of appropriate educational materials.

A training programme for health workers in the prevention and control of anaemia will be mounted during the second year of the project.

Indicators

1. Hb levels.

3. THE CONTROL OF INFECTIOUS DISEASES

GOALS: 1. *Reduce the incidence of infectious diseases which affect the biological utilization of food*

2. *Ensure that all children three months to one year are fully immunized*

Activities

A. Immunization Programmes

The present coverage of EPI diseases is fairly good in rural areas but the importance of complete immunization needs to be emphasized. Both the media and village health committees will be used for this purpose. Detection and follow-up of non-clinic attenders and defaulters are the functions of District Staff Nurses and Primary Care Nurses who are supervised by the Health Visitors.

Supplies of vaccines are obtained through the EPI revolving fund. Each health district is adequately provided with a refrigerator at the Type III health centre for storage of vaccines but flasks are used to transport vaccines to outlying areas within the districts. An insufficient number of flasks, syringes and needles hamper the immunization programme. Better coverage will be achieved through a combined education exercise and provision of these much needed items.

The second year of the project will evaluate the immunization coverage, provide additional syringes and needles and launch a programme to ensure that primary school entrants are fully immunized.

B. Typhoid Control

The Seventh Day Adventist World Service (SAWS) will be conducting a three-year programme in the Grandbay Health District and Marigot/Wesley Health District chosen on the basis of their high endemicity and high incidence of typhoid fever in 1982.

UNICEF has recently funded two seminars for principals of primary schools on the control of typhoid and diarrhoeal disease and has provided funds to the Ministry of Health for the conduct of workshops for health teams in the control of typhoid, which are in progress.

JNSP funds will, therefore, only be applied to supporting educational programmes.

Indicators

1. Immunization coverage. Percentage of children <1 year immunized.
2. Absence of EPI diseases

4. THE CONTROL OF PARASITES

GOAL: *Reduce the incidence of parasitic infections in the population, particularly children and pregnant women*

Activities

The incidence of parasitic infestation is high. A CAREC survey of school children in 1979 revealed that 95 per cent of children were infested with one or more parasites. The Castle Bruce Health District has been identified by health authorities as one of the high risk areas. The programme for this area has three components:

1. A random sample of the population in this area will be taken to determine the factors associated with parasitic infestation there. The Laboratory Superintendent, a qualified epidemiologist, will assist with the design of the study and preparation of the computer programmes. CAREC and CFNI will be asked to assist with the screening for stool samples and analysis of data, respectively. The Kato thick smear cellophane technique will be used in the stool investigation with a view to introducing this screening method at clinic level during the second year of the project. It is expected that there will be a local training component in the exercise conducted by both outside agencies. Affected members of the population will be treated with anti-helminths. On the basis of results of the study, further appropriate interventions will be applied during the second year.
2. Funds will be allocated for the provision of 200 pit latrines to householders in this district. In an effort to promote community participation, householders will be encouraged to complete the construction and use of these facilities.

3. Educational activities with a focus on sanitation, will be conducted in the selected district by village health committees and other community based organisations. CFNI will prepare appropriate support materials.

The island-wise radio programme alluded to previously, will form part of the ongoing education programme.

During year two, a pre and post survey to assess changes in the level of community awareness with respect to sanitation will be conducted. A community based health education programme will be mounted with the project providing small allocations for rodenticides and insecticides where necessary. Some additional latrine units will be provided and district level screening of school children using the Kato method will be established. The programme will receive strong support from a public education programme using radio.

Indicators

1. Level of parasitic infection
2. Number of pit latrines constructed

5. IMPROVEMENT OF MATERNAL NUTRITION

GOALS: 1. Reduce the number of low birth weight babies
2. Reduce risks for childbearing women

Activities

The best indicator of maternal nutrition is the birth weight of the baby. Available data show that 10 per cent of the newborns at the Princess Margaret Hospital have birthweights of less than 2.5 kg. In order to provide a data base against which later progress can be measured, data on low birth weights from the Princess Margaret Hospital as well as from the districts through the Health Information System will be collated. In order to identify the risk factors associated with low birth weight babies in Dominica, a retrospective study on mothers who had delivered low birth weight babies at the Princess Margaret Hospital will be conducted. Follow-up action will concentrate on high risk mothers. PAHO/WHO Barbados, will be requested to assist with the revision of the Maternal and Child Health manual incorporating information obtained from the risk factor study.

Programmes outlined elsewhere in this document for the treatment of anaemic women, treatment of parasites, increased home food production and the massive nutrition education drive are expected to impact favourably on women.

During the second year of the project the focus will be on improving the monitoring of women during pregnancy. A pilot project to determine the usefulness at clinic level of the "Weight for height by week of pregnancy" table devised by CFNI in collaboration with the obstetrician/gynaecologist in Dominica, will be conducted. CFNI will be asked to assist with the design of the project, evaluation of results and provision of sufficient tables for use. One clinic in the Roseau area will be selected for the study and adult beam balance scales will be procured with funds from the project. Should the table prove useful for rapid assessment at clinic level the activity will be extended island-wide and tables and additional scales will be needed to facilitate the island-wide programme.

Indicators

1. Number of low birth weight babies
2. Number of women maintaining correct weight using weight for height pregnancy tables

6. HOME FOOD PRODUCTION

GOAL: 1. *Increase home food production to augment family food supplies particularly among high risk households*

Activities

Mapping and numbering of households have been completed in all districts except the Roseau area. Identification of high risk households is in progress. Primary Care Nurses and other members of the health team will, in three selected districts, determine among the existing high risk households, those requiring assistance with the establishment of kitchen gardens and the rearing of small stock. Tools and seeds will be provided from JNSP funds for this project. Funds permitting, small stock will also be provided. Demonstrations will be conducted with the assistance of Agricultural Extension Officers. This programme will be coordinated by the Programme Coordinator assisted by the Field Operations Officer.

During the second year of the project, one additional district will receive assistance.

Indicators

1. Number of kitchen gardens established
2. Types of crops grown
3. Use of foods produced with assistance of project

7. INCOME GENERATING ACTIVITIES FOR WOMEN

GOAL: *To increase the number of women engaged in income generating activities*

The Social Centre which administers a number of women's group activities throughout Dominica, will be provided with funds in the sum of US$3,000 intended for disbursement to women's groups at community level. Groups already engaged in income-generating activities will be assisted as well as those wishing to become involved but who lack the necessary funds. Funds will be provided as soft loans to groups under terms to be specified.

The second year of the project will provide additional funds to widen the coverage of women's groups.

Indicators

1. Number and type of projects implemented
2. Number of beneficiaries

PART IV

COORDINATION AND ADMINISTRATION,

MONITORING AND EVALUATION

COORDINATION AND ADMINISTRATION

The responsible agent for the JNSP will be the Ministry of Health. This Ministry, through its Central Technical Committee (the programme formulation level), will be responsible for the planning of the programme. The Ministry will designate a Programme Coordinator who will be responsible for the supervision and evaluation of the programme's activities as well as for the preparation of the necessary reports. The Programme Coordinator will be responsible to the Central Technical Committee which will receive advice from the Food and Nutrition Council and other related bodies. The Programme Coordinator will also be responsible for preparing the yearly progress reports for submission to WHO/UNICEF through CFNI. The Programme Coordinator may request assistance from CFNI for this purpose, especially during the earlier years of the Programme.

The Programme Coordinator will be assisted by a Field Operations Officer who will monitor the programme's activities in the field and assist with the collection of data as well as with the preparation of reports.

MONITORING AND EVALUATION

The programme will be monitored by CFNI, the UNICEF Caribbean area office and the CPC's Office, Barbados.

Evaluation of the progress achieved through the different components will be performed by the Ministry of Health, with the technical assistance of CFNI, CPC and the UNICEF Caribbean area office. This evaluation will be performed mid-way and at the end of the life of the JNSP.

TIME LINE OF JNSP. YEAR 1

ACTIVITIES	Jan. '84	2	3	4	5	6	7	8	9	10	11	12
COMPONENT 1. Support to the Food and Nutrition Council												
1. Recruitment of Food and Nutrition Project Coordinator	→											
2. Collating, editing and revising Food and Nutrition Policy	→											
3. Preparation and implementation of work plan of the Council	—	—	—	—	—	—	—	—	—	—	—	→
4. Radio programmes				—	—	—	—	—	—	—	—	→
5. Food and Nutrition month										→		
6. Evaluation of Food and Nutrition Manual for primary schools	→											
7. Adult Education classes				—	—	—	—	—	—	—	—	→
COMPONENT 2. Support to Training and Management of Programme												
(a) Training												
1. Seven 2-day district workshops - Prevention, Detection, Treatment of P.E.M.			2	2	2	1 →						
2. Three 2-day district workshops on use of diagnostic flow chart						—	→					
3. Seven 2-day team building district workshops	2	2 →		2	1 →							
4. One 2-day workshop to assess impact of community participation							→					
5. One 2-day workshop for Health Visitors, Family Nurse Practitioners to improve supervisory skills			→									
6. One 1-day Annual Consultation												→
7. One 3-day workshop for Agricultural Extension workers			—									
8. Ten half-day seminars for Health Committees						—	—	—	—	—	—	→
9. One 1-day workshop in copper sulphate method of Hb determination for 6 Family Nurse Practitioners.							→					

TIME LINE OF JNSP (Cont'd)

ACTIVITIES	Jan. '84	2	3	4	5	6	7	8	9	10	11	12
(b) Management												
1. Selection of participant for 7 months Community Nutrition Course	——→											
2. Appointment of Nutrition Assistant	——→											
3. Appointment of Programme Coordinator, Field Operations Officer	——→											
4. Appointment of Health Information Officer	——→											
5. Purchase and delivery of vehicle	——	——→										
COMPONENT 3. Support to Primary Health Care Activities												
i) Improvement of infant and young child nutrition												
1. Collating of existing data on nutritional status of <5's	——	——→										
2. Analysis of weaning data from survey	——	——→										
3. Collation and analysis of data on breastfeeding practices	——	——→										
4. Production of child health passports				——→								
5. Preparation of guidelines based on the Code	——→											
6. Circulation of the guidelines				——								
7. Purchase and delivery of scales and height tapes	——	——	——	——	——→							
8. Purchase and delivery of breast milk bank equipment	——	——	——	——	——→							
9. Purchase and delivery of food demonstration equipment (_____) distribution (------)	——	——	——	——	——→	- - -	- - -→					
10. Conduct food demonstrations in clinics/communities								——	——	——	——	——→

ACTIVITIES	Jan '84	2	3	4	5	6	7	8	9	10	11	12
11. Purchase and delivery of flasks, syringes, etc. for EPI Programme	→	→	→	→	→							
12. Purchase and delivery of equipment for nursery	→	→	→	→	→							
ii) Control of Anaemia												
1. Collection of data on anaemia from French study	→	→										
2. Educational programmes								→	→	→	→	→
3. Screening of school children using $CUSO_4$ method									→	→	→	→
4. Purchase and delivery of drugs - ferrous ammonium citrate, ferrous sulphate, antihelminths	→	→	→	→	→							
iii) Control of Parasites												
1. Parasite survey in one health district		→	→	→	→	→						
2. Educational programme					→	→	→	→	→	→	→	→
3. Distribution of latrine units					→	→	→	→	→			
iv) Improvement of Maternal Nutrition												
1. Collection of data on low birth weight babies from hospitals and districts	→	→										
2. Retrospective risk factor study		→	→	→	→	→	→	→	→	→	→	→
v) Home Food Production												
1. Identification of high risk households	→	→	→									
2. Purchase and delivery of tools	→	→	→									
3. Distribution of tools and seeds				→								

TIME LINE OF JNSP (Cont'd)

ACTIVITIES	Jan '84	2	3	4	5	6	7	8	9	10	11	12
vi) Income Generating Activities for Women												
1. Provision of operating guidelines to Social Centre												
2. Provision of funds to Social Centre (____); Disbursement (-----)												
3. Identification of groups												
4. Submission of quarterly reports												
vii) Communications Support to all Programmes												
1. Radio programmes												
2. Educational programmes in clinics (dependent on production of CFNI material)												
PREPARATION OF ANNUAL REPORT												

DOMINICA

BUDGET - YEAR I

COMPONENT 1 - Support to Food and Nutrition Council	US$	
1. Institutional support - Salary of Food & Nutrition Project Coordinator	2552.00	
Stationery and Supplies	370.00	
2. Sponsorship of radio programmes, educational materials	1860.00	
3. Evaluation of "Food & Nutrition Manual for Infant Grades of Primary Schools"	560.00	
SUB TOTAL		5342.00
COMPONENT 2 - Support to Training: Management of Programme		
1. 7 2-day workshops for community personnel	1490.00	
2. 1 1-day workshop for Family Nurse Practitioners in $CUSO_4$ Method	45.00	
3. 3 2-day workshops in the use of diagnostic flow charts	915.00	
4. 7 2-day team building workshop	1300.00	
5. 1 2-day workshop for 25 Health Visitors	310.00	
6. 1 1-day Annual Convention of health teams and village health committees	985.00	
7. 1 3-day workshop for Agricultural Extension Workers	665.00	
8. 10 half-day seminars for health committees	820.00	
9. 1 2-day workshop for 60 representatives of health committees	980.00	
10. Salaries - Health Information Officer	3844.00	
Nutrition Assistant	3744.00	
Nutrition Assistant (3 mths) (being trained at 7 mth. Community Nutrition Course)	936.00	
11. Allowances - Programme Coordinator	2240.00	
Field Operations Officer	1790.00	

			US$	
				5342.00
COMPONENT 2 (Cont'd)		Brought forward	20064.00	
12.	Vehicle (4 wheel drive)		14180.00	
13.	Stationery and Supplies		4000.00	
		SUB TOTAL		38244.00

COMPONENT 3 - Support to Primary Health Care Activities at Community Level

			US$
1.	5 Paediatric Beam Balance Scales		560.00
2.	9000 Growth Charts (Child Health Passports)		750.00
3.	Breastmilk bank equipment (breast pumps, bottles)		100.00
4.	Equipment for E.P.I. programme (needles, syringes, flasks)		2055.00
5.	Parasite Control Project	- Stool cups	150.00
		Antihelminths	300.00
		Latrine units	3730.00
6.	Anaemia Project	- Copper sulphate solution, litre bottles, tubes, lancets	200.00
		Ferric ammonium citrate, iron and folate tablets	200.00
7.	Equipment for the nursery		750.00
8.	High risk study (data collection and analysis)		750.00
9.	Seeds for kitchen garden project		750.00
10.	Radio Programme sponsorship		1865.00
11.	1 tape recorder		115.00

		US$	
			5342.00
			38244.00
	Brought forward	12275.00	
COMPONENT 3 (Cont'd)			
12.	24 Recording Tapes	60.00	
13.	Allocation to Social Centre (income generating activities)	3000.00	
14.	Food demonstration equipment	1600.00	
15.	Height tapes for school health	200.00	
16.	Miscellaneous	500.00	
	SUB TOTAL		17635.00
	TOTAL		61221.00

A N N E X E S

WHAT IS IFAD?

The International Fund for Agricultural Development (IFAD) is a specialised Agency of the Food and Agriculture Organization of the United Nations.

The main objective of the Fund is to make resources available, on easy terms, to developing countries. The Fund aims at speeding up food production and bringing real benefits to the rural poor by developing agriculture.

IFAD funds are contributed by developing countries, the oil-exporting countries, and smaller amounts by developing recipient countries.

IFAD Headquarters is in Rome.

THE IFAD PROJECT IN DOMINICA

The project seeks to increase food production in Dominica and to provide assistance in agriculture related services. The project has a loan and grant component.

Credit will be provided for fishermen, farmers, and food processors. Also, loans are available for infrastructural works, training, adaptive on-farm research, institutional development and marketing.

The objectives of the project are to rehabilitate, and expand food crop producing farms, livestock producing units and fishing facilities, which were damaged by Hurricane David.

The project also enables the Government of Dominica to improve the food marketing functions of the Dominica Agricultural Marketing Board. IFAD provides funds for the improvement of infrastructural works, institutions and technical support services for the projects.

THE LOAN COMPONENT

1. *Crop Production*

IFAD provides credit for farmers to meet the cost of production for the following food crops:

(a) Root crops (yams, tannia, dasheen, etc.)
(b) Plantains
(c) Pumpkins
(d) Peas and beans
(e) Vegetables
(f) Other food crops produced for the domestic market.

2. *Livestock Production*

IFAD provides credit for small pig fattening and egg production units. Small intensive dairy units, sheep, goats and other small stock are also included.

3. *Fisheries*

IFAD provides loans for the purchase of boat, engines and fishing gear. A working capital loan is made available for the fishing cooperatives for stocking of fuel, equipment and spares for re-sale to fishermen.

4. *Farm Structures*

IFAD provides funds for the construction of on-farm roads and other related structures (farm buildings, fish ponds).

5. *Marketing*

IFAD provides Dominica Agricultural Marketing Board (DAMB) with a working capital to initiate the purchase of incremental production coming off the farms. IFAD believes that marketing is very important for the success of its production programme.

LOANS TO MINISTRY OF AGRICULTURE

IFAD provides loans for the Government of Dominica through the Ministry of Agriculture to expand and improve:

1. *Beaching Sites*

IFAD provides funds for the improvement of sites used for beaching boats in major fishing areas. As a first priority, work to improve the safety of these sites will be undertaken.

2. *Pig Breeding Units*

IFAD provides funds for the repair of pig breeding units. These were damaged by Hurricane David in August 1979.

3. *Technical Services*

IFAD provides funds for training of the project staff. Loans made to sub-borrowers must be based on technically sound and financially viable investment plans. Therefore, the staff will be trained to assist borrowers. The staff of the AID Bank will have to be increased and provided with necessary training. The staff of the Credit Union will also be provided with training.

4. *Training and Adaptive On-Farm Research*

IFAD provides funds to enable the Ministry of Agriculture, through its Extension Service, to undertake the training of farmers in the use of credit. Those farmers will be trained in the adoption of improved techniques of food production.

THE GRANT COMPONENT

The Grant Component of the IFAD Project provides for the following:

(a) The services of the Project Coordinator
(b) Technical support services to Credit Unions.

Project Cost and Project Area

The IFAD Project in Dominica will cost approximately US$2.24M. The IFAD Project will operate throughout Dominica. The appropriate farming and fishing areas will be identified by the field staff of the Ministry of Agriculture, Lands and Fisheries and A.I.D.B.

Who Will Benefit from IFAD?

IFAD will be of direct benefit to small farmers (under 25 acres), small fishermen, registered agricultural cooperatives, farmers' groups, fisheries cooperatives and small food producers. Generally, these groups were unable to secure loans from credit institutions in the past. This was because of their inability to provide collateral to secure loans.

Part A - (CREDIT) of the IFAD loan will be executed through the AID Bank. IFAD loans to individuals range from EC$1,080 - $6,750. These loans will be allowed for:

(a) Crop Production. Fishing, small livestock sub-projects.
Loan periods must not exceed five years with a nine months grace period.

(b) Large livestock production. Agro-processing, On-farm Infrastructure.
Loans may be granted for periods up to ten years with two years grace period.

The interest rate will not be less than 5½% per annum on the outstanding balance.

For further information call in at the IFAD Office - AID Bank or call 4167.

Cooperatives (Production and Marketing)

IFAD loans to Cooperatives will not be less than EC$21,600.00.

Loan periods are up to five years with one year's grace.
Interest rate will not be less than 4½% per annum.

Credit Unions

IFAD provides not less than EC$27,000.00 to each Credit Union on a half-yearly basis. This will be for on-lending to members. Amounts should not exceed EC$1,080.00 at not more than 6%.

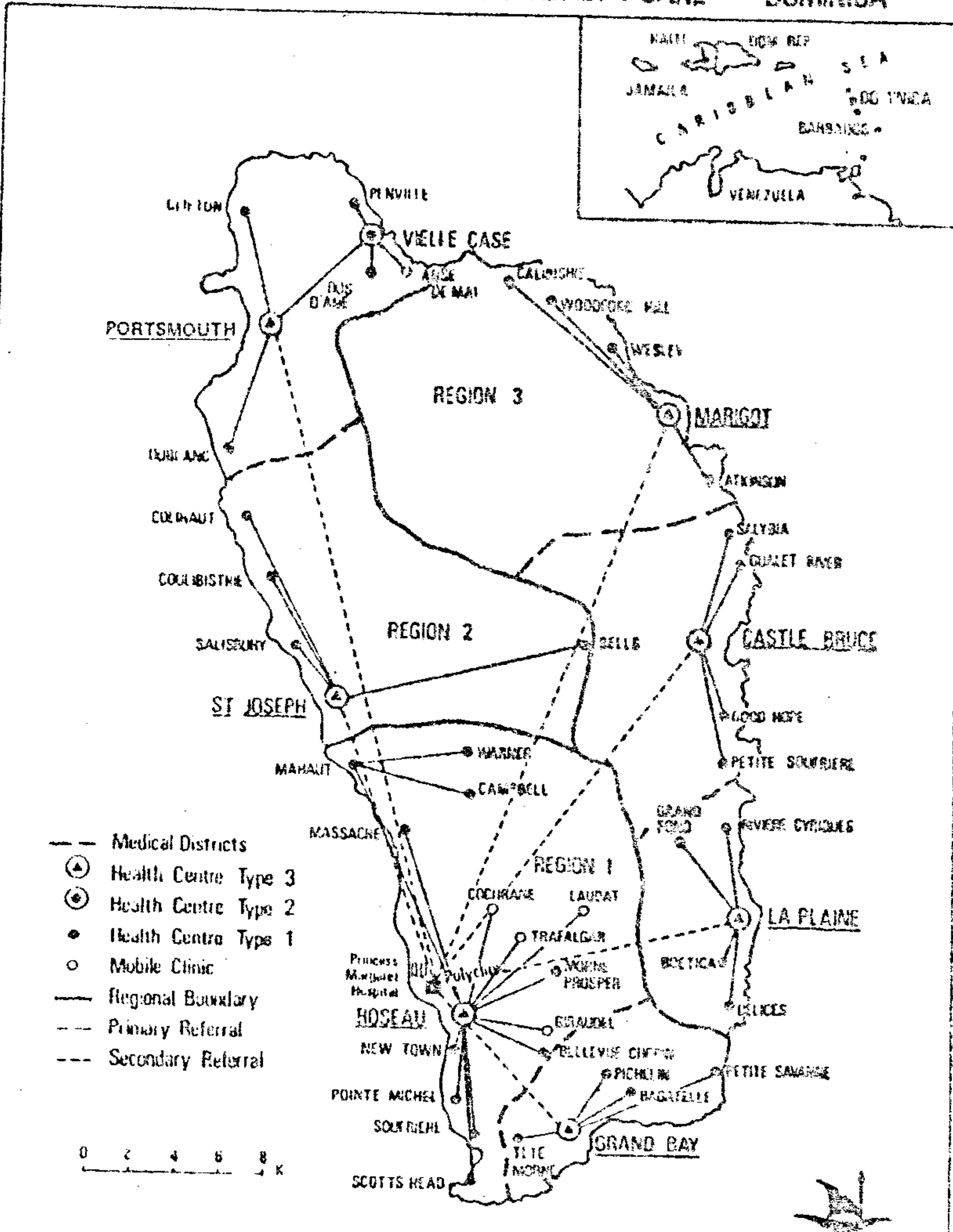
The repayment period for Credit Unions will not exceed ten years with three years grace. The interest rate is not less than 4½%.

Marketing Board

IFAD provides a working capital loan to the Dominica Agricultural Marketing Board for seven years with two years grace at not less than 5½% per year.

How to Request an IFAD Loan

Request for loans and farm plans will be prepared with the assistance of the field officers of the AID Bank and the Ministry of Agriculture. Security for loans is made mainly through a guarantor.


HEALTH CENTRES AND PRIMARY HEALTH CARE DOMINICA
VENEZUELA
PORTSMOUTH
VIELLE CASE
MARIGOT
REGION 3
REGION 2
REGION 1
ST JOSEPH
CASTLE BRUCE
LA PLAINE
ROSEAU
GRAND BAY
MAHAUT
MASSACRE
NEW TOWN
POINTE MICHEL
SCOTTS HEAD
COCHRANE
LAUDAT
TRAFALGAR
PETITE SAVANNE
PETITE SOUFRIERE
GOOD HOPE
ATKINSON
Medical Districts
Health Centre Type 3
Health Centre Type 2
Health Centre Type 1
Mobile Clinic
Regional Boundary
Primary Referral
Secondary Referral

ROLES AND RESPONSIBILITIES OF STAFF

PROGRAMME COORDINATOR

1. Supervise and coordinate the project-supported activities.
2. Analyse data from the results of the training component and activities at community level.
3. Direct the activities of the Field Operations Officer.
4. Provide the link between the Central Technical Committee of the Ministry of Health and the Food and Nutrition Council.
5. Prepare the Annual Report for submission to WHO/UNICEF through CFNI.

FIELD OPERATIONS OFFICER

1. Assist with analysis and collation of data.
2. Coordinate and supervise activities at the community level.
3. Identify training needs with health committees and community members as they relate to Primary Health Care.
4. Plan and conduct training activities at district level.
5. Assist Programme Coordinator with preparation of reports.

HEALTH INFORMATION OFFICER

1. Devise forms for use in data collection.
2. Collect and collate data flowing from the Health Information System.
3. Collect data from hospital and laboratory records.
4. Assist Field Operations Officer with the collection of data from the field.

NUTRITION ASSISTANTS

1. Assist health staff and communities with implementation of community-based activities.
2. Assist health committees and community organisations with planning and conducting educational activities.
3. Assist in the conduct of in-service training workshops.

4. Assist in coordinating public education programmes using the electronic and print media.
5. Participate in research studies.

FOOD AND NUTRITION PROJECT COORDINATOR (FOOD AND NUTRITION COUNCIL)

1. Prepare an inventory of ongoing activities of different sectors and their stage of implementation for use as baseline data by the Food and Nutrition Council.
2. Liaise with different ministries and private agencies to monitor progress of food and nutrition activiites identified in the National Food and Nutrition Policy.
3. Coordinate monthly radio programmes.
4. Prepare regular progress reports for the Food and Nutrition Council.

SUMMARY

Project Title	Major Components	Executing Agency	Support	JNSP Budget Year 1
SUPPORT TO THE FOOD AND NUTRITION COUNCIL	Collate, edit and revise the Food and Nutrition Policy	Food and Nutrition Council	CFNI	
	Recruit Food and Nutrition Project Coordinator to coordinate activities of the sectors identified in the work plan of the Food and Nutrition Council	- do -		2552.00
	Prepare and implement work plan	- do -	CFNI	
	Conduct Radio programmes	- do -	Min. of Ed. Agric.,Comm. Dev.,Planning	1860.00
	Conduct Food and Nutrition Month	- do -	- do -	
	Evaluate Food and Nutrition Manual for Infant Grades of Primary Schools	Min. of Health H. Ed. Unit	CFNI	560.00
	Conduct Adult Education Classes	Min. of Ed.; Adult Ed. Div.	Min. of Agric. Comm. Dev.	

PROJECT SUMMARY (Cont'd)

Project Title	Major Components	Executing Agency	Support	JNSP Budget Year 1
SUPPORT TO TRAINING AND MANAGEMENT OF THE PROGRAMME	Conduct seven 2-day district workshops for community level personnel	Min. of Health	CFNI	1490.00
	Conduct three 2-day workshops on the use of diagnostic flow charts	- do -		915.00
	Conduct seven 2-day team building workshops	- do -		1300.00
	Conduct one 2-day workshop to assess impact of community participation	- do -	PAHO/WHO Barbados	980.00
	Conduct one 2-day workshop for Health Visitors, Family Nurse Practitioners to improve supervisory skills	- do -	CARICOM Secretariat	310.00
	Conduct one 1-day Annual Consultation	- do -	PAHO/WHO Barbados	985.00
	Conduct one 3-day workshop for Agricultural Extension Workers	Min. of Agr., Health	CFNI	665.00
	Conduct ten half-day seminars for Health Committees	Min. of Health		820.00

PROJECT SUMMARY (Cont'd)

Project Title	Major Components	Executing Agency	Support	JNSP Budget Year 1
	Conduct one 1-day workshop in the Copper Sulphate method of Hb. determination for 6 Family Nurse Practitioners	Central Lab.	CFNI	45.00
	Appoint Programme Coordinator, Field Operations Officer, Health Information Officer, and Nutrition Assistants	Min. of Health		12554.00
	Purchase vehicle	- do -		14180.00
REDUCTION OF INFANT AND YOUNG CHILD MALNUTRITION	Collect data on nutritional status of < 5's	Min. of Health		
	Analyse weaning data	- do -		
	Collate, analyse data on breastfeeding practices	Nutrition Unit		
	Produce Child Health Passports (Growth Charts)	Min. of Health		750.00

PROJECT SUMMARY (Cont'd)

Project Title	Major Components	Executing Agency	Support	JNSP Budget Year 1
	Prepare and circulate Guidelines based on WHO Code of Marketing of Breastmilk Substitutes	B/F Committee	CFNI	
	Purchase and deliver scales, height tapes for use in schools; breast-milk bank equipment; food demonstration equipment; equipment for EPI programme; equipment for nursery;	Supplies Officer Min. of Health	UNICEF	5265.00
	Conduct food demonstrations in clinic	Min. of Health	Min. of Agric. Comm.Dev.	
	Revise MCH Manual	- do -	PAHO/WHO Barbados	
THE CONTROL OF ANAEMIA	Collate data on Anaemia from the French survey	Nut. Unit Min. of Health		
	Conduct educational programme	Min. of Health	CFNI	
	Screen school children using the Copper Sulphate method	Min. of Health		200.00
	Screen pre-school children and pregnant and lactating women	- do -		
	Purchase drugs	Supplies Officer		200.00

PROJECT SUMMARY (Cont'd)

Project Title	Major Components	Executing Agency	Support	JNSP Budget Year 1
THE CONTROL OF PARASITES	Conduct parasite survey a. Random sample of population and survey design	Central Lab. Min. of Health	CFNI	
	b. Collect stool samples	- do -		150.00
	c. Analyse stool samples using the Kato thick smear technique Purchase binocular microscope	- do -	CAREC	
	d. Treat with antihelminths			300.00
	e. Analyse data	Min. of Health	CFNI/ CAREC	
	Conduct educational programmes in clinics; via the mass media and through pamphlet distribution	Min. of Health	CFNI	
	Distribute latrine units	Environ. Health, Min. of Health		3730.00
THE IMPROVEMENT OF MATERNAL NUTRITION	Collect data on lbw babies from hospitals and districts	Min. of Health		
	Conduct retrospective risk factor study of mothers discharged from the Princess Margaret Hospital	Nut. Unit, Min. of Health		750.00
	Test the CFNI table "Weight for height by week of Pregnancy"	- do -	CFNI	

PROJECT SUMMARY (Cont'd)

Project Title	Major Components	Executing Agency	Support	JNSP Budget Year 1
HOME FOOD PRODUCTION	Identify high risk households	Min. of Health, Agric.	Min. of Agric.	
	Purchase and deliver tools and seeds			750.00
INCOME GENERATING ACTIVITIES	Provide operating Guidelines to the Social Centre	Min. of Health	Women's Bureau	
	Identify groups	Social Centre	- do -	
	Provide funds to Social Centre for disbursement to groups	Min. of Health		3000.00
COMMUNICATIONS SUPPORT TO ALL PROGRAMMES	Prepare taped radio series in English and Patois	- do -	CFNI	
	Prepare educational material for public use	- do -	CFNI	
	Local radio sponsorship			1865.00
	Purchase Slide Projector	Supplies Officer Min of Health		

EXPLANATION OF TERMS

HEALTH TEAM

The Dominica Health Team is comprised of the District Medical Officer, Health Visitor, Family Nurse Practitioner, Environmental Health Officer(s), Nurse Midwife(s), Primary Care Nurse, Pharmacist and Driver. These persons form the central core of the Health Team; support staff such as dental auxiliaries, nutrition assistants and laboratory attendants may be part of the Team from time to time.

The Health Team is responsible for implementing Primary Care programmes at district level. These programmes include Maternal and Child Health and Family Planning, Immunization, School Health,Nutrition, Environmental Health, Medical Care, Family Life Education and Community Participation.

The District Medical Officer is officially designated as District Team Leader, and as such undertakes the administration and management of Team functions, assisted by a Management Committee from among the Team.

HEALTH COMMITTEES

Health Committees include individuals from community-based organizations and from other Governmental sectors. These include Teaching, Agriculture, Public Works, Community Development, Village Councils, Agricultural Workers, Church Organizations, Youth Groups and Sports Organizations.

They serve as the coordinating link between the health system and the community and ensure that there is a two-way communication flow thus providing the mechanism for successful community mobilization and organization and allowing participation by communities in taking action to enhance their health.

ST. VINCENT AND THE GRENADINES

PLAN OF ACTION FOR THE JOINT WHO/UNICEF NUTRITION SUPPORT PROGRAMME

prepared by

The Ministry of Health

with technical assistance from

Caribbean Food and Nutrition Institute

Pan American Health Organization
Pan American Sanitary Bureau, Regional
Office of the World Health Organization

December 1983

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PART I

BASIC INFORMATION

1. INTRODUCTION

The State of St. Vincent, with a total arable land area of 150 square miles/388 square kilometres, comprises the main island of St. Vincent and the small Grenadine dependencies of Bequia, Mustique, Mayreau, Canouan and Union Island, two other privately owned islands and nine uninhabited islets. It is an independent country, having moved from the status of Associate Statehood to full independence on October 27, 1979.

The islands generally are characterised by a rugged terrain of volcanic origin. The highest peak is on the mainland, St. Vincent, and rises above 4,000 feet on top of which is the crater of the still active La Soufriere volcano, whose eruption in April 1979 inflicted severe damage to the agricultural sector and necessitated the evacuation of thousands of people from the disaster area.

St. Vincent is 18 miles/29 kilometres long and 11 miles/17.5 kilometres wide and comprises just over 90% of the total land area. On the eastern(Windward) side, land slopes gently to the coast through undulating country with flat valleys, in contrast to the terrain on the West (Leeward) side which is rugged and deeply ridged with only narrow alluvial plains along the river courses. Main population centres are Kingstown, the capital in the South, Georgetown on the East coast, and Chateaubelair on the West coast and Layou to the South West, as well as Port Elizabeth on Bequia Island, represent other townships.

The population of St. Vincent and the Grenadines consists primarily of Africans with smaller proportions of East Indians, Europeans and Caribs. The total population was estimated at 121,000 in 1980 of which children under 20 years of age represented over 61.9%. The per capita GDP in 1980 was estimated at US$495.

Unemployment and balance of payments problems plague the economy of St. Vincent and the Grenadines. Agriculture constitutes the hub of economic activity in the State. It is the major earner of foreign exchange primarily through the export of bananas to the United Kingdom market. Other export crops include coconuts, carrots, sweet potatoes, yams ginger, arrowroot and smaller quantities of peppers, nutmegs, etc. In the Grenadines, fishing dominates the economic activity and exports to the mainland and elsewhere of fish, whale meat and oil, lobsters, conchs, provide income for major segments of the population as well as part of their diet.

The Ministry of Agriculture is currently implementing a number of food production projects aimed at increasing the level of food availability and reducing the dependence on food imports. Agricultural production zones have been established for specific crops such as onions, garlic, carrots, peanuts, pigeon peas, sorrel and tree crops. Plant propagation activities are continuing for the traditional crops such as avocado, cacao, nutmegs and mango, but a new emphasis is now given to soursop, sugar apple, golden apples and passion fruit. There is also an active programme of crop/livestock protection for farmers throughout the production cycle against pests and diseases. A fisheries programme is planned with emphasis on data collection, fish preservation, gear and craft improvement and maintenance, development of fishing cooperatives and training.

An active programme of training in all aspects of food production and distribution for both staff and the farming community has been planned. The training programme is being executed with support from other institutions and organizations with interest in agricultural development, including St. Vincent Arrowroot Association, the St. Vincent Banana Growers' Association (WINBAN), the Organization for Rural Development (ORD), the Women in Development (WAND), the Ministry of Education, the Development Corporation, the Caribbean Agricultural Research and Development Institute, the Community Development Division, Farmers Groups, the University of the West Indies (UWI), the Caribbean Food and Nutrition Institute (CFNI) and so on. UWI as executing agency for the Caribbean Agricultural Extension Programme (CAEP) provides technical/professional assistance in the overall development of the Extension Services of the Department.

The poor data base for agricultural planning is being addressed through improvement in the Statistical Unit which will provide information on production levels, analyse trends and make projections in the domestic production sector as well as the import/export sector. Surveys among farming communities are planned to generate the information relevant to the adjustment processes within a dynamic agricultural sector.

During 1981 - 82, CFNI developed a Proposal for assistance to conduct research, training and advisory services in food marketing in St. Vincent and one other West Indian island. The International Development Research Centre (IDRC), the United States Department of Agriculture (USDA) and PAHO/WHO are

funding the research component of this Proposal. The objective of this component is to evaluate the impact of food price and subsidy policies and practices and trade regimes on agricultural production, marketing and food consumption and ultimately nutrition and health status. The study started in January 1983 and will be for a two-year period.

The Organization for Rural Development (ORD), a non-profit, non-partisan organization, committed to improving the quality of life in rural areas, is involved in a number of programmes impinging on the food and nutrition situation. Its education programme emphasises basic nutrition, the planning and preparation of economical nutritionally balanced meals using local foods, and simple book-keeping systems for farms and small businesses. In the agricultural programme, emphasis is placed on provision of agricultural inputs such as fertilizer, seed, pesticides, tools, credit, breeding stock (sheep) and cornmeal processing (Annex I).

The industrial sector is as yet under-developed and consists essentially of flour milling, garment manufacture, reconstitution of milk, crafts and other light manufacturing industries such as sporting equipment, foam and plastics.

The dominance of bananas in the agricultural sector lends itself to the establishment of an industrial complex of great diversity. However, the major effort is towards the export of fresh fruit from which the return to the farmer is minimal.

St. Vincent and the Grenadines have reasonably good internal transportation systems through a fine system of roads. In some areas, however, the roads are in a bad state of repair and are probably responsible for high post-harvest losses in bananas during transport for shipment.

1.1. *Health and Nutritional Status*

The island registered a crude birthrate of 29.4 in 1980; thirty per cent of children being born to women under the age of 20. The infant mortality rate in 1980 was 41.2 per thousand live births.

A 1977 report on the nutritional status of young children in St. Vincent based on children attending Child Health Clinics, showed that 1.6% suffered from severe malnutrition, 6.2% were moderately malnourished and 22.7% mildly malnourished.

10.4% of the children had a low birth weight. Of the 1,848 children admitted to hospital during 1975-1980, 73.5% was for gastroenteritis, 25.6% was for malnutrition and 0.8% for both gastroenteritis and malnutrition.

A survey of breastfeeding practices among 50 newly-delivered women and 336 mothers with children under six months during 1979 revealed that only 5% of the mothers breastfed their infants totally (only breastmilk for the first four months). Mixed breast and bottle-feeding was practised among 82.1% of the mothers, while 12.9% bottlefed totally. In 58.3% of the children, the bottle was introduced as early as within the first week of birth.

The high cost of infant formula and the low incomes of many families limit the amount of formula that could be fed to the child. Over-diluted feeds, often with impure water, predispose infants to gastroenteritis and malnutrition.

No data are available by which to assess the nutritional status of school children. Weight for height data for pregnant and lactating women arising out of nutritional status assessment by Gueri (1979) of persons in a sample of evacuation centres (following the eruption of La Soufriere) revealed that on one end of the scale, overweight to obese ranges accounted for nearly 25% of the women while at the other end, nearly 2% were below 80% of the reference standard of weight for height. The high percentage of pregnant women (3.7%) in this latter category gives cause for serious concern as the probability of low birth weight babies <2500 g would accordingly be high.

From the limited data for pregnant and lactating women it is reasonable to assume that adults (male and female) in households from which they belong would portray similar nutritional characteristics - that is, of obesity on the one hand and protein-energy malnutrition on the other. Precise definition of the extent of the problem, however, is not possible.

There is no available data on the anaemia status of the population. A survey conducted by CAREC in 1983 revealed a high level of parasitic infestation among school children - 75% of children examined were infested with Trichuris (whipworm) and 37% with Ascaris (roundworm).

The lack of data precludes any sophisticated analysis of food availability. The crude estimates of food availability in St. Vincent in 1980 are 1643 kilocalories and 38.44 g protein per caput/day. These estimates compare very unfavourably with the 2250 kilocalories and 43 g protein per day required by the population. Seasonality in food supplies, coupled with maldistribution of available supplies due to differences in socioeconomic status of population groups, lead to certain segments of the population receiving much less than their basic nutrient requirements. The problem is compounded by maldistribution within households in which some members receive more than their just share of the available food, both in quantitative and qualitative terms.

The Government of St. Vincent, through the Ministry of Health, has this year made a formal request to the United Nations/FAO World Food Programme for assistance with a supplementary feeding project for vulnerable groups for approximately three years. The commodities to be distributed through the clinics are wheat flour, brown sugar, margarine and dried whole cream milk at a total cost of US$1,030,770. Other supplementary feeding programmes are conducted by the Salvation Army which provides hot lunches for 300 school-children in schools in Kingstown and the suburbs. The Anglican Church feeds 14 persons in its Day Care Centre for the aged poor.

The health services are centred around the General Hospital in Kingstown which has 211 beds. Fifty-four of these are reserved for paediatric cases. Twenty-four of the paediatric beds make up the Nutrition Ward. There are three rural hospitals with a total of 53 beds - (Chateaubelair 20, Georgetown 23, Bequia 10) under the control of the District Medical Offocer. In addition to these there is a 120-bed Home for the Aged Poor, a 144-bed Mental Health Centre and a 12-bed private hospital.

The State is divided into nine health districts - Kingstown, Calliagua, Mesopotamia, Biabou, Georgetown, Chateaubelair, Layou, Bequia and Union Island (See Map Annex II). Each health district is under the control of a District Medical Officer who is responsible to the Medical Officer of Health, who is based in Kingstown.

There are 34 clinics within the districts, 4 of which are in the Grenadines. Each is staffed by a resident Nurse/Midwife who conducts antenatal, postnatal and child welfare clinics, makes home visits and attends deliveries. In addition, the nurse assists the District Medical Officer during his weekly visit to the clinic. Some health clinics are also staffed by nursing assistants and Community Health Aides (CHA's). The CHA is an auxiliary health worker, who was introduced into the health services in 1974.

There is no trained Nutritionist in the Ministry of Health; a dietetic technician based at the Ministry of Health is responsible for implementing nutrition education programmes in the clinics/communities.

A national family planning programme, established in 1975 with assistance from UNFPA, is integrated into the country's Maternal and Child Health programme.

An immunization programme, sponsored by the Ministry of Health and the Brothers Foundation, is at present being undertaken. It is designed to provide total coverage for children 3 months to 10 years who will receive measles, DPT and polio; persons 11 years to 20 years will receive diptheria and tetanus toxoid.

The Public Health Department in the Ministry of Health is responsible for refuse collection. Refuse is collected daily in central Kingstown and weekly in the suburbs. In the rural areas, collection and disposal of refuse are primarily the responsibility of Town Boards.

The State is served by water closets, septic tanks and pit latrines. Recently a sewage system has been laid down in Kingstown. There are approximately 22,000 houses in the State - 2% are connected to the sewage system, 20% have septic tanks, 75% pit latrines and 4.8% have no convenience.

The Central Water Authority controls the water supply and water quality control is very limited. Only major sources are chlorinated and chlorine residual counts are done routinely.

On the mainland approximately 70% of all households receive water from public standpipes; 25% of the houses are connected to mains.

The Grenadines is serviced by a combination of systems - private wells, roof catchments, desalination plants and small surface catchment areas.

1.2. *Education*

There are 63 Government primary schools and 4 private primary schools. A number of these schools, principally the secondary ones, offer instruction in home economics. While illiteracy is relatively low, the literacy rate in 1970 was 95%; almost 80% of the population have not had more than primary level education. Pre-primary education is not provided by the Government but some subsidies are given and, more recently, a nursery school supervisor has been appointed to supervise a number of schools sponsored by voluntary organizations or run by private individuals. There are 26 such schools operated in homes or community buildings. There are also 11 day nurseries which cater for children from 0-5 years and which are run by organizations such as Canadian Save the Children Fund (CANSAVE), the Infant Welfare and Maternity League, the Red Cross and the churches. Most of the pre-primary schools and some of the day nurseries are very poorly equipped, but the day nurseries and some of the pre-primary schools have had the benefit of staff training at the CANSAVE sponsored Child Welfare Training Centre in Kingstown. Three Child Care Courses are held annually at the Centre - two for a six-month period each and one for an academic year. Nutrition education as well as placements on the paediatric nutrition ward are part of the students' programme.

There is a significant need for a well-integrated programme embodying health and family life education, nutrition and home economics. A new project has been developed with USAID/IPPF assistance, which should greatly accelerate progress in this very necessary activity. Through the Ministry of Education, food and nutrition (Home Economics) is taught to both sexes from age twelve at both primary and secondary schools. This subject is examinable at the CXC and is popular with both sexes. Within the Ministry of Trade and Agriculture, a Home Economics Unit has been established and undertakes a nutrition education programme emphasising the whole family. The farm family is being taught the greater utilization of farm produce through emphasis on food preservation for use when production is unavailable. Plans are afoot to relocate the Home Economics Unit to the Campden Park Experimental Station where more staff and kitchen facilities will form the basis of an expanded programme. New school-leavers will be recruited for the Home Economics Education

Programme. Both print and electronic media are used in the programme.

Through the Ministry of Health, nutrition concepts are incorporated into the Health Education Programme and community participation in all aspects of nutrition-related diseases is promoted. A breastfeeding promotion strategy has been developed but as yet activities are mainly confined to the clinics.

Two voluntary groups contribute to the Nutrition Education Programme. The Organization for Rural Development (ORD) emphasises nutrition, health care, family life and agriculture, as well as preparation of nutritionally-balanced economical meals using local products at community (village) level. The Community Home Economics Programme of CANSAVE focus on community awareness of and appreciation for local foods, nutrients and their functions, nutritionally well-balanced meals emphasising local foods and food budgeting.

1.3. *Assistance to Women's Groups*

The Community Development Division is involved in the organization of women's groups at the community level. The Division is responsible for the operation of 11 handicraft centres throughout the country, and a cottage industry programme for older persons. Ninety-five per cent of the participants are women, principally in the 18-22 age group.

1.4. *Intersectoral Coordination*

In 1981 the Government reactivated the Food and Nutrition Council with one of its objectives being the formulation of a comprehensive Food and Nutrition Policy for the State. (Annex III provides additional information on Food and Nutrition Councils). The Council, which comprises members from Health, Trade and Agriculture, Education, Information, the Chamber of Commerce, CANSAVE and the Salvation Army has prepared a first draft of the Food and Nutrition Policy with the technical cooperation of CFNI. The Policy will be ready for submission to Cabinet in early 1984. This document assesses the food and nutrition situation in relation to the causal factors, reviews and evaluates ongoing projects and programmes to solve the food and nutrition problems, sets out additional projects and programmes for incorporation into the National Development Plan, discusses implementation and evaluation procedures and recommends changes in the structure and functions of the Food and Nutrition Council.

The basic objective of the Food and Nutrition Policy is to ensure that all segments of the population receive adequate quantities of safe, wholesome and nutritious foods necessary for optimum nutritional status and dietary well-being through greater self-reliance. Attainment of such an objective implies an increased domestic production of foods to meet the greater proportion of the nutrient intake of the population, a socioeconomic system that fosters equity in the distribution of the food supply and indeed the economic gains of the development process, and a level of public awareness that permits rational food choices. The attainment of this objective demands a high level of commitment by several Government and non-Government agencies. The Food and Nutrition Council is responsible for coordinating and monitoring the implementation of the programmes/projects identified in the Food and Nutrition Policy.

PART II

OBJECTIVES OF THE PROGRAMME

Impact Objectives:

The reduction of infant and young child mortality and morbidity (below five years of age).

Better child growth and development (below five years of age).

Improvement of maternal nutrition.

Specific Objectives:

To improve/increase the coverage of the population with Primary Health Care activities carried out at the community level designed to better the nutritional status of mothers and young children.

To promote community development and participation in support of activities related to the improvement of food supply, health and nutrition.

To promote the convergence of activities of different sectors (agriculture, fisheries, welfare, health, education, etc.) involved in the improvement of food supply, health and nutritional status of mothers and children.

Operational Objectives:

To improve the training of the Community Health Aides and related personnel and support selected activities at the community level.*

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*The phrase "other related personnel" should be taken to mean persons working in health or any other sector, in governmental or non-governmental organisations

To strengthen the support and supervision given by the central and intermediate levels to health and other community based workers.

To strengthen the Health Information System (HIS) to facilitate programme planning, implementation and evaluation.

To strengthen community participation through activities initiated and conducted at community level.

To strengthen the Food and Nutrition Council and to support the implementation of the Food and Nutrition Policy.

PART III

ACTIVITIES

This programme will proceed in accordance with the following Plan of Action, maintaining the necessary flexibility for any changes which its effective implementation may warrant. A detailed programme is presented for the first year of the project with an accompanying budget. Programme projections have been made for year two, bearing in mind the need to make modifications based on successes or failures of the first year's programme.

COMPONENT 1. Support to the Food and Nutrition Council

GOALS: 1. Increase the capacity of the Food and Nutrition Council to keep food and nutrition problems under constant review.

2. Support the implementation of the National Food and Nutrition Policy.

Activities

1. Food and Nutrition Council Institutional Support and Management

A draft Food and Nutrition Policy has been developed in 1983 by the Food and Nutrition Council with assistance from CFNI. The document sets out succinctly the crucial elements of a comprehensive Food and Nutrition Strategy for St. Vincent and the Grenadines. The strategy addresses the basic objective of ensuring that all segments of the population receive adequate quantities of safe, wholesome and nutritios foods necessary for optimum nutritional status and dietary well-being through greater self-reliance. The attainment of this objective demands a high level of commitment to interministerial cooperation by several sectors including Agriculture, Education, Trade, Community Development, Health, Finance and Planning, and the various cooperative departments and institutions at the national and international levels.

The Food and Nutrition Council is responsible for monitoring the implementation of programmes/projects identified in the Policy and for the frequent evaluation and revision of the Policy. A Food and Nutrition Project Coordinator will be recruited to strengthen the administrative capacity of the Council to fulfil these functions. JNSP funds will be allocated for this post. However, by the end of the project, the Council will provide funds to continue this post.

Indicators

1. Food and Nutrition Council's workplan implemented.

COMPONENT 2. Support to Training of Community Health Aides, and Related Personnel; Management of the Programme

GOALS: 1. *Improve knowledge, attitudes and skills of Community Health Aides, related personnel and their supervisors*

2. *Strengthen community participation efforts in solving health and nutrition problems*

3. *Support the development and management of the nutrition component of Primary Health Care Services*

Activities

1. Support to Training of Community Health Aides and related personnel

A number of training activities will be implemented with the support of JNSP. Funds will be used to provide lunches to the participants and to cover costs of stationery and transportation. These training activities all impact on Primary Health Care Services particularly those supported in Component 3 of this document. The training activities are described below:

a. Two 1-week workshops will be conducted for 36 Community Health Aides. These workshops will seek to update participants on infant and young child nutrition. While the curricula of the CHA's and District Nurses include food and nutrition, many of these individuals are in the field without the benefit of current nutrition information and are not conversant with many of the new approaches to infant and young child feeding. The sessions will have a strong practical bias. Topics to be dealt with include early detection and treatment of PEM; monitoring using the Growth Chart; benefits of breastfeeding as well as problems associated with breastfeeding such as engorged breasts in the 3rd, 4th and 5th days after delivery; timing of introduction of appropriate complementary (Weaning) foods using locally available foods; prevention of gastroenteritis and treatment using Oral Rehydration Salts.

b. Three 1-week workshops for a total of 86 Nursing Assistants and District Nurses structured as that outlined above for Community Health Aides. Activities (a) and (b) will be coordinated by the Nutritionist, Ministry of Health. CFNI will be asked to assist with the planning and conduct of the workshops.

c. In support of the backyard garden project outlined in Component 3, two 2-day workshops for a total of 50 Agricultural Extension and Community Development Division workers will be conducted. Participants who pass on nutrition information to villagers in the course of their duties will be updated in nutrition. Since legumes will be promoted during the backyard garden project, emphasis will be placed on the nutritive calue of legumes and the complementary value of the cereal/legume combination in meals. This activity will be coordinated by the Nutritionist, Ministry of Health, CFNI will be asked to assist with the conduct of the workshops.

Indicator

Number of participants in each training activity

2. Support to the Development and Management of the Nutrition Component of Primary Health Care Programmes

The State has been without the services of a qualified Nutritionist for about five years. The present salary range is low and, therefore, unattractive to qualified individuals at the M.Sc. level. Some JNSP/CFNI STC funds will be used to supplement the Government salary for this post. This increment will be absorbed into the local budget at the end of the project. The resulting salary will be on par with those offered elsewhere in the Eastern Caribbean for Public Health Nutritionists.

The Nutritionist will be based at central level and will be responsible for the planning, organisation and evaluation of nutrition activities throughout the Primary Health Care System. He/she will also assume the role of Programme Coordinator for the JNSP and will receive an allowance from the JNSP/country budget.

As an interim measure, until the Nutritionist is employed,a STC utilizing JNSP/ CFNI funds will be recruited for a three month period to supervise initial data collection and to launch the programme.

There is also an urgent need to strengthen the support given at the intermediate level to community-based programmes. JNSP funds will be allocated to the training of two participants at the seven month Community Nutrition course to be conducted at the Barbados Community College from March 1984. The Course is being coordinated by CFNI with assistance from FAO. On the completion of the training programme, the two individuals,who are already in the Government service, will function as Community Nutrition Assistants. They will be involved in the promotion of food and nutrition activities at the community level.

A Field Operations Officer will be recruited to assist in the improvement of data collection through the Health Information System and in the supervision of JNSP supported activities. This will enable the Ministry of Health to have in place an employee who would receive training and experience in data collection and analysis and therefore could be assigned to the Health Statistics Unit at the end of the project. The training would be done locally with the assistance of CFNI. (The duties and responsibilities of staff are outlined in Annex IV).

COMPONENT 3. Support to the Primary Health Care Activities at the Intermediate and Community Level

Support will be given in the following programme areas:-

1. REDUCTION OF INFANT AND YOUNG CHILD MALNUTRITION

GOALS: 1. *Reduce the prevalence of Protein Energy Malnutrition in infants and children 0 - 5 years by 60 per cent in five years*

2. *Reduce hospital admission for gastroenteritis by 50 per cent*

3. *Ensure that 80 per cent of babies are fully breastfed for a minimum of three months*

4. *Ensure establishment of the timely introduction of appropriate complementary (weaning) foods. Eighty per cent of infants should be receiving weaning foods at four to six months.*

Activities

A. Improved Growth Monitoring

A programme aimed at reducing the incidence of Protein-Energy Malnutrition in infants and young children will be conducted through the establishment of better monitoring of growth status and consequently better detection of mild or moderate Protein-Energy Malnutrition with referral of severe cases for treatment.

At the present time, data on the health and nutrition status of <5 year olds is recorded during clinic visits throughout the 34 clinics in St. Vincent and the Grenadines. However, these data have not been collated for 5 years. During the first 3 months of the project, the Field Operations Officer and a Short-Term Consultant will be required to visit all the clinics and collate and analyse the data from the existing growth charts. In order to complete this exercise in three months, it would be necessary for staff concerned to visit clinics in different areas simultaneously. They would therefore need to use their private vehicles; a small allowance has been allocated for travelling and subsistence expenses.

Thereafter, nutritional status data will be collected through the Health Information System which will be modified to reflect more accurate information.

Growth monitoring in clinics through weighing and use of the Growth Chart has been an ongoing activity. However, monitoring the home by the Community Health Aides has been hampered by a lack of portable baby weighing scales. During the first year of the project, 42 Salter baby weighing kits will be purchased. In addition, 8 beam balance scales will be supplied to clinics where bathroom scales now exist. Funds will also be allocated to the production of new Growth Charts since the existing charts do not record breastfeeding and weaning practices.

During the second year of the project, growth monitoring will be further facilitated through the acquisition of 2 additional beam balance scales. A School Health Programme will also be introduced into some primary schools. Rapid physical examinations will be conducted on 5 year olds entering primary schools and the height/weight data thus collected will serve as an index of child growth and development in that age group.

B. Control of Gastroenteritis

The prevalence of gastroenteritis gives cause for serious concern. Out of 546 babies 0 - 3 months seen at health centres during July and September 1982, 274 cases had diarrhoea and in 159 of the cases, the diarrhoea was accompanied by vomiting. Of the 1,848 children admitted to the hospital during 1975-1980, 73.5% was for gastroenteritis, 25.6% for malnutrition and 0.8% for both gastroenteritis and malnutrition.

During the first year of this project, support will be given to a programme aimed at reducing hospital admissions for gastroenteritis. This programme will include the organisation of educational activities in the clinics/ communities and the provision of Oral Rehydration Salts (ORS). The education programmes will have the following components:-

- Education through the clinics using health staff
- Training of village health committees to conduct activities such as planning of group education sessions and advising on the correct use of ORS
- Weekly radio programmes utilizing tapes produced with assistance of CFNI.

Supplies of ORS will be obtained through the Control of Diarrhoeal Disease Programme (PAHO/WHO).

C. Improvement of Breastfeeding and Weaning Practices

During the first 3 months of the project, data on breastfeeding and weaning practices will be obtained from the clinic cards as well as from interviews and observations of mothers in homes. Thereafter, these data will be collected on a routine basis from Child Health Clinic records through the HIS which will be modified to accommodate this data.

JNSP will seek to strengthen the ongoing programme of education in clinics through the provision of additional educational material and equipment for listening to taped messages. In addition, food demonstration equipment will be provided to the four Area Health Supervisors. This equipment will be used by the Community Health Aides and District Nurses to carry out demonstrations in clinics and communities on the preparation of foods from the 'family pot' for the weaning infant.

Two Government Information Service time slots are provided by the local radio station to the Ministry of Health. These are 'Health Word' and 'Health Microscope' a 5 minute daily and 30 minutes weekly slots respectively. These will be used to intensify the public education programme. The Health Education Officer will coordinate this activity. CFNI will be asked to assist with the preparation of a series of programmes with the following message themes - Breastfeeding, Weaning, Use of Oral Rehydration Salts, Importance of Attending Clinic, Importance of Immunization, Value of Home Food Production, and so on.

A "Strategy to Promote Successful Breastfeeding" was developed in 1980 with funding from WHO and technical assistance from CFNI. Arising from this, a Breastfeeding Committee has been formed and is involved in the preparation of a manual for use in St. Vincent and the Grenadines. This project will provide funds to accelerate this exercise. CFNI will be asked to assist with the editing of the manual.

A mothercraft project will begin in the first year. It will be an island-wide project conducted by the District Nurses at mothercraft clinics in St. Vincent and the Grenadines. The objective of this project is to bring together in a social setting, mothers-to-be and family members including fathers-to-be, and with planned lesson sessions, attempt to get across to these members, several aspects of health care during the antenatal period, delivery and postnatal period.

An attempt will be made to bring about a positive attitude to good health habits, acceptance of breastfeeding and weaning foods utilizing locally available foods.

The methodologies that will be used include lectures and lecture/discussions, demonstrations, group discussions. A series of ten sessions, each thirty minutes long, will constitute one programme. The cycle will begin again to accommodate new mothers. In order to ensure better attendance, the mothercraft sessions will be held at a time separate from the routine Maternal and Child Health clinics. The four Area Supervisors will coordinate the programme and will be responsible for transporting the demonstration equipment which will be purchased from JNSP funds.

Projections for the second year include continued education and radio programmes, monitoring of the Breastfeeding Strategy and implementation of the procedures outlined in the Breastfeeding Manual, continuation of the mothercraft project and establishment of a breastmilk bank at the Kingstown General Hospital.

Indicators

1. Nutritional status - weight/age for under 5's
2. Nutritional status - weight/age for primary school children
3. Reduced admission to hospital for gastroenteritis
4. Coverage of Oral Rehydration Salts
5. Number of home visits
6. Rate of immunization
7. Number of babies being fully breastfed for 3 months
8. Number of babies introduced to appropriate complementary feeds at 4 - 6 months.

2. CONTROL OF ANAEMIA AND PARASITES

GOALS:
1. *Reduce the prevalence of mild to moderate anaemia (Hb. < 10.0 g/dl) in antenatals by 75% in five years*
2. *Reduce the prevalence of anaemia in pre-school age children by 50% in five years (Hb. <11.0 g/dl).*
3. *Reduce the prevalence of anaemia in school age children by 50% in five years (Hb. <11.0 g/dl)*
4. *Reduce the worm load in the population*

Activities

There is no available data on the anaemia status of the population. Haemoglobin (Hb) levels of pregnant women are determined at the Government Laboratory and recorded at antenatal clinics but this data is not collated. The Field Operations Officer and the STC will collate the data as part of the baseline assessment of nutritional status of vulnerable groups. Efforts will also be made to ensure that data on the Hb levels of pregnant women are collected through the Health Information System on a continuing basis.

In order to determine the feasibility of carrying out Hb determinations at clinic level, a programme was instituted in some areas of the Layou Health District, where the Family Nurse Practitioner has been carrying out determinations using a

haemoglobinometer. JNSP funds will be used to strengthen and extend this programme throughout the district. The Hb levels of women (15-44 years) and children (6months-15years) will be determined and treatment started promptly for anaemic individuals. Supplies of liquid ferric ammonium citrate and iron and folate tablets will be obtained through the JNSP funds. The efficacy of treatment will be examined through repeated Hb determinations. Due to the high level of parasitic infestation which was found in school children in the CAREC study of 1979, a deworming exercise will also be carried out in this district, under the guidance of CAREC. Supplies of antihelminths will be provided through the JNSP. A third component of this district programme will be the provision of pit latrines to the residents. There is an ongoing programme by the Ministry of Health whereby the latrine units are sold at a subsidized price and householders are encouraged to construct and to use these facilities. But the coverage of this programme is limited due to insufficient funds; the JNSP will seek to extend the coverage in this district.

R Radio programmes reinforcing the importance of sanitation and the control of anaemia will be conducted. CFNI will also assist with the production of educational materials for use in the clinics.

Indicators

1. Hb. levels
2. Number of pit latrines built and used
3. Worm load

3. IMPROVEMENT OF MATERNAL NUTRITION

GOALS: 1. Reduce the incidence of low birth weight babies
2. Reduce risks for child-bearing women

Activities

The percentage of deliveries in hospital is high and therefore dáta on birth weights will be collected from hospital records.

Activities outlined for the control of anaemia and parasites, educational programmes and home food production projects are expected to impact positively on women. In addition, the WFP will begin a supplementary feeding programme in 1984 in which a total of 2,420 pregnant and lactating women will be

supplied with Dried Skim Milk, margarine, sugar and wheat flour, distributed through clinics. The supplement is intended to provide 30% of the Recommended Dietary Allowances for protein and energy.

During the second year of the JNSP, the CFNI table "Weight for Height by Week of Pregnancy" which will be tested in Dominica, will be introduced into clinics for routine monitoring of nutritional status of pregnant women.

Indicators

1. Number of low birth weight babies
2. Number of women maintaining correct weight for term of pregnancy.

4. HOME FOOD PRODUCTION

GOAL: 1. *To improve family nutrition and to provide additional family income through the production of vegetables and legumes.*

Activities

In the first year, the target will be the establishment of 150 gardens in each of two pilot areas, Campden Park and Barrouallie (a total of 300 gardens in year 1). Provisional targets for year 2-5 are a minimum of 150 per year. By completion of the project, it is hoped that a total of 900 families will have established kitchen gardens with JNSP assistance. Additional families may also be motivated to establish gardens. A strong nutrition education programme to promote the use of home produced goods will also be implemented.

Seeds and fertilizer repackaged into smaller amounts (10lb. bags) will be made available at a subsidized price to the families. Inputs will be under the control of the Field Operations Officer, who will be responsible for distribution to families through the Health Team. Sprays for use in pest control will be made available on a rental basis.

Three levels of approach will be used to foster community participation:

(a) Person to Person

Community Health Aides and Agricultural Extension Workers will identify individual families among the "high risk" category who will be the main focus of the person-to-person contact, though all families reached by this means will be encouraged to start a garden.

(b) Group Approach

Groups will be used to facilitate transfer of inputs and technical skills. Community groups such as farmers groups and groups organised by the Community Development Division already exist.

(c) Mass Communication

Village meetings, field days and radio broadcasts will be used to create an awareness of the value of the backyard as a means of improving both family nutrition and family income. The value of locally produced foods in the family diet and in weaning will be stressed. Consumer education in the wise use of income in food purchase will also be included.

Indicators

1. Number of gardens established
2. Types of crops grown
3. Use of foods produced with assistance of project

5. INCOME-GENERATING ACTIVITIES FOR WOMEN

GOAL: 1. *To increase the number of women engaged in income-generating activities.*

Activities

The Community Development Division which organizes women's groups throughout St. Vincent and the Grenadines will be provided with funds in the sum of US$4,500.00 intended for disbursement to women's groups at community level.

Indicators

1. Number and type of projects implemented
2. Number of women benefitting.

PART IV

COORDINATION AND ADMINISTRATION,

MONITORING AND EVALUATION

COORDINATION AND ADMINISTRATION

The responsible agent for the JNSP will be the Ministry of Health. This Ministry will be responsible for planning of the programme. The Ministry will designate a Programme Coordinator who will be responsible for the supervision and evaluation of the programme's activities as well as the preparation of the necessary reports.

The Programme Coordinator will also be responsible for preparing the Yearly Progress Reports for submission to WHO/UNICEF through CFNI. The Programme Coordinator may request assistance from CFNI for this purpose, especially during the earlier years of the Programme

The Programme Coordinator will be assisted by a Field Operations Officer who will monitor the programme's activities in the field and assist with the collection of data as well as with the preparation of reports.

MONITORING AND EVALUATION

The programme will be monitored by CFNI, the UNICEF Caribbean area office and the CPC's Office, Barbados.

Evaluation of the progress achieved through the different components will be performed by the Ministry of Health, with the technical assistance of CFNI, CPC and the UNICEF Caribbean area office. This evaluation will be performed mid-way and at the end of the life of the JNSP.

TIME LINE OF JNSP. YEAR 1

ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12
COMPONENT 1 SUPPORT TO THE FOOD AND NUTRITION COUNCIL												
1. Appointment of Food and Nutrition Project Coordinator	→											
2. Finalisation of Draft Food and Nutrition Policy	→											
. Food and Nutrition Month										→		
4. Implementation of Work Plan		—	—	—	—	—	—	—	—	—	—	→
COMPONENT 2: SUPPORT TO TRAINING AND MANAGEMENT PROGRAMME												
1. Appointment of Programme Coordinator	→											
2. Appointment of Field Operations Officer	→											
3. Selection of Participants to 7-month Community Nutrition Course	→											
4. 2 1-week workshops for Community Health Aides					→							
5. 3 1-week workshops for 86 Nursing Assistants and District Nurses							—	—	→			
6. 2 2-day workshops for 50 Agricultural Extension Workers and Community Development Division.				→								

TIME LINE OF JNSP. YEAR 1

ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12
COMPONENT 3: SUPPORT TO PRIMARY HEALTH CARE ACTIVITIES AT COMMUNITY LEVEL												
1. Data collection - infant nutrition, breastfeeding practices, weaning practices, low birth weight data, analysis of data	—	—	—→									
2. Review of existing growth charts and the devising and printing of new ones	—	—	—→									
3. Modification of the HIS to reflect correct information	—→											
4. Completion of Breastfeeding Manual						—→						
5. Mothercraft project - antenatal care; care of the baby; postnatal care.	—	—	—	—	—	—	—	—	—	—	—	—→
demonstration in clinics								—	—	—	—	—→
ANAEMIA PROJECT												
1. Treat pregnant women, children and school children in selected districts				—	—	—	—	—	—	—	—	—→
2. Purchase and delivery of iron and folate tablets, ferric ammonium citrate and antihelminths.	—	—	—→									
3. Distribution of latrine units		—→										
BACKYARD GARDEN PROJECT												
1. Identification of households	—	—→										
2. Purchase of seeds, tools, fertilisers, (——) distribution (- - -)	—→			- - -	- - -→							
3. Monitor and evaluate				—	—	—	—	—	—	—	—	—→

TIME LINE OF JNSP. YEAR 1

ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12
INCOME GENERATING ACTIVITIES												
1. Provide guidelines for use of funds. Distribute funds -----	→	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - ->
2. Quarterly reports			→			→			→			→
COMMUNICATIONS SUPPORT												
1. Radio programmes - development of 3-minute slots			→	→	→	→	→	→	→	→	→	→
2. TV Programmes									→	→	→	→
3. Preparation of educational material			→	→								
PREPARATION OF ANNUAL REPORT												→

ST. VINCENT

BUDGET - Year 1

		US$
COMPONENT 1 - SUPPORT TO FOOD AND NUTRITION COUNCIL		
1. Institutional Support	- Salary of Food and Nutrition Project Coordinator (Full-Time)	4035.00
	Stationery and Supplies	500.00
	Sub Total	4535.00
COMPONENT 2 - SUPPORT TO TRAINING AND MANAGEMENT OF PROGRAMME		
Allowances	- Programme Coordinator (Part-Time)	2017.00
	Field Operations Officer (Full-Time)	4035.00
VEHICLE		7836.00
TRAINING		
	2 participants in 7-month Community Nutrition Course	12000.00
	2 1-week workshops for 36 Community Health Aides	2610.00
	3 1-week workshops for 86 Nursing Assistants	3730.00
	2 2-day workshops for 50 Agricultural Extension workers and Community Development Division	1120.00
	Stationery and Supplies	3360.00
	Filing Cabinet	370.00
	Sub Total	37078.00

COMPONENT 3 - SUPPORT TO PRIMARY HEALTH CARE ACTIVITIES

	US$
Data Collection	740.00
Growth Charts: Breastfeeding Manual - Production costs	600.00
8 Beam Balance Scales	1900.00
42 Salter Baby-Weighing Kits	262.00
Mothercraft Project	
Food Demonstration Equipment	1000.00
Baby Supplies	
Anaemia Project:	
Antihelminths - Mebendazole	1400.00
Liquid Iron - Ferric Ammonium Citrate & Iron & Folate tabs.	800.00
118 Latrine Units	2000.00
Backyard Garden Project (300 gardens)	
Seeds	400.00
Spray cans, etc.	335.00
Fertilizer	300.00
Insecticides	500.00
Allocation to women's groups for income-generating activities	4500.00
2 Tape Recorders	225.00
12 Recording Tapes	60.00
Miscellaneous	300.00
Sub Total	15322.00
TOTAL	56935.00

ANNEXES

ORGANIZATION FOR RURAL DEVELOPMENT

NAME:	Organization for Rural Development Post Office Box 827 Kingstown St. Vincent, West Indies
TELEPHONE NUMBER:	71298
CONTACTS:	Mr. Jethro Greene (Chairperson) Ms. Ersie Browne (Secretary) Mr. Hartford Abraham (Treasurer)
STATUS:	ORD is a voluntary, non-profit, Private Statutory Body incorporated in the St. Vincent House of Assembly in 1978.
ORGANIZATIONAL STRUCTURE:	ORD is manned by a Chief Coordinator, Divisional Area Coordinators and Village Field Corps (Extension Workers). The organization receives support from the Ministry of Agriculture and its team of Subject Matter Specialists, a Peace Corps Nutritionist, two French Agronomists and Canadian Crossroad Volunteers. ORD trains its own members with technical information. The Community Development Division, CARDI and other Governmental and non-Governmental institutions are involved with ORD.
MEMBERSHIP:	Three hundred volunteers made up of Vincentian farmers, housewives and rural workers.
NO. OF VILLAGES INVOLVED IN ORD PROGRAM:	26 villages
NO. OF FARMERS ORD WORKS WITH DIRECTLY:	900 farmers
ESTIMATED NO. OF DIRECT BENEFICIARIES:	17,000 people
ESTIMATED NO. OF DIRECT AND INDIRECT BENEFICIARIES:	35,000 people
ORGANIZATIONAL BACKGROUND	ORD is an active voluntary effort which relies on committed community leaders and teachers. It is governed by General Assembly representatives made up of participating village leaders.

ORGANIZATIONAL BACKGROUND (Cont'd): ORD receives assistance from overseas Governmental and private agencies. ORD is currently working with more than 900 farming families to increase agricultural production, improve nutrition and to support development projects undertaken by village committees. ORD has begun development education programs, provides production material, technical assistance and has introduced improved farming practices.

PROGRAMS

Presently, ORD operates fifteen programs divided into Education and Agriculturl sectors.

1. *Peanut Production (NC_2 Variety)*: The peanut program is aimed at increasing the cash income of approximately three hundred small farmers. Presently, sixty-five acres are under production and it is hoped that more than two hundred acres will be in the future. As indicated by our first phase, it is estimated that farmers may earn up to 2,500 net profit per acre.

2. *Village Seminars*: These seminars, held in the evenings, comprise of topics on Nutrition, Health, Family Life and Agriculture. Seminars are held by the Organization's field workers, supervisors and Central Committee members for farmers, housewives and workers.

3. *Food Demonstrations*: "Food and its uses" is an evening program emphasizing the preparation of nutritionally complete inexpensive meals using local foods.

4. *Record-Keeping Seminars*: A series of 3-day seminars which include lectures, discussions and exercises designed to expose people to basic accounting and bookkeeping practices are held for small farms and businesses.

5. *Agricultural Input Revolving Banks*: Fertilizer, gypsum, white lime, furadan, herbicide, rat poison, seeds and pesticides are provided to farmers at a low cost or on credit on a revolving bank program. Presently, ORD operates eight agriculture input distribution centres throughout St. Vincent.

6. *Tool Renting Centres*: Small centres are available to provide tools such as hoes, garden forks, etc., to farmers and householders on a rental basis.

7. *Animal Revolving Bank Program:* Ninety pure-bred black-belly sheep were acquired in 14 villages as a gift from Barbados. They were distributed to farmers as a breeding stock. ORD receives half of all offsprings from the farmers to enlarge the schemes. In addition, ORD provides stud services at thirteen locations to retain herd purity. ORD will add rabbits and milking goats to this program.

8. *Farm Credit Scheme* Up to $500.00 credit can be extended to farmers wishing to improve agriculture input revolving bank and tools revolving bank. Repayment is scheduled to correspond with harvest and sale of crops produced.

9. *Intercropping:* The farmers are encouraged to improve their present intercropping system which simultaneously fulfills a complex blend of agronomic, cultural and economic conditions peculiar to the individual's farm and family situation. In general, the farmer is urged to use the varieties they know so that they can modify their own cropping systems. The emphasis will be on green vegetables, corn and beans.

10. *Education Training:* A series of specialized training sessions are offered to ORD Central Committee members, village leaders, and outstanding workers on a veriety of subjects ranging from agriculture to management. Training is available both locally and overseas. This is part of the Organization's effort to build up a pool of subject matter specialists and general village trainers.

11. *High Lysine Corn, African Winged Bean, Legumes:* The Organization encourages farm families to grow and use these protein rich food crops especially in areas where inadequate animal proteins are not available to low-income families. The sale surplus also brings in much needed revenue.

12. *High Lysine Corn:* Corn is a high protein vegetable which was introduced by ORD four years ago. The protein content is twice as rich as the local corn and is comparable to meat and milk. High Lysine Corn will be marketed by ORD as a substitute for imported

meals. Shelled corn is to be required from farmers on contract basis.

13. *Backyard Gardening:* This program involves the utilization of backyards for growing green vegetables, i.e., cabbage, tomatoes, corn, legumes, The Organization's extension and volunteer workers promote backyard gardening and supply quality vegetable seeds at reduced cost and high-lysine corn seeds free of charge. Families are encouraged to grow their own vegetables to become self-sufficient and depend less on purchasing from local markets.

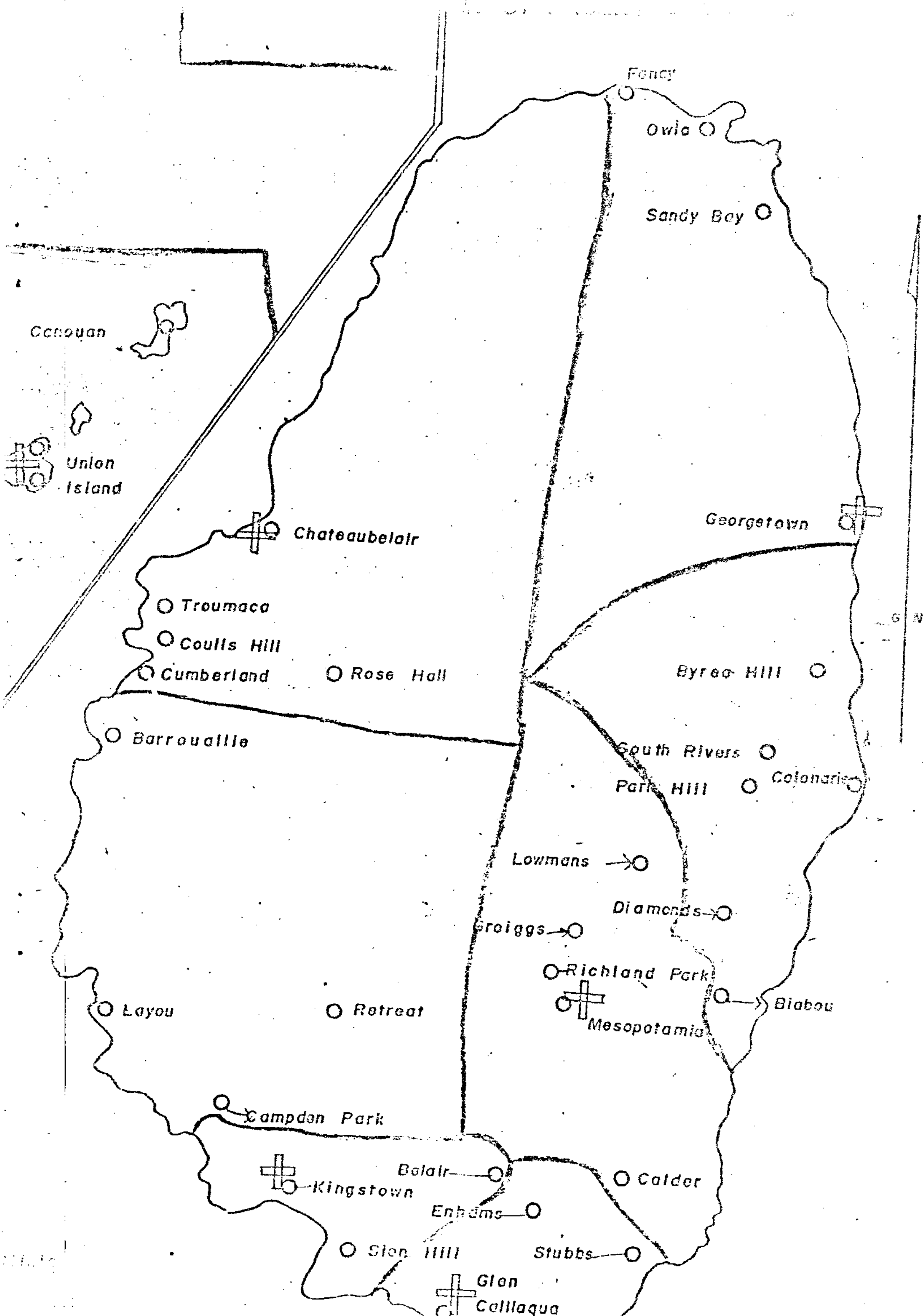
14. *Natural Pest Control:* This program aims at reducing the use of chemicals by employing the use of local cheap substitutes, companion planting, thus cutting back on productive costs.

15. *Organic Gardening:* The farmer is encouraged to observe detailed conditions of his farm, developing and testing new techniques and a recording system of organic farming techniques, i.e., use of manure, recycling process.

CONCLUSION:

International research conducted by various agencies indicates that farm families are capable of becoming more productive and economically independent It requires highly trained academic techniques to carry out research, prepare and conduct feasibility studies. It requires a different kind of expertise and rapport to deliver this research information to the target group so that it will be effective and implemented.

ORD represents the latter type of expertise.



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ROLES AND RESPONSIBILITIES OF STAFF

PROGRAMME COORDINATOR

1. Supervise and coordinate project-supported activities
2. Evaluate the impact of activities using the indicators outlined in the Plan of Action.
3. Direct the activities of the Field Operations Officer
4. Supervise data collection and collating of information
5. Liaise with the Food and Nutrition Council
6. Prepare yearly progress reports for submission to WHO/UNICEF through CFNI.

FIELD OPERATIONS OFFICER

1. Assist in the collection and analysis of data
2. Supervise the implementation of activities in the field
3. Assist the Programme Coordinator with the preparation of reports.

NUTRITION ASSISTANTS

1. Assist health staff and communities with the planning, implementation and evaluation of community-based activities
2. Assist in the conduct of in-service training workshops
3. Assist in coordinating public education programmes using the electronic and print media
4. Participate in research studies

FOOD AND NUTRITION PROJECT COORDINATOR (FOOD AND NUTRITION COUNCIL

1. Prepare an inventory of ongoing activities of different sectors and their stage of implementation for use as baseline data by the Food and Nutrition Council
2. Liaise with different ministries and private agencies to monitor progress of food and nutrition activities identified in the National Food and Nutrition Policy
3. Prepare regular progress reports for the Food and Nutrition Council.

SUMMARY

Project Title	Major Components	Executing Agency	Support	JNSP Budget Year 1
1. SUPPORT TO THE FOOD AND NUTRITION COUNCIL	Appoint Food and Nutrition Project Coordinator to coordinate activities of the sectors identified in the work plan of the Food and Nutrition Council	Food and Nutrition Council		4035
2. SUPPORT TO TRAINING	Fund two participants to the 7-month Community Nutrition Course in Barbados Community College to be conducted by CFNI with assistance from FAO	Ministry of Health	CFNI	12000
	Conduct 2 1-week workshops with a strong practical bias for 36 Community Health Aides on all aspects of nutrition; growth monitoring, demonstrations on preparing weaning foods using locally available foods, etc.	Ministry of Health	CFNI	2610
	Conduct 3 1-week workshops for 86 Nursing Assistants and District Nurses similar to those conducted for Community Health Aides	Ministry of Health		3730
	Conduct 2 2-day workshops for Agricultural Extension Workers and Community Development Div. on basic nutrition with emphasis on the nutrient value of legumes and the complementary value of cereal-legume mixtures in meals	Ministry of Health	CFNI Ministry of Agriculture	1120

Project Title	Major Components	Executing Agency	Support	JNSP Budget Year 1
REDUCTION OF INFANT AND YOUNG CHILD MALNUTRITION	Collect data on nutritional status of <5's from clinics and homes (through visits of Community Health Aides), breastfeeding practices and weaning practices.	Ministry of Health; Programme Coordinator; Field Operations Officer.	CFNI STC	
	Review and revise Growth Chart to include breast-feeding and weaning practices.	- do -	CFNI STC	
	Conduct radio series on aspects of above	Ministry of Health; Health Educator	CFNI	
	Complete and print Breast-feeding Manual & Growth Charts	Breastfeeding Committee	CFNI	600
	Conduct demonstration in clinics and communities on preparation of weaning foods using locally available foods	Ministry of Health		1000
	Conduct mothercraft project - infant care and food demonstrations	Ministry of Health		
THE CONTROL OF ANAEMIA AND PARASITES	Collate data on Hb. levels of pregnant women.	Ministry of Health	CFNI STC	

Project Title	Major Components	Executing Agency	Support	JNSP Budget Year 1
THE CONTROL OF ANAEMIA AND PARASITES (Cont'd)	Conduct project in Layou Health District. Pregnant women, children < 5 years, school children will participate. Hb. levels will be determined using a Hb. meter. Anaemic individuals will receive liquid ferric ammonium citrate (children) and iron and folate tablets (adults). Antihelminths will be provided where worm infestation is found. 118 latrine units will be provided to needy householders.	Ministry of Health	CFNI	4200
	Support programme with intensive mass media campaign.	Ministry of Health		
IMPROVEMENT OF MATERNAL NUTRITION	Collect data on incidence of low birth weight babies.	Ministry of Health	CFNI STC	
HOME FOOD PRODUCTION	Conduct backyard garden project in two pilot areas; Establish 300 gardens in year 1	Ministry of Health	Ministry of Agric. Comm. Dev.	1535
	Distribute seeds, fertilizer etc. at subsidised prices.			
INCOME GENERATING ACTIVITIES FOR WOMEN	Provide funds to Community Development Division for disbursement to groups.	Ministry of Comm. Dev.	Ministry of Health	