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REPORT ON

THE NATIONAL CONSULTATIVE MEETING

ON

FOOD AND NUTRITION IN

SIERRA LEONE

13TH-16TH OCTOBER 1980

Sponsored by USAID and Council for Health Education
and Nutrition (Sierra Leone).

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The Council is grateful to all the Guestspeakers Participants and Observers who participated so well through out the Consultative Meeting.

Many thanks also go to the Sierra Leone Broadcasting Service (Radio and Television and Information) for the full coverage given prior to and during the meeting.

Council is deeply appreciative of the untiring efforts of the Nutrition Subcommittee, for, without all the background work which it carried out this Consultative Meeting would not have taken place.

The good services rendered by the secretarial staff must be commended, particularly that of Miss Maisie During Typist attached to the Nutrition Unit Ministry of Health.

PREFACE

This report on the National Consultative Meeting has been compiled by the Nutrition Committee set up by the Council for Health Education and Nutrition following the National Consultative Meeting on Food and Nutrition held in October 1981.

The recommendations were presented by the working groups on:- Education.

Research

Nutrition Policy and Planning

Social Welfare

Health

Agriculture

The working group on Nutrition Policy and Planning ammended the working draft on the Formation of a National Food and Nutrition Commission presented by the Nutrition Committee. The ammended version was again presented to and ammended by the National Consultative Meeting on Food and Nutrition. The recommendation was then accepted as the main recommendation of the Consultative Meeting organised by the Council for Health Education and Nutrition.

Whereas the full text of the Opening and Closing Speeches, the Chairman's Remarks, and the Keynote Address are included in the appendices, summaries of technical papers presented during the meeting are in the main report.

It is hoped that this report would be a valuable reference document for Ministries and Agencies involved in Nutrition and related activities.

The Council for Health Education and Nutrition wishes to thank U.S.A.I.D. for making it possible for such a high powered Consultative Meeting to have taken place.

Dr. Belmont Williams,

Chairman,

Council for Health Education and Nutrition.

INTRODUCTION

The National Nutrition Consultative Meeting which was organised by the Council for Health Education and Nutrition (CHEN), was sponsored by USAID and GOSL held in Sierra Leone 13th--16th October 1980.

Two Consultants were provided by USAID and one by WHO.

This meeting was a follow up on one of the recommendations made by the Nutrition Committee set up by CHEN to study and make recommendations on the 1978 National Nutrition Survey report.

Objectives of Consultative Meeting

- i. To study the Report and Recommendation of the Nutrition Committee of the Council for Health Education and Nutrition.
- ii. To determine priorities in terms of action to be taken by or programmes to be developed by individual ministries and agencies based on the recommendation of this committee.
- iii. To consider the elements of a Food and Nutrition Policy for recommendation to Government.

Nutrition Committee Members

- | | |
|--------------------|---|
| Mrs. Pamela Greene | - Chairman - Nutritionist |
| Mrs. Eva Richards | - Vice Chairman - Principal Planning Officer Social Services, Ministry of Development and Economic Planning |
| Mrs. Gladys Carrol | - Secretary - Nutritionist, Ministry of Health |
| Dr. H. Thomas | - Project Manager, Bennimix Baby Food Project, Ministry of Social Welfare and Rural Development |
| Mrs. A. Davies | - Principal Social Development Officer Ministry of Social Welfare and Rural Development. |
| Dr. Gba Kamara | - Director, Maternal and Child Health Ministry of Health. |
| Mr. S. Lewis | - Senior Health Education Officer, Ministry of Health. |

- Miss S. Scott - Nutritionist, Ministry of Health
- Mrs. S. Harleston - Acting Assistant Chief Agriculturist, Ministry of Agriculture and Forestry
- Mrs. E. Elias - Acting Senior Organiser of Home Economics, Ministry of Education
- Mrs. E. Mason - Senior Fisheries Officer
Ministry of Natural Resources.
- Mrs. C. Spaine Cole - Health Sister, Ministry of Health

Consultants

- Dr. James Pines (USAID) - Vice President
Transcentury Corporation
- Mr. Robert Learmonth (USAID) Planner
Planning Assistance Incorporation
- Dr. M. Bohdal - WHO Scientific Secretary
Regional Food and Nutrition
Commission for Africa

USAID

- Miss Mellen Duffy - Nutrition Officer, REDSO USAID.

The Planning committee together with the USAID Consultants planned and co-ordinated the proceedings of the consultative meeting.

RECOMMENDATION BY MEETING

Preamble:-

- (a) Recognising the importance and significance of the findings of the National Nutrition Survey Report, October, 1978, which identified the basic and fundamental issue of Nutrition in Sierra Leone and the wide spread nature of malnutrition in all its forms;
- (b) Realising its central contribution to our high childhood mortality and morbidity rates, its highly significant effect upon the growth and education of our children and the socio-economic development of the nation;

- (c) Accepting the multisectoral nature of the causes of the problem and its solution;
- (d) Cognisant of Government's Prime Commitments to improving the nutrition of the nation, The National Consultative Meeting on Food and Nutrition, hereby strongly recommends the establishment of a National Food and Nutrition Commission with functions and responsibilities to formulate policies, plan, implement and coordinate programmes directed at improving the Nutrition of the Nation and that this Commission be placed in the office of the First Vice President to ensure the effective coordination and collaboration of all the sectors, organisation and institutions involved in this priority national issue.

Membership:- The Commission will be composed of a senior official from the 1st Vice President's and the following Ministries - Health, Education, Agriculture and Forestry, Trade and Industry, S.L.P.M.B., Natural Resources, Finance, Development and Economic Planning, Social Welfare and Rural Development, Information and Broadcasting, and the University. Non-Governmental Organisations will be invited but with no voting rights. It must be noted that although members from the above Ministries will be appointed by their respective Ministries, these members should be sufficiently senior to make commitments on behalf of their Ministries. Furthermore these individuals should be interested and knowledgeable about Nutrition.

FUNCTIONS:-

- (a) Represent Nutrition in the development process.
- (b) Formulate National Food and Nutrition Policies as guidelines for and co-ordinate the programmes of the different sectors and institutions involved.
- (c) The Commission will collect and assemble all relevant information and review various Ministerial plans, research and investigation to enhance policy formulation.
- (d) The Commission will draw up the terms of reference for its secretariat.

LOCATION:-

The Commission will be an autonomous body preferably attached to the office of the First Vice President.

SECRETARIAT:-

The Executive Secretary will be the liaison officer between the Commission and the secretariat.

- (1) Members of the secretariat will be drawn from various disciplines:-
 - (a) Food Technology
 - (b) Nutrition
 - (c) Agricultural Economics
 - (d) Public Health
 - (e) Public Administration
 - (f) Resource Economics and others, as shall be determined by the Commission.
- (2) The group recommends that the Development Secretary convenes a meeting of Professional Heads and Permanent Secretaries of the Ministries concerned to consider the proposal for the establishment of the Commission.
- (3) As sources of assistance the following International Organisations were proposed:- UNICEF., WHO., FAO., USAID., EEC., UNFPA., and others.

Nutrition and Policy Planning

Dr. J. Pines	-	USAID
Mr. R. Learmonth	-	USAID
Mr. V. Brandon	-	Ministry of Development and Economic Planning
Mrs. E. Mason	-	Ministry of Natural Resources (Fisheries Division)
Mr. Amadu Jalloh	-	U.N.D.P.
Miss D. Thomas.	-	N.A.O.
Mrs. Hastings Spaine	-	Ministry of Education
Mrs. E. Richards	-	Ministry of Development and Economic Planning
Mrs. E. Beresford-Cole		P.P.A.
Dr. P. Bulengo	-	W.H.O.

THE NUTRITIONAL PROBLEMS OF SIERRA LEONE

by Dr. N. Pratt

Introduction

Food and Nutrition investigations in Sierra Leone have been by and large of a sporadic nature. Isolated individual and/or group reports on food behaviour, nutrition and nutritive value of local foods came from a few completed studies, numerous incompleting studies and several observations in the period 1960 to mid 1970.

The largest proportion of reports dealt primarily with children under six years old, pregnant and lactating women. Following a National Nutrition Survey completed in early 1978 by the Ministry of Health (MOH) in cooperation with USAID through the assistance of the Nutrition Assessment Unit, University of California, Los Angeles, up-to-date information is now available on the nutritional condition of pre-school children. Little and more recent than 1971 is available about the other age groups. This paper indicates the nutritional problems that have been identified on the basis of the few completed quantitative studies for Sierra Leone as well as those which empirical data are lacking, but believed present by professionals in the field of Health and Nutrition. Also, a brief examination of the casual factors and associated factors is made.

1. Problems Identified

(a) Protein - Energy Malnutrition (PEM) of Early Childhood.

One of the major nutritional problems among pre-school children in Sierra Leone revealed in the MOH/UCLA Survey is Undernutrition arising from lack of protein and/or calories available to the body tissues. In Sierra Leone as a whole, 30.5 percent of the children aged 3-59 months are underweight. The condition is most prevalent in the rural areas, being 32.4 percent and least prevalent in Freetown where it was shown to be 18.3 percent.

The survey showed that 24.2 percent, i.e. 111,000 of the young children are chronically undernourished. By 5 months of age, 10.6 percent of the children are less than 90 percent of their expected height-for-age. The prevalence is lowest in infants but peaks between the ages of 1-2 years, and falls to a plateau between 21-59

months. The situation was the worst in the rural areas, where the prevalence rate was 26.6 percent. Generally, in the urban areas, the rate was 17.4 percent and in Freetown it was as low as 10.3 percent.

A significant finding for Freetown is that the prevalence of underweight is six times higher in bottled fed infants than in breastfed infants. Acute undernutrition which reflects a recent period of protein and/or calories deficiency usually having begun no more than a few weeks prior to the date of being only 3.0 percent. However, the rate was three times as high for children of 12-14 months of age. The survey was taken between November and March - the dry season when food was relatively plentiful compared to the 'hungry months' - the rainy season.

Age is an important factor associated with undernutrition. The first 2 years of life being critical especially after about 5 months. On the basis of all available literature on the nutrition status of pre-school children, the problem of protein energy malnutrition in this group has neither improved nor deteriorated since 1964 when the first quantitative nutrition survey by Blankhart was reported.

(b) Undernutrition Among Pregnant and Lactating Women

The MOH/UCLA Nutrition Survey revealed that maternal undernutrition, as defined by arm wasting prevails in about 6 percent of non pregnant and lactating women, but in pregnant women alone it is about 12 percent. The finding gives added weight to a number of estimated reports concerning this condition previously given by Health/Nutrition professionals. The survey result indicate that pregnant women could be nutritionally at risk and called for further statistically valid studies among this group and lactating women.

(c) Anaemia

On the basis of some representative studies among children and women of child bearing age, anaemia is a wide spread problem in the country.

(i) Children

58.1 percent of all children aged 6 to 59 months are anaemic as defined by low haemoglobin values. Among the group 24 to 59 months, the problem was still more common,

with 65.8 percent being anaemic. Again, the rural areas had the higher prevalent rates than Freetown. Identification of the condition by thin blood films examination indicate similar results for the entire country. Among children aged 6 to 59 months, there was an anaemic blood picture in 51.5 percent of the children. For the entire country, the survey classified 73 percent of the cases as mild, 26 percent as moderate and 1 percent as severe.

(ii) Pregnant Women

The various investigations in respect of this group were less detailed compared with those of children. According to the Annual Maternal and Child Health report for 1977, 16 percent of the 63,165 pregnant women who visited MCH Antenatal Clinics had low haemoglobin values. The recent Nutrition Survey, 1978, examined 65 pregnant women drawn throughout the country and 30.8 percent was anaemic with Hb values below 11g percent. There is a definite problem of anaemia among this group. However, how much of this anaemia is caused by dietary inadequacy is not known. It can be assumed that if the total caloric intake of pregnant women is low, as the underweight condition previously indicated for the group would suggest, then the intake of other nutrients must be marginal.

Nutritional Problems Other Than Undernutrition and Anaemia

(i) Angular Stomatitis

The condition which is a common manifestation of the deficiency of B complex vitamins was reported in some parts of the Southern Province by Thompson-Clewry. The study reported a prevalence in the range 17 to 19 percent among school age children.

(ii) Avitaminosis

According to the Annual MCH Report for 1977, this condition was observed in 18.3 percent of pregnant women with disease not associated with pregnancy and in 2.5 percent of pregnant women with diseases associated with pregnancy. Again, there is a lack of

complete data to adequately describe and assess the true incidence of the condition for the country as a whole.

(iii) Endemic Goitre

There has been some reported incidence of goitre in certain parts of the Northern and Eastern provinces. Blankhart, in a National Survey conducted in 1964 by the Ministry of Health, reported a prevalence of 9 percent among pregnant women in Kono and less than 1 percent among adults in the Northern Province. Some Professionals have also observed the disorder among pregnant women in the Northern Province.

(iv) Diabetes

Health professionals suggest that the incidence of diabetes is increasing in both Urban and Rural areas. However, data to support these observations are unavailable.

(v) Obesity/Hypertension

Cursory observation would suggest that large proportion of adult women are obese. The MOH/UCLA survey revealed that only 0.9 percent of mothers surveyed had tricep fatfold of over 25mm, which is an indication of obesity. It appears that hypertension exists in both rural and urban areas among all age groups. Again empirical assessment of incidence is absent.

3. FACTORS UNDERLYING NUTRITIONAL PROBLEMS
IN SIERRA LEONE

There is evidence that the nutritional status of the population has changed little in the last 20 years. On the basis of the numerous limited and the recent comprehensive National Nutrition Survey, it can be assumed that the causation for the major nutritional problems points to three main factors:-

- (a) Inadequate Intake of Diet
- (b) Ignorance of the Nutritional Needs
- (c) Poor Environmental and Personal Hygiene.

It is illuminating to quote directly the exact associations found by the MOH/UCLA survey with which the prevalence of malnutrition (undernutrition and anaemia) vary;

"the prevalence of undernutrition was found to be significantly greater when

- a household's source of water was a river rather than a tap or well;
- a household head was a male;
- a household head was a farmer;
- a child's mother could not read English;
- someone other than the mother was primarily responsible for the child's care and feeding;
- the mother spend comparatively less money at the market;
- a child was not born in a hospital or clinic;
- a child aged 3-11 months was receiving no other milk;
- a child 18-23 months was still breast-feeding."

The three main factors indicated can be seen to emerge clearly from these associations.

Concluding Remarks

Undoubtedly, the main factors outlined are those usually found as causing malnutrition in Third World Countries. For Sierra Leone, nutrition work in all its aspects still has a long way to go; there are several issues needing immense attention before the population is actually set on the road to changes in nutritional status. For instance, issues such as the extent and ramifications of marginal intake loads for calories and food constituents must be understood.

INTRODUCTION TO NUTRITION PLANNING

Dr. James Pines
Vice-President - Transcentury Cooperation

Dr. Pines presented the nutrition system through the following diagram.

The group followed the discussion.
He stressed:-

1. The importance of advocating more attention to nutritional problems even though other goals are also important.
2. The importance of looking at all of the major casual factors affecting malnutrition since it is a multi-sectoral problem.
Planning must be done together at both macro and micro levels in order to achieve goals.
3. The sectors must agree together on nutritional goals and plan together to achieve them.
4. Nutrition planning also includes nutritional review, trying to identify and improve the nutritional consequences of activities addressed to other cause.

DISCUSSION

The discussion emphasised:-

1. Defination of meal patterns.
2. Food planning and nutrition planning and how these two can be reconciled.
3. Food production versus Foreign Exchange.
4. Planning advocacy - decision makers and how to influence their decisions.

NUTRITION SYSTEM*
BY JAMES PINES

Leakages

1. Exports
2. Seeds
3. Spoilage, insects etc
4. Non-food uses
5. Animal feed
6. Over-consumption

PRICES → EFFECTIVE DEMAND → THE GOAL NUTRITION STATUS

Prices
Land Tenure

Soil
Water
Climate

Seeds
Fertilizer
Pesticides

Labour
Skills
Mechanization

Capital
Credit

Production
of
Nutrients
(Quantity,
Quality)

Flow
By product
&
by Nutrient

Distribution
1. Transport
2. Storage
3. Processing
4. Packaging
5. Marketing
6. Public
Distribution

Delivery
Purchase
Subsistence
and commercial

(Requirements, Allowance and
consumption, utilization)
Consumption :
Purchase
Preparation,
Intra family
distribution
Weaning habits
Breast feeding
meal patterns
Seasonality
Utilization
Digestion
Absorption
Metabolization

Physical con
sequences of
Malnutrition

- 1. Energy
- 2. Growth
- 3. Resistance (morbidity)
- 4. Mortality
- 5. Educability
- 6. Prevent Blindness
- 7. "Well-Being"

- | | |
|---|---------------------------------|
| 1. Income | 1. Environment |
| 2. Cultural patterns | 2. Medical Service |
| 3. Family size, Spacing
birth order, sex | 3. Habits |
| | 4. Combination &
Composition |
| | 5. Physiology |

Demography

Health
Sub-system

Imports
Donations

army
hospitals
jails
feeding

AFFECT ALL

1. Administrative Structure (and "human systems")
2. Government Policies & Programmes

Leakages

1. Over nutrition
2. Waste
3. Processing Losses
4. Export
5. Economic Loss

*This is not a complete schematic. It is intended to be illustrative of the system and shows only some of the factors involved.

NUTRITION PLANNING - BASED ON THE LESOTHO EXPERIENCE

Robert Learmonth - Planning Assistance Inc.

The Government of the Kingdom of Lesotho is committed to eliminating the conditions that cause malnutrition, especially after the National Nutrition Survey.

A food and Nutrition Co-ordinating Office (FNCO) was therefore established under the Prime Minister's Office, this is policy-making body of representatives of Government Ministries. Planning conferences are held yearly to develop projects to be included in the national plan.

One of the first activities of the organisation of the FNCO was a meeting for politicians and policy makers, to identify the causes of malnutrition, set goals and draw up a time table, over 200 goals and strategies were identified.

The second meeting was held to refine strategies and develop scientific projects. Nineteen projects were planned, a list of nutritional objectives, workplan, and a plan to monitor and evaluate the projects were also prepared.

Another session of interministerial meeting was held to coordinate all the activities for the nineteen projects, and to make each ministry aware of the role it has to play.

The FNCO also organised publicity programmes such as, competitions, radio and T.V. programmes. Leaflets were also distributed through out the country with the help of an aircraft, the leaflets were simply dropped from the aircraft.

The high rate of literacy 50% was a key factor in the campaign. AID provided substantial financial assistance for the execution of the projects using the identified strategies.

Nutrition rehabilitation centres were established to teach mothers how to feed and care for their babies after they are discharged from hospital.

Cautionary notes

- 1) Movement of executive officers from Ministries can frustrate plans.
- 2) Donor interest may clash with Government interests.
- 3) Plans must co-incide with National Planning cycle.
- 4) Yearly reviews and follow up vital.

THE USE OF WEANING FOODS IN COMBATTING MALNUTRITION

Dr. H. Thomas

The period of weaning from the breast is a critical one which often leads to malnutrition and disease if the child is not fed a diet that is adequate in both quantity and quality. Weaning foods which are complementary and supplementary to breast milk will need to be introduced from four to six months. These foods must of necessity be hygienically prepared and socially and economically acceptable. The weaning period is a traditional stage during which the child is getting accustomed to foods other than milk. It involves a gradual change-over from only breast milk to adult type foods. The latter may take the form of semi-solids, purees, gruels and solids. Weaning foods can be of vegetable or animal origin or both.

Factors to be considered in the selection of a suitable weaning food include nutritional composition, local availability of ingredients, safety from bacteria and toxic substances, acceptability and tolerance and feasibility of cooking.

Breastfeeding: Without a sound initial breastfeeding, in fact prolonged breastfeeding up to one year and even longer the introduction of weaning foods will be less significant. Breastfeeding is an integral part of the reproductive process and is an important biological and emotional basis of child development.

Weaning foods have been prepared and processed using locally available ingredients including in some instances, the local staple. They are low-cost food mixtures, some of which may be prepared at home in the form of double mixes, triple mixes or multi-mixes. The nutritive value of most plant proteins is limited by a deficiency of one or more amino-acids and by blending two or more different plant proteins, an adequate mixture can be obtained in terms of amino-acid balance.

The recommended daily allowance of protein for an infant is about 3 gm/kg. of body weight at birth coming down gradually to 2gm/kg. by the end of the first year. It is calculated that the average breastfed baby receives from 2.0 to 2.5gm. of protein daily for each kilogramme of its body weight. Various cows milk formulae supply the infant 3.0 to 4.0gm. of protein per kg. of body weight.

The use of local weaning foods in conjunction with prolonged breastfeeding become priorities in any national nutrition policy.

Marketing of commercially produced infant formulas whether local or imported should be in accordance with national or international codes.

Increased protein consumption will not only reduce the effects of protein deficiency which affects the physical and mental development of young children and threatens their life as well as those of other groups of the population, but will also reduce the recurrent cost of malnutrition through subsidies and food distribution.

NUTRITION EDUCATION AND TRAINING NEEDS

Mrs. Pamela Greene

One of the most important objectives of nutrition education is to help the individual understand his changing nutritional needs, the choices he has for meeting them, the distractions he may encounter the long-term effects of the different patterns he may choose in his daily use of food, and educating him to adopt better practices. More broadly speaking nutrition education aims at bridging the gap between the propositions of nutrition science and the capacity of human groups to satisfy their food requirements. Nutrition education is not an easy task for it is well known that acquisition of knowledge does not necessarily lead to change in behaviour. It requires motive and intension to make a change in a basic pattern of living.

Because nutritional requirements are fulfilled mainly through foods, teaching people how to meet body needs through appropriate selection of food is one of the main responsibilities of nutrition educators. But this is not enough. The food must first be available. The individual must accept the foods which provide the nutrient required, must then prepare them for consumption, must digest the food and finally the food must be utilized to build his body tissues and promote the proper functioning of the various organ. Failure at any one of these steps may lead to poor nutrition. For each step, a large amount of knowledge exists which must be imparted to the various target groups concerned.

Unfortunately the acquisition of nutrition knowledge and the value of this learning for equipping individuals to meet the challenge of survival and endurance have not so far been accorded the importance of other academic experiences - reading, writing for example. Ironically education in nutrition may prove to be more vital to the well-being of

learners than any other academic pursuit currently emphasized in schools and it is on this that the ability of our various vulnerable groups to survive, may well depend. Those of us who are concerned with nutrition education can describe our work in terms of a model social diffusion process. Our task is to:-

- (a) Create awareness of the problem
- (b) Stimulate interest in the solution
- (c) Encourage trial of the solution
- (d) Influence favourable evaluation of the trials
- (e) Lead up to adoption and change.

The process applies to society as a whole as well as to the individual. But the task can only be accomplished through integrated approach which engages all fields of society in a concerted and coordinated effort to attain the objective.

This conference marks an important milestone in the history of nutrition in Sierra Leone. In 1967 the first interministerial nutrition conference was held at Njala University College during which several recommendations were made pertaining to nutrition education and training.

Looking back to the beginning of our national concern for nutrition one can definitely see the pioneering role of our Nutritionists, Home Economists, Paediatricians, Nurses, Health and Social Workers and their increasing responsibilities through the years. A tremendous effort has been made despite the very limited resource and trained manpower.

What seems to me to have been the most important achievement is that it is no longer a question of a few experts in our society talking about proteins, vitamins and diets. We have begun the process of making other people understand that nutrition is not only an academic matter but a thoroughly practical consideration concerning every single person in the country.

One can safely say that there is a general awareness by the public that food plays an important role in health of the individual and that different kinds of food are needed in the diet in order to achieve good health, especially that of children. A significant contribution to that increased awareness has been due to the extensive use of the media - radio, T.V. and press in communicating basic nutrition information also through the Council for Health Education and Nutrition annual (now biennial) exhibition in the Western Area. This activity which normally lasts for

one week attracts people from all walks of life and all ages and provides an excellent opportunity for educating mothers on child nutrition and infant feeding as well as provide learning experience for school children. This activity is valuable for the cooperation and collaboration it affords between the various ministries and agencies involved with nutrition programmes. It should be held more often and in fact, each province should organise its own so that more of the rural population could be reached.

Secondly several Ministries and Agencies have established ongoing nutrition education programmes directed to various target groups. The activities of CARE and CRS are worthy to be mentioned. The Ministry of Health through its Nutrition Unit and MCH programme has made an enormous effort in nutrition Education. The Ministry of Social Welfare's Home and Family Nutrition Programme which was the spring board for the development of the Bennimix, as well as its community development and women's programmes have provided training and education for its workers and volunteer leaders in almost every community in Sierra Leone. The Ministry of Education encourages nutrition education in the primary and secondary schools and in all teacher training and University Colleges offering home economics programmes. The school feeding programme which is no longer in operation was an excellent method of educating the children on good food habits as well as providing, them with a good balanced meal a day.

Apart from the three teachers colleges and Njala University College where some foods and nutrition courses are offered to home economics students some other training programmes in nutrition are those of the Ministry of Health for Nurses at the at the National School of Nursing and the Ministry of Social Welfare and Rural Development for social workers in Bo. Apart from the normal preservice training programmes these Ministries organize inservice training activities for staff of various levels locally. Fellowships for special courses and short study tours have been offered to senior middle and field level personnel of these Ministries. The Ministry of Education also from time to time organizes inservice courses for home economics teachers only. CARE and CRS do make quite a significant contribution in training of their field staff as well.

Each Ministry concerned with nutrition should have staff qualified in nutrition to carry out the nutrition functions as recommended in the sub committee report. Unless the Nutritionists are given a chance to demonstrate what they have been trained to do much may not be achieved in the years following this conference. In order to implement most of the recommendations of this conference it is impe-

rative that immediate steps be taken to recruit persons already trained to take up the recommended position, and where possible persons already in employment could be selected and given added training to make them more capable of implementing the nutrition programmes of the Ministries and agencies concerned.

To date though there are two qualified Nutritionists and Nutrition trained sisters in the Ministry of Health, there is not a single dietitian - attached to any of the hospitals throughout the country. Ideally there should be at least one dietitian to one hospital. It does not seem fair for the nurses and matrons to be overloaded with added responsibilities of prescribing diets and attending to patients meals. Dietitics is a specialized field and requires indepth training and practice, and opportunities must be provided to facilitate this need for dietitians in our hospitals. It is granted that the present system has survived due to the effort of the Nutritionists and health sisters but persons are clearly overloaded with other responsibilities and the situation may become acute if action is not taken now to remedy the situation.

WOMEN'S INVOLVEMENT IN AGRICULTURE

Mrs. S. Harleston.

In order for one to recognise and appreciate the extent to which women are involved in agriculture, I need to outline briefly some general background information.

The involvement of women in agriculture is affected by many factors; some of which are socio-economic, tradition, education, religion, geographical location and the willingness to accept changes.

In 1975, midway through the United Nations Development Decade a Seminar took place in Mexico City. That seminar was attended by 85 women and men from 55 countries.

The objectives of the Seminar were:

- (a) "To show how and why development projects have often failed to reach women and to emphasise the waste of human potentials which have resulted from ignoring women's contribution to economic and social growth".
- (b) To assemble people who are involved in the design and implementation of development plans.

Participants were requested to provide brief case studies to illustrate some programmes succeeded in reaching women while others failed.

Margaret Mead called attention to the fact that women have been denied access to modern agricultural machinery. She also pointed out that the U.S. Model Agricultural Training has emphasized the male-dominated field of scientific production while it neglected the important fields of nutrition and food processing.

The ways new technologies have been introduced by development agencies have tended to undermine women's traditional roles. Small implements such as pressers, grinders, haulers etc. are introduced to men even though the work which they are to substitute, traditionally has been done by women. One is led to ask the question "Why cannot the women be taught how to operate these implements"? Therefore, the notion that the operation of machinery is the sole pre-rogative of men must be changed.

In those parts of the world where pre-agricultural revolutionary conditions prevail, women are still the principal producers of food. Traditional agricultural production which still exists in Africa requires labour as an important input and this is generally provided by women.

Apart from the most physically demanding tasks of felling large trees, brushing and stumping, women dominate in activities such as weeding, harvesting and food processing.

Ester Boserup has given very useful information about male and female work input in African farming in a number of local case studies. On the whole, the number of women taking part in agricultural work was found to be higher than men. Among the reasons given are:

- (a) Older men can stop working, leaving the work to their younger wives and children while old women who are widows continue to work hard.
- (b) More boys in rural communities go to school than girls.
- (c) More young men than women migrate to towns and work for wages.

Therefore the agricultural labour tends to be predominantly female. In some areas women work for longer hours per day and more days than men.

As shown by samples in the Gambia and Uganda, men worked for less than 10 hours a week in agriculture; while

in Congo (Brazzaville), parts of Uganda and Kenya, women are found to do agricultural work for about 25 hours a week.

Let us now look at Sierra Leone which is no different from many other developing countries. Rural women spend about three quarters of their time in agriculture as shifting cultivation still predominates.

Dunstan Spencer made a case study on 'Africa Women in Agricultural Development'. This study was done in the Eastern Province which is the seat of the first integrated Agricultural Development Project in Sierra Leone.

In his conclusion, Spencer showed that women worked slightly harder in the development project but the increase in their work load was slightly less than that of adult males and children. He also noted that as in Malawi women in Sierra Leone play a substantial role in the cultivation of swamp rice, using improved technology within the Integrated Agricultural Development Projects (IADP).

Although women have traditionally been involved in the national agricultural activities in the rural areas, men are given priority when it comes to formal training. Where women have been successfully trained, the men are still hesitant to accept and give them equal responsibilities.

Rural Extension Services have, up to recently been staffed and attended by men only and have therefore failed to reach the women. Cooperatives and Lending Bodies have assumed that farmers are males. Thus men have had access to credit while women in subsistence sector have been left out.

Even though rural women have not had any formal training or education in agriculture, they are responsible for the production of a good percentage of the local food eaten in both the urban and rural areas. Therefore, with some education and formal training in the field of agriculture, women are bound to play more significant roles in Agricultural Development.

INFLUENCES ON ENVIRONMENTAL FACTORS ON NUTRITIONAL STATUS

Mrs. F. N. Dahniya.

Introduction

The Nutritional status and health of all people are affected by the food they eat. Both the amount and the kind of food are important. If there is not enough food, people obviously are hungry but abundance of food does not in itself guarantee that they will be well nourished.

Websters third New International Dictionary defines environment as the surrounding condition, influences or forces that influence or modify the whole complex of climatic edaptic and biotic factors that act upon an organism or an ecological community and ultimately determines its forms and survival.

Thus we can look at our environment in two ways namely the immediate surroundings of our communities and the larger environment that includes climate and soil.

The Influence of Climate and Soils on Nutritional Status

The quality and the kind of food available to a community determine the general nutrition of the people. Many environmental factors control the amount of food.

Rainfall - is the most important environmental factor influencing agricultural production. We are generally interested in rainfall as the main supplier of soil moisture for crops. The extent to which the rainfalls in any area can provide soil moisture available to crops depends on the total amount of rainfall and the seasonal distribution.

If the amount of rainfall is too much there is flooding, and this has an adverse effect on crop production. If there is not enough water there is drought and water deficiencies may not only decrease yield but in very severe cases of drought, there may be no yield at all as has happened recently in the Sahelian region of Africa. This results in mass starvation and the effects on the nutritional status of the community is catastrophic.

About two years ago in Sierra Leone, there was an attack of army worms which devastated the rice crop, necessitating the importation of large quantities of rice to avert starvation. When such insects break out and destroy our staple food crop, the amount of daily food intake by the people is drastically reduced and this has an adverse effect on the nutritional status of the people.

In Sierra Leone, the temperatures and humidity favour the proliferation of micro-organisms and moulds and because of that the possibilities for food contamination with pathogenic micro-organisms and parasites are very high.

The spoilage of foods is a fairly common phenomenon. The primary causes of this spoilage are micro-organisms. Food has both a positive and negative effect on health. On the positive side, there are the complex and imperfectly understood effects of food in long life, vigor, mental alertness, and resistance to disease. On the negative side, there are hazards from swallowing food-borne organisms or poisons. Many of these hazards are peculiarly due to the product of the environment and in part may be due to the idiosyncrasies of the food or the person fed.

Many soils in this country on which crops like rice and cassava are grown are upland, gravelly, poor in fertility and low in water-holding capacity. Also because of our high rainfall, soil erosion is actively promoted. Under such conditions, yields are low.

The Immediate Environment and Nutritional Status

The nutritional status of a community is greatly influenced by the condition of the immediate surroundings.

Solid wastes, useless, unwanted or discarded materials serve as good media for breeding of various kinds of insects, various flies breed near houses when there are solid organic wastes in the vicinity and can be vectors as well as the source of pathogenic micro-organisms and parasites, the carriers of diseases.

Most communities in Sierra Leone depend on streams as the source of water supply. Many of these streams are contaminated and may carry infection from human or animal waste. There is also the possibility that some of these streams particularly in the Eastern Province may be contaminated with agricultural chemicals because of the increased use of these chemicals in the cocoa and coffee plantation.

Water-borne diseases like typhoid fever, the dysenteries (amoebic and bacillary), schistosomiasis and cholera may result from the use of water from contaminated streams and these undoubtedly have very adverse effects on the nutritional status of the people. The digging of wells for drinking water and the construction of pit latrines could help alleviate this problem in our rural communities. However, latrines and wells must be as far apart as possible so that the wells could not be contaminated by micro-organisms from the latrines. Environmental hygiene, particularly food hygiene is very important especially in the rural areas. This should be given high priority when planning measures for the improvement of our environment and standard of living.

NUTRITION SURVEILLANCE

Dr. James Pines and Mr. Robert Learmonth.

Nutrition Surveillance has become a subject of increasing concern to both national governments and technical agencies involved in Nutrition, Health and Agriculture. Surveillance is needed particularly in countries where the food supply and nutritional status of vulnerable groups is marginal. Unfortunately the system for collecting statistical data is also often weak in these countries and even when the data is collected it is sometimes poorly utilized.

Nutrition surveillance should be seen as providing an early warning system of nutritional problems. It should aim at providing on-going information about the nutritional situation of the population (especially the vulnerable groups). The collection and utilization of this information will help to determine the policies or programmes to be formulated so as to improve the food situation and nutritional status of the people in general but vulnerable groups in particular.

Surveillance is a continuous process which should

- a) identify those at risk
- b) identify causes of malnutrition.
- c) facilitate decision making by Government regarding programme priorities.
- d) predict on-coming nutrition problems or a disaster based on current trends.

There are a variety of information that need to be collected, and the information decided upon will depend on the particular area or country. Information on the following may be collected - Rainfall, Vegetation, Demography, Agricultural production, Income, Food consumption, Health and Nutritional status. In this context information on Health and Nutritional status are of great importance.

These are some of the questions that need to be answered - who is?, why?, where?, How many? regarding malnutrition. The type of malnutrition also needs to be determined. Therefore before any Nutrition Surveillance System is set up there needs to be an initial survey or assessment of the people and area where the system will be set up.

The setting up of Nutrition Surveillance System calls for a multidisciplinary approach, the services of International Agencies may be sought. This exercise calls for a

lot of careful and detailed planning if the system is to be of use to the country or community. It should for example ensure that information obtained is used to produce action directed towards groups under surveillance. Therefore it is advisable to collect only the very useful and utilizable information.

POPULATION DYNAMICS IN RELATION TO FOOD AND NUTRITION

DR. B.S. KANDEH

POPULATION DYNAMICS

There are three basic demographic components within human populations which cause population to have a dynamic nature. These are the processes of fertility, mortality and migration.

Fertility which is the occurrence of live births, adds children to the existing population in a country. The rate at which this addition takes place varies from country to country and in the case of a single country it changes over time. The index most commonly used to measure this rate of addition is known as the crude birth rate and it shows the number of children added in a particular year to every 1000 persons in a country. The Crude Birth Rate is high in most developing countries; for example the estimated crude birth rate for Sierra Leone is 44 per 1000, Sweden in 1969 had a crude birth rate of only 14 per 1000.

In the case of mortality which is concerned with the occurrence of deaths at all ages, individuals are subtracted from the existing population. The index most commonly used to measure the rate at which individuals are being subtracted from the population is known as the crude death rate and it shows the number of persons out of every 1000 who die in a particular year. For example Sierra Leone has an estimated Crude Death Rate of 20 per 1000 based on the provisional results of the 1974 Census; while Japan in 1969 has a Crude Death Rate of only 6.7 per 1000.

Finally migration which is the movement of people from one area to another involving a change of residence, both adds to and subtracts from existing populations. Because of this dual effect of migration, the net number of migrants (those moving in minus those moving out) in an area is used to show the over all effect of migration on the population.

THE EFFECTS OF FOOD AND NUTRITION ON POPULATION DYNAMICS

Nutrition plays a very significant role in mortality. This is due to the vicious circle connecting malnutrition and infections, especially in children. Bo Vahlquist states that there is now ample evidence to show that malnutrition influences the course and the outcome of infections. From the available evidence it is quite clear that the crucial factor is the poor nutritional status of the children which reduces their resistance to disease. The results of the National Nutrition Survey indicated that for all of Sierra Leone, more infant and child deaths were likely to occur in those families that had an undernourished child under-five years (determined by being either chronically undernourished, underweight or by showing arm wasting) than in those families without an undernourished child. The mother's nutritional status during pregnancy is also very crucial as it affects the birth weight of babies which in turn affects their chances of surviving early childhood as the lower the birth weight the higher the probability that the child will not survive infancy.

The overall effect of low nutrition levels on mortality is that it increases the rate of mortality in the community and especially the rates of infant and child mortality. This high level of mortality in turn directly or indirectly contributes to the prevalence of high fertility levels. On the one hand parents will have large numbers of children as they are not sure how many of their children will survive or they might try to replace a dead child by another live birth. On the other hand and this is especially true of societies which practice breastfeeding, the death of an infant will result in the cessation of breastfeeding, a shortening of the period of post partum amenorrhoea and an earlier exposure to conception that would have been the case had the child survived infancy. This resulting high fertility further impairs the health of both mothers and children, as women continue to give birth at ages (30 years plus) when the risks of pregnancy and delivery complications are high and also the risks of giving birth to low birth weight babies are high.

The effect of nutrition on the rate of population growth is twofold. In a situation where both fertility and mortality are high then the rate of population growth will be slow. However when the two rates start to decline, evidence has shown that the crude death rate is the first to start declining and its rate of decline is much faster than the crude birth rate. So that in a situation where the nutritional status of the community has been improved to the extent that the synergism between nutrition and infections is reduced leading to a reduction of infant and

child deaths, the crude death rate is also considerably reduced. However, the crude birth rate remains high even though some of the reasons for having large numbers of children are changing. As a result there is a rapid increase in the rate of population growth.

THE EFFECTS OF POPULATION DYNAMICS ON FOOD AND NUTRITION

Rapid childbearing which results in high levels of fertility affects the distribution of food and other resources within the household with limited resources to start with now has to divide these resources among more and more children. Furthermore, when the mother gets pregnant before weaning the current child, the current child is prematurely and abruptly weaned and exposed to the risks of malnutrition.

Migration, especially rural-urban migration affects food production in traditional societies where the majority of the population is engaged in subsistence agriculture. This is because those who tend to move out of the rural areas to the urban areas are young adult males leaving behind only the women and old persons to carry out the subsistence farming. Since agriculture is very primitive and very little surplus is provided, the removal of these young men from the rural areas will reduce the per capita food production, which will in turn lead to a reduction of the per capita food consumption.

When rapid population growth is taking place as a result of mortality decline, it not only increases the total population of an area, but also increases the percentages of young persons. One characteristic of such young persons within the population is that they are mostly consumers and are therefore dependent upon the food and the resources provided by the adult working population. Furthermore it is particularly these young persons who need adequate amounts of nutritious foods to ensure their healthy mental and physical growth.

THE SITUATION IN SIERRA LEONE

The provisional results of the 1974 Census have helped considerably in providing more information about the level of mortality in Sierra Leone. The estimated infant mortality rate for Sierra Leone is 238 infant deaths per 1000 live births.

Malnutrition definitely contributes significantly to these high levels of early childhood mortality in Sierra Leone, as has been pointed out by the recent National

Nutrition Survey. Kandeh in his study of five chiefdom headquarters in Bo district discovered that the leading causes of death for children 1 to 4 years old were Measles and Diarrhoea related diseases . He attributed the high percentage of deaths due to Measles and Diarrhoea related diseases to the effects of malnutrition.

The National Fertility and Family Planning Survey carried out in 1969 to 1970 showed that the average number of children a woman would have by the time she reached menopause was 7 for Sierra Leone as a whole, 8 for the rural areas, and 5 for the urban areas. These results indicate high levels of fertility which may possibly partly be due to the high levels of infant and child mortality already described.

Is there a food problem in Sierra Leone today and if there is, is it going to be exacerbated by population growth? A more realistic answer to this question should emerge in a few years, when the Ministry of Agriculture and Forestry completes its agricultural Census. The Ministry has just recently completed an evaluatory survey of the land resources of the country. From this an assessment can be made of the potential areas for farming and we can more realistically determine whether in terms of available land resources we face any immediate problems of increasing food production. While all this is being done though, we continue to import large amounts of our staple food, rice and subsistence farmers are faced with seasonal food shortages.

Even though sufficient food may be produced by the subsistence farmers, there is an urgent need to increase the surplus to ensure the availability of food all year round. The Sierra Leone Government has been striving to achieve just that by its initiation of several agricultural projects now covering almost the entire country that are geared towards increasing production levels.

ECONOMIC ISSUES
AFFECTING AGRICULTURE AND NUTRITION IN SIERRA LEONE
by I. I. May-Parker

Introduction

Agriculture contributes the largest proportion on the country's economy in terms of GDP and employment although much of the farming done is at subsistence level.

Sierra Leone's agriculture is based on long established traditional methods of production mainly the shifting cultivation method with a fallow system. Over the years the system has become inefficient, with a resultant decrease in productivity as against increase in population and demand.

Food Production

The prevailing farming system has outlived its usefulness and cannot in its present form produce enough for food and export. To meet this shortage under the present economic situation there is the need to adopt a balanced approach to food and cash crop production in our agricultural development programmes to satisfy both balance of payment problems and nutritional needs. In this direction it is necessary to establish policies and programmes for expanding production of food crops based on an estimation of the present food consumption levels and projections of future demands.

Some of the factors affecting improvement in essential local foodstuff are:

- (1) Technical factors
- (2) Size of holding
- (3) Price mechanism and Incentive
- (4) Poor marketing extension
- (5) Agricultural extension
- (6) Investment and Agricultural credit.

(1) Technical factors

One important way to increase food production is to introduce improved seeds and encourage the use of fertilizers. These materials should be made available to farmers at reasonable prices. Yield can also be increased by the careful use of certain agricultural chemicals in preventing the spread of pests and disease in the field and in stores. There is need for government to continue to give high priority to the subsidization of inputs such as fertilizer, improved seeds, chemicals, and machinery.

(2) Size of holding

The majority of the food produced comes from a large number of very small farms with the result that the average farm (3-4 acres) cannot produce for more than subsistence.

It might be necessary for farmers to jointly cultivate larger acreages in order to derive the benefit of large

scale production. Financial institutions, by making loans available to interested producers could facilitate joint farming.

(3) Price Mechanism and Incentive

Farmers need enough incentive to increase production. Price changes should be announced before production commences and not at the buying season if they are to be effective and beneficial to the farmers. The provision of incentive to farmers is the beginning of a series of events which would lead to increased investment, improved production and a greater demand for modern technology.

(4) Poor Marketing extension

Marketing is an important component in modern agricultural production because it plays a vital part in the provision of the various agricultural inputs and the ultimate end of the final output.

An inefficient marketing system weakens the effect of any production incentive. Some factors, to be considered when marketing food crops are:

- (1) Relationship between producer and consumer price
- (2) Seasonality of prices
- (3) Processing and storage
- (4) Market information
- (5) Transportation.

If these various technical and economic problems are solved the pay-off to the economy will be a substantial increase in food production.

(5) Agricultural extension

A very important need is the dissemination of knowledge of improved farming practices. As it is Government's responsibility to provide agricultural extension personnel it will be necessary for Government to provide such officers giving them adequate transportation and enough incentives to carry out their jobs efficiently.

(6) Investment and Agricultural credit

There is also the need to move away slowly from traditional methods to improved modern methods of production the application of which calls for investment. Certain commercial banks and agricultural development projects have components which make provisions for credit for the production for certain commodities, but usually only the big farmers

benefit from such schemes. The small farmers who provide the greater quantity of our food have to depend on the "loan sharks" at village level. In its bid to solve the rural credit problems the Bank of Sierra Leone has proposed the setting up of Rural Banks at chiefdom level.

It is envisaged that the rural banks would adopt the following strategies among others:

- (1) Village level operation
- (2) Encourage savings habit
- (3) Provide the credit at the time it is required.

Factors affecting nutrition in Sierra Leone

The level of production and quality of animal protein in Sierra Leone are factors affecting the nutrition of the population. In addition there are socio-economic factors.

Because of the climatic condition prevailing in the country the productivity of the national herd is very low and the quality is also poor.

Production costs are also high making the final product very expensive and out of reach of the low income group.

Conclusion

Sierra Leone at the moment is not able to produce enough food stuff to meet the needs of the people and there is not enough foreign exchange to import food supplements. These are important factors which need to be considered when planning for agricultural development.

Agricultural planners should work with nutrition and other social workers so that in drawing up agricultural and nutritional programmes the basic policy should be to concentrate on meeting the present economic needs of the country.

APPENDIX I
OPENING CEREMONY OF THE 1ST NATIONAL
CONSULTATIVE MEETING ON FOOD AND NUTRITION

MRS GLADYS CARROL - SECRETARY CHEN

Introductory Remarks at the Opening Nutrition Ceremony of the 1st National Consultative Meeting on food and nutrition

Your Excellency the U.S. Ambassador to Sierra Leone, Parliamentary Special Assistant, Distinguished Ladies and Gentlemen, It gives me profound pleasure to welcome you all to the 1st National Consultative Meeting on Food and Nutrition in Sierra Leone, organised by the Council for Health Education and Nutrition (CHEN).

We are particularly privilege to have in our midst today the U.S. Ambassador Miss Theresa Healy performing one of her first if not her first public engagement in Sierra Leone. We extend to you a cordial hand of fellowship and hope that your stay in this country will be a fruitful and enjoyable one.

CHEN is also delighted to have Dr. Pines Vice President Transcentury Foundation and responsible for International Nutrition. Mr. Learmonth - of International Planning Incorporation - whose special interest is nutrition planning. Dr. Bohdal of FAO./WHO./OAU. - Food and Nutrition Commission Ghana.

The first two consultants are sponsored by USAID and visiting Sierra Leone for the 1st time. Dr. Bohdal is sponsored by WHO. We also have our keynote speaker Mr. Evans Director REDSO and Mrs. Evans from Abidjan. We hope you will find time to enjoy the beautiful beaches and warm Sierra Leonean Hospitality.

I welcome our participants and observers who represent various Ministries and non Governmental organisations and locally based International Agencies.

To our distinguished guests from all works of life who have taken time off to grace this occasion I say welcome and thank you for your support.

I sincerely hope, infact I can confidently say that at the end of this Consultative Meeting we would all be more aware that malnutrition is a multidisciplinary problem, thus one side of the problem alone cannot be solved,

there is need for attack and I really mean attack on various fronts with the participation of Government, N.G.O., Commercial Houses, etc. For we are aiming at selling nutrition to the Economic Planner, the Agriculturist, the Politician, the Broadcaster, Teacher, Doctor, Home Economist in fact to everyone.

APPENDIX II

Speech Delivered by
DR. BELMONT WILLIAMS - CHIEF MEDICAL OFFICER

Hon. Parliamentary Special Assistant, Your Excellency,
Permanent Secretary, Organisers, Participants, Ladies and
Gentlemen

I must start by welcoming you all here, for you are all very busy people who have taken time to attend the opening ceremony of this National Consultative Meeting on Food and Nutrition. I must also thank the Organizers for giving me the opportunity to chair this opening ceremony, and I must say that I have much pleasure in doing so.

This National Consultative Meeting organized by the Council for Health Education and Nutrition is being held as the result or the implementation of one of the recommendations of the Nutrition Committee which was set up to study the Report of the National Nutrition Survey.

For those of you who may not know much about the Council for Health Education and Nutrition, it is necessary to give some brief background information.

A Council for Health Education had for some years been functioning in Sierra Leone, but in 1967, a National Seminar on Nutrition was held at Njala University College under the joint sponsorship of F. A. O. and UNICEF, and a major recommendation of that seminar was that the Council should be known as Council for Health Education and Nutrition. As the result of this, in August 1969, Government, in Gazette Notice No. 993, established the present Council, under the Chairmanship of the Chief Medical Officer, with Membership drawn from the Ministries of Health, Social Welfare and Rural Development, Education, Agriculture and Natural Resources, Development and Economic Planning. Through the years, organizations with demonstrated interests in improving the Nutritional status of mothers and children in this country were invited to become members of the council. These include the Catholic Relief Services, World Health Organization, Christian Health Association of Sierra Leone, CARE and Fourah Bay College. This Council has concerned itself with strengthening Health Education and Nutrition Programmes throughout the country, and in coordinating such programmes at National and field levels.

In 1978 a National Nutrition Survey was conducted with the assistance of the Nutrition Assessment Unit of the University of California, Los Angeles. This survey was

made possible through the combined efforts of the Ministry of Health, USAID, and the Leprosy Control Programme. I am sure that the survey report and recommendations will be referred to many times during this meeting.

The need for proper nutrition for the population in general and the vulnerable group of mothers and young children in particular, can never be over emphasized. It is therefore hoped that the importance of good nutrition education of all personnel involved in the health care delivery systems as well as all personnel concerned with the well-being of mothers and children will be well brought out during this meeting. It is also hoped that the formulation of a realistic and workable policy on Food and Nutrition in Sierra Leone will be presented at the end of the meeting.

I am pleased to note that Representatives of International Agencies such as USAID, UNICEF, F.A.O., W.H.O., UNDP., CARE., and UNFPA are present at this meeting, in addition to representatives of the various Ministries and other non-Governmental Organisations in Sierra Leone, and we are grateful to the USAID which is co-sponsoring this meeting with the Council for Health Education and Nutrition.

Thank you.

APPENDIX III

SPEECH DELIVERED BY THE MINISTER OF HEALTH ON THE OCCASION OF THE OPENING CEREMONY OF THE NATIONAL CONSULTATIVE MEETING ON FOOD AND NUTRITION - VENUE - BRITISH COUNCIL - MONDAY OCTOBER 13, 1980 - 9.30A.M.

Madam Chairperson,
Your Excellency,
Consultants,
Participants,
Observers,
Distinguished Ladies and Gentlemen,

I feel extremely honoured to be accorded the honour to address and at the same time, welcome you to the opening session of this consultative meeting on food and nutrition in Sierra Leone.

I wish also to place on record my Ministry's concern and that of the Government over the importance malnutrition plays in a developing country like ours, considering the wide-ranging implications that are inherent.

We shall be denying large sections of our Community, the opportunity to assist themselves and to contribute meaningfully towards the developmental strides of the nation if adequate attention is not paid towards nutrition.

In this connection, I wish to state categorically that my Ministry attaches the greatest importance to programmes aimed at improving the nutritional status of the vulnerable groups - viz - pregnant women, lactating mothers and children.

Let me assure you that Government is concerned and committed for that matter, to improve the health care of the individual and the nutritional status of its people.

It will be recalled that in 1976, Government requested the United States Agency for International Development to provide both financial and Technical assistance, with a view to effecting a National Nutrition Survey - The end product of which, was to get valid assessment of the country's Nutritional status and for Government to be in a better position to determine policies and priorities for the planning and administration of applied nutrition programmes.

The National Nutrition Survey was jointly carried out by the Government of Sierra Leone and the United States aid for International Development (USAID) and particularly

my Ministry ... I can clearly recall the meeting held at the Ministry's Headquarters at Gloucester Street, with representatives of USAID at which the results were presented.

Most, if not all of you, are conversant with the results revealing, that a quarter of our child-population under five years is chronically undernourished which is about one hundred and eleven thousand children in the whole country. Approximately thirty percent are underweight and fifty-eight percent are anaemic. This is a pointer to the fact that all types of malnutrition become more prevalent during the second year of one's life span. It is also a known fact that nutritional problems are more prevalent in the Rural Areas.

I am absolutely certain that the deliberations of this four-day meeting will come up with tangible suggestions and recommendations as to how to improve the nutritional status of our children.

That is why I am extremely delighted to see that Consultants, Participants and Observers at this meeting have come from various disciplines, - I must also assure you that Government is convinced that an integrated approach is the only way to achieve maximum success. Government's primary objective is to engage all fields of society with concerted and coordinated effort to attain her basic objective.

Let me take this opportunity to publicly express my profound appreciation and gratitude to USAID for its assistance to the Government of Sierra Leone, particularly in the area of food and nutrition through the years - "We on our part will continue to do our best to bring nutrition at its best to the masses".

To the Council for Health Education and Nutrition especially the nutrition committee - I say - "Well done and keep it up".

To other International Agencies like the FAO, UNICEF, WHO, UNDP - I say thank you for your meaningful contributions.

Distinguished Ladies and Gentlemen, I know you have a full programme ahead of you; - therefore I look forward to your proposals for the formation of a food and nutrition policy and let me end by saying that a nation realises its potential through its children and is judged by what it does to translate positive action into reality.

So in like manner, the success of this meeting will be evaluated by what you recommend to improve the nutritional status of the vulnerable groups especially the children who will be tomorrow's adults.

Madam Chairman, Distinguished Ladies and Gentlemen, it gives me great pleasure to declare this National Consultative Meeting on Food and Nutrition formally open.

APPENDIX - IV
FOOD AND NUTRITION DEVELOPMENT IN WEST AFRICA-APPENDIX-IV

Mr. R.. Gordon Evans - Director REDSO, West Africa
- Keynote Address

Mr. Minister, Chairperson, and Distinguished Guests
I am delighted to be part of your National Food and Nutrition Conference in Freetown and to join with you in thinking about ways in which nutritional needs of your people can be satisfied more effectively. I am pleased, particularly, to be invited to give the key-note address before such an august group of experts who obviously know much more than I about nutrition needs and programmes in Sierra Leone.

Nutritional Needs

Hunger is a serious problem in Africa. If production and consumption trends continue, Sub-Sahara Africa will produce 37 million tons less food than needed in 1990 to supply dietary needs^{1/}. With foreign exchange becoming increasingly less available to finance food imports, hunger and malnutrition are more probable.

Malnutrition, at the same time, is a primary cause of poor health, and a major reason that, in some rural areas, as many as half the children die before age five. In turn, the causes of malnutrition are almost always numerous and complex but reflects the quantity of food consumed, the human body's ability to utilize it, and cultural and taste preferences. Causes, however, are a function of a broad range economic, social, and environmental factors.

In order to understand the causes of malnutrition, and plan for control, one must consider interrelating factors: (1) production; (2) distribution, storage and marketing; (3) consumption; and (4) biological utilization. A carefully planned nutrition survey, analyzed in the context of other available information, can help identify causes of malnutrition within a population.

Undernutrition, i.e., lack of sufficient calories and/or specific nutrients, adversely affects mental and physical development, productivity and the span of working years, all of which influence the quality of an individual's life and economic potential. The most serious hunger and malnutrition are among the urban poor, subsistence farmers, and

^{1/} International Food Policy Research Institute (IFPRI), Food Needs of Developing Countries, December 1977, p.69.

rural landless workers. Within these groups, young children, and pregnant and nursing women, are most vulnerable.

In Africa, the principal nutritional disorder is protein calorie malnutrition (PCM). Nutritional anaemia and endemic goitre are widespread and in some areas certain vitamin deficiencies are prevalent. The combination of malnutrition, parasites and infectious diseases results in a high incidence of childhood mortality and morbidity. Many women also have a high risk of malnutrition because of added nutrient demands during child-bearing years, especially during pregnancy and breast feeding. Nutritional deficits in this segment of the population cause health problems for the mother as well as the children they bear.

According to FAO estimates, average consumption is below FAO minimum daily calorie intake per capita in 16 of the 20 countries in West and Central Africa. FAO/WHO recommends a daily minimum of 37 grms/day/adult male and 46 grms/day/lactating female. These data, however, do not indicate differences in food availability within a country, between seasons, or within households.

Food Production

A Primary human need of households in West Africa for adequate nutrition is a reliable supply of food. However, the food supply of many rural households is not reliable. Instability of food supply is responsible for many malnutrition and health problems and high mortality among children. The main food problem is the variability of production and the inability of small farmers to protect themselves from the causes of fluctuating production. Nutrition and agriculture programs in West Africa have not succeeded fully in addressing the food needs of the rural population.

In sub-Saharan Africa, for example, the population grew 2.6% annually during 1960-1975, exceeding the 2.3% growth of food production. Food insecurity, therefore, increased. In much of West Africa, long-term annual growth of food staples has been below 0.5% or even negative. As a result, food quantities imported during the late 1970's were higher than during the 1960's and many countries are now less self-sufficient than in the 1960's.

Sierra Leone is an example of these problems. Total food production in 1979 was 20% more than the average year in 1961-1965, but food output per person was 17% lower because population increased 45%. Net imports of grains were 10% of consumption¹/. A few years ago, Sierra Leone was self-sufficient in production of rice, but now substantial amounts of rice are imported. The FAO Food Balance

for Sierra Leone (1975-1977) reveals that food production was inadequate to meet total calories or protein requirements. Of particular interest was the low amount of animal and vegetable protein being produced, which was only 47.7% of the total requirement.

Food production trends in West Africa have significant implications for national development policies. Development efforts, thus far, have not halted or reversed the decline in food independence which suggests that both national and donor development programmes should concentrate even more toward increasing agricultural productivity and production. Therefore, more attention needs to be given to directly productive activities which increase incomes in the medium term, as opposed to agricultural infrastructure and other programs which have mainly long-term impact.

National Nutrition Planning

National nutrition planning in developing countries is relatively recent. During the last decade considerable progress has been made in establishing the extent and causes of malnutrition and what can be done to reduce it.

Ten years ago, malnutrition was often thought to result primarily from a shortage of protein, and in some cases vitamins or minerals. Most nutrition programmes concentrated on providing high-protein food to children in schools. According to the World Bank, emphasis today is different, because of growing concerns on five general conclusions^{1/}.

First, serious and extensive nutritional deficiencies occur in nearly all developing countries. However, nutritional deficiencies are caused primarily by a shortage of food, not by imbalance between calories and protein. Shortages of specific micronutrients and protein may occur, especially among young children. However, given the typical composition of diets of poor families, if calorie requirements as estimated by FAO and WHO are met, other nutritional needs also are usually satisfied.

Second, malnutrition affects old and young, male and female, urban and rural dwellers, particularly reducing the resistance of children under five to diseases. In some societies, girls suffer more than boys.

Third, malnutrition is associated with poverty and inadequate income. Given the slow income growth of poor

^{1/} USDA, Global Food Assessment 1980, p.59 and USDA, Indices of Agricultural Production 1970-79, p.30

^{1/} IBRD, World Development Report, 1980 p.59

families that is likely in the foreseeable future, large numbers of families will remain malnourished for decades to come.

Fourth, poor nutritional practices and inequitable distribution of food within families also cause malnutrition.

Fifth, the most effective, long-term policies are those that increase incomes and food production per person. Other beneficial policies include food subsidies, nutrition education, adding minerals or vitamins to salt and other processed foods, and increasing emphasis on production of foods typically consumed by the poor.

These new conclusions by the World Bank remind us again that national nutrition strategies and programmes should be a multipronged approach aimed at increasing agricultural production and food security, particularly of rural households, as well as nutrition education to help families utilize available food effectively.

AID Objectives and Programmes

The assurance of an adequate diet for everyone is a primary goal of AID's assistance efforts in Africa and the mandate of the U.S. International Development and Food Assistance Act. Freedom from hunger is a basic human right and the U.S. Congress, in the 1976 Right to Food Resolution, made it a fundamental objective of U.S. foreign assistance policy.

Top nutrition priorities for AID in West and Central Africa are to assist families to produce and consume adequate quantities of food while, at the same time, helping them benefit from preventive health measures. Achieving these objectives requires programs to improve local conditions of food production, storage, marketing and processing as well as small-scale, simple improvements of farming methods. Nutrition and health education can help families make the best use of locally available nutritious foods, encourage breast feeding, advise mothers on supplementary and weaning foods, and assist people to improve environmental sanitation.

Several AID programmes throughout West Africa contain nutrition components. Most of the health and some of the rural development projects, stress nutrition surveillance, improvement and education. SHDS, a \$20 million regional project in West Africa to strengthen health delivery systems, stresses nutrition. Because of the integrated and regional approach to nutrition planning and education, few

AID projects deal solely with nutrition. The AID 1981 budget proposed \$147.0 million in support of agriculture, rural development and nutrition activities in Africa, 45.4% of total assistance to African countries.

In September 1978, President Jimmy Carter established a Presidential Commission on World Hunger which submitted its report in March of this year. The Commission concluded that the world hunger problem is getting worse, rather than better, and recommended that the United States make elimination of hunger the primary focus of its relationship with developing countries during the decade of the 1980's. The Commission also recommended that world food security be strengthened by establishing a global system of reserves, creating a U.S. reserve to support P.L. 480 commitments, and giving far higher priority within U.S. development assistance programs to requests for help in planning, financing and implementing nutrition activities to meet national nutrition targets of developing countries.

Strategies for Enhancing Nutritional Well Being

With your consent, I would like to suggest a few strategies, particularly in the agricultural sector, for improving the nutritional well being of rural families.

First, rural families can increase production of indigenous legumes, pulses, and oil seeds which (a) nutritionally complement protein from rice and other grains; (b) produce food energy efficiently per unit of farm input; (c) require minimal agricultural inputs, e.g., nitrogen fertilizers and controlled water supplies; (d) supply cottage industries, such as fermented products and infant weaning foods; and (e) have a local and international market.

Second, cropping systems are needed that provide nutritionally adequate food all year. More attention can be paid to eliminating the annual hungry season during which energy and protein intakes fall well below requirements for two months or more.

Third, on-farm storage and preservation techniques can be improved and expanded which can help reduce substantial losses of grains, vegetables, and other foods. Increased on-farm storage also enhances the independence and food security on farm families.

Fourth, rural and urban vegetable gardening activities can be encouraged. Vegetable gardens provide valuable nutrient-rich foods for the family diet and can be good source of income. Vegetables and fruits to be grown include: legumes, bambara groundnuts, cabbage, tomatoes,

green peppers, greens of all kinds, corn, squash, pumpkin, okra, mangoes, papaya, citrus fruits, pineapple and melons.

Fifth, nutrition training for agricultural policy makers and technicians can be improved.

Sixth, a national nutrition surveillance system is needed. Such a system would collect data at least quarterly on agricultural production, rainfall, market food prices and family nutritional status. An adequate surveillance system would make information available to policy-makers regarding high risk areas and effects of agricultural activities on nutrition status.

Seventh, labour saving technology is needed for women's agricultural tasks. The time and energy spent on agricultural activities for which women are responsible, such as weeding, harvesting, threshing, and vegetable gardening, could be decreased by the introduction of improved utensils, seeds, and production techniques. In addition, safe water supplies close to vegetables plots and homes can save hours of labour.

Eighth, production of animal protein can be encouraged. Small ruminants and inland fish ponds can provide much needed, inexpensive protein and other nutrients for rural diets. Goats and sheep are traditionally raised and can be improved through better animal health. Fish grown in inland ponds can be an acceptable and valuable source of nutrients to complement rice dominated diets.

Ninth, food costs can be reduced through increased productivity. The high cost of food items rich in nutritional value is a serious problem for large parts of the population.

Finally, food crops should receive as much attention as cash crops. Consideration should be given to growing food crops on the same farms as cash crops and in vegetable gardens to ensure a minimum supply of staples and nutrient-rich foods which can be supplemented with food purchases from markets.

Conclusion

Although I am speaking to experts, I hope my remarks have given a few new facts and insights, as well as provoked further thinking by all of us about how to do our respective jobs more effectively. Freedom from hunger is a basic human right which, unfortunately, is not free. We must all work hard and well to be free from hunger and malnutrition. I wish you well in this task.

APPENDIX V

FORMAL CLOSING OF SEMINAR:

BY

Honourable Dr. S.S. Banya
Minister of Development and Economic Planning

It is an honour for me to be invited to close this very important Conference on Food and Nutrition. It is my understanding that during the last three days you have been deliberating on what I regard as one of the most urgent problems of Sierra Leone - that of feeding its growing population so that hunger is prevented, malnutrition is alleviated, and the general nutritional status, especially of the vulnerable group, is improved. I am sure that, in doing so, you did examine and discuss the recommendations of the Report of the Sub-Committee on Nutrition of the Council for Health Education and Nutrition which provides guidelines for the future direction of nutrition programmes in this country.

Today, it seems to me, that next to the problem of searching for peace in the world, there is no problem more serious than that of guarding against the growing imbalance between population and food requirements. It is fortunate and important therefore that your conference is taking place at a time when we are taking a look at our developing effort and giving increasing attention to the efficient production and utilization of our food resources in this country. No nation determined to chart the course of its destiny can afford the burden of a people weakened by malnutrition. The key to national development is vigour, and the measure of progress is the dimension of growth in the people's quality of life, the degree to which citizens are freed from the sheer struggle for survival and can apply their efforts to strengthening the fabric of the State.

I am informed that in your deliberations you have highlighted and perhaps emphasised, that a deep understanding of the relationship between health, education, agriculture and planning is essential to the resolution of problems of economic development and social progress. Economists concerned with problems of development, and other specialists concerned with social questions, testify to the interdependence of economic development and well-fed population. If a population does not have enough food to eat it cannot make the necessary efforts for national development. I am therefore pleased that this conference has left a conscious awareness that there are few aspects of our work-life which do not border either immediately or

even distantly on better nutrition. Economic development means more work and for more work more food energy is needed.

However, a reduction in working capacity is not the only way in which malnutrition may slow economic development. The drain on the nation's economy for the cost of maintaining the health of the population must also be taken into account. This conference has shown that there are many aspects to the problem of keeping our nation well-fed, and that all of these aspects have to be considered in planning. We must not only consider the high infant mortality rate, which by itself is important, but that nutrition plays a role in the education of children in and out of school, as well as adults in all works of life.

Again, one cannot and must not divorce consideration of the nutritional status from that of the agricultural production of a country. Agriculture is undoubtedly the basic strength of our economy and the underlying factor of our nutritional problems. The problem of feeding the overgrowing population has become even more important as evidenced by last year's shortage of our staple food, rice. I am happy to note that you have highlighted the advantages of increasing food crop production to compensate for the effects of demographic growth; as well as examined the ramifications of storage, distribution, marketing, food legislation and the social, cultural and psychological influence on people's diet. These are important aspects in the process of getting the food from the farm to the mouth and stomach of the individual. Therefore, parallel to the increase of agricultural products a food policy in the true sense will have to be put in practice. To achieve this it will be desirable to institute programmes that will educate not only mothers and children but the whole nation on the meaning of nutrition. In our society ignorance is a big problem, for even those with enough money need to be taught how to wisely use such money to prepare better meals for themselves and their families.

The fight against nutritional deficiencies and the development of programmes for increased production of food crops are primarily the responsibility of the Ministries of Health and Agriculture respectively. But the implications for infrastructural development and for education are quite obvious. The responsibility therefore should be shared by all Ministries concerned in raising the levels of living of the population. There is no simple route to improved nutrition in a nation; every avenue of national growth must be applied to the purpose. Policies, plans and strategies must be elaborated, which define the roles

and alternatives available to each of the sectors of national life in which improvement depends. National development strategies such as general economic improvement, improved food production and distribution, improved health care and expanded access to education and occupational training - all contribute to nutritional improvement.

Let me therefore re-emphasise the importance my Ministry and the Government attaches to the subject of food and nutrition. We believe in the value of improved nutritional health; that unless we are prepared to invest in it we are unlikely to achieve this goal for the population. It is with great interest that I await the recommendations of this conference. We believe that there are many opportunities to establish and ensure significant programmes to combat malnutrition, to encourage indigenous efforts and community development while paying particular attention to increased agricultural production. We recognize the constraints to implementing some of the recommendations you have made. While we do not want to be continually dependant on foreign aid to solve our food and nutrition problems, yet as matters stand we need more aid to face the task ahead of us in this decade.

It is on this note that I would like to acknowledge on behalf of Government, the contributions made by all the international agencies and non-governmental agencies represented at this conference, in helping us to seek practical solutions to our pressing problems, and offering assistance in many ways. You would however agree with me that no amount of foreign aid can replace the local efforts to confront the nutrition problems as they exist and to develop and consolidate concrete policies aimed at their solution. Therefore, I wish especially to acknowledge the initiative and foresight of our local nutritionists and planning committee in organising this conference and to the United States Agency for International Development for the resources made available to the local committee for the conference.

Finally let me assure you on behalf of my Ministry that we are committed to act upon the important recommendations you have put forward. One such recommendation I have learnt is the establishment of a Food and Nutrition Commission. But bearing in mind that we already have a Council for Health Education and Nutrition, perhaps we ought to look at this recommendation more closely so as to avoid any duplication of effort, resources and manpower.

A tremendous stride has been taken in this country in the field of nutrition since the last National Conference held at Njala University College in 1967 in which I was an

active participant. Hopefully, we shall take even bigger and quicker strides by the next National Conference which in my opinion should focus on evaluating what would have been achieved after this Conference.

It is now my duty to declare this Conference closed.

Appendix VI
RECOMMENDATION FROM SECTORAL WORKING GROUPS

Research Working Group

The research working group recommends:

1. the collection, compilation and cataloguing of reports of all food and Nutrition studies and programmes so far undertaken.
2. that further research work should be of an applied, action oriented nature aimed at solving specific problems so far identified, i.e. various strategies should be tried out in order to determine the most effective in improving nutritional status.
3. that research activities directly recommended in the various nutrition survey reports be planned in the light of (2) above.
4. that the following are potential research areas and should be examined in the light of (2) above.
 - (a) Household surveys into the patterns of food distribution and consumption.
 - (b) Methods of modifying harmful food taboos and beliefs.
 - (c) Identification and analysis of nutritionally useful local foods.
 - (d) Investigation into appropriate technology in food storage, processing and preparation at the family level.
5. that an adequate system for disseminating information in respect of past and on-going research be developed.
6. that research activities be co-ordinated by the proposed Institute for Food and Nutrition Training and Research when it comes into being, but in the meantime the Council for Health Education and Nutrition should perform this function.

Working Group

- | | |
|----------------|--|
| Mrs. P. Greene | - Nutritionist |
| Mrs. Z. Jannah | - Ministry of Social Welfare and Rural Development |
| Dr. W. Sannoh | - Njala University College |

Dr. H. Faulkner	- Nutrition Society
Mrs. M. Rogers	- Njala University College
Dr. N. Pratt	- Fourah Bay College
Mrs. R. Davies Venn	- Ministry of Natural Resources (Fisheries Division)
Miss A. Hankinson	- CUSO

AGRICULTURE

The group recognised that our present agricultural policy is primarily focused on increased production of cash crops and our staple food, rice, with little emphasis on the overall nutritional needs of the people.

The group strongly recommends that agricultural planners must now take greater cognisance of the importance of nutrition and ensure that suitable nutritional components be integrated into agricultural policies and programmes.

(1)- To that end it is recommended:

that in order to achieve this objective, a Nutritionist be appointed at PEMSU (Projects Evaluation Monitoring and Services Unit) of the Ministry of Agriculture and Forestry. This should be done right at the beginning of the project planning period.

(2) - that in the absence of a trained Nutritionist, Consultant help be obtained from one of the international agencies.

(3) - that Agriculturists and other staff already in the field receive additional training in nutrition, and that nutrition be introduced into all training programmes in Agriculture.

(4) - that the number of professional staff be adequately increased.

(5) - that the services of the rural banks that are soon to be set up be made available to both women and men so that with such loan facilities women can improve their agricultural output.

Working Group

Mrs. S. Harleston	- Ministry of Agriculture and Forestry
Mr. P.J. Senesi	- Ministry of Development and Economic Planning

Mr. I. May Parker - Bank of Sierra Leone
 Mr. C. Uphause - U. S. A. I. D., Freetown
 Mr. Dennis Morgan - Sierra Fishing Company
 Mrs. F. Dahniya - Njala University College
 Mrs. G. Carrol - Secretary spent some time with each group

Education and Training needs in Nutrition

1. - that teachers in the fields of Home Economics, Social Studies and Agriculture be trained in Nutrition Education.
2. - that nonformal educators such as adult literacy workers, Agricultural and Health Extension workers.*See below
3. - that additional staff trained in the teaching of nutrition be employed at the University and other teacher training colleges.
4. - that an institute for Food and Nutrition Training and Research be established among other functions to:-
 - (i) - co-ordinate Nutrition Education activities in the various Ministries and non Governmental Organisation.
 - (ii) - define the roles of the different professionals and workers involved in nutrition education programmes.
 - (iii) - examine the existing health and nutrition curricula at all levels and be given the mandate to suggest changes to these curricula.
 - (iv) - censor nutrition and health information before dissemination by the mass.
5. - that appropriate technology for the processing storage and cooking of local food stuff be developed.
6. - that edequate supplies of the technologies and other equipment required for the teaching of nutrition be made available for training institutions.

* to be trained in nutrition

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Dr. I. Aitken - Fourah Bay College
Mr. T. Macauley - Ministry of Health
Miss M. Tyler - CUSO
Mrs. J. Wilson - Ministry of Education
Mr. D. Hamilton - I. D. A.

Recommendation from the Sectoral Working
Group on Health

Recognizing the widespread nature of malnutrition within the country it is recommended that

- (1) a system of surveillance be established to monitor the changes its severity and pattern of distribution, among the vulnerable groups.
- (2) where possible a surveillance system be integrated into existing services.
- (3) a Consultant be recruited to help in the establishment of the system.

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Dr. Bohdal - W.H.O.
Dr. M. Davies - W.H.O.
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Mr. B. Gbolie - Ministry of Health
Mrs. F. Makiu - Ministry of Social Welfare and Rural
Development
Mrs. E. DeGrange - Ministry of Health
Dr. Gba Kamara - Ministry of Health

Recommendations from Sectoral Working Group
on Social Welfare and Rural Development

With respect to the Bennimix project established in Bo it is recommended that:

1. - consumer studies be carried out on the Bennimix to establish its potential market, the rate of household consumption and possible methods of distribution and marketing.
2. - Government should take action to expand the factory to meet the already established demand for the product.
3. - the project should be converted into a Government owned commercial enterprise and subsidized if necessary to maintain an acceptable price for the product.
4. - the necessary senior staff should be recruited.
5. - the supply of raw materials be ensured through appropriate price incentives to farmers.

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Walpole Street,
Freetown,
Sierra Leone.
14. Miss Darlinda Thomas,
Projects Officer,
National Authorising Office,
Office of the 1st Vice President,
Tower Hill,
Freetown,
Sierra Leone.

Appendix VIII

Working Groups

EDUCATION

Mrs. Elias	- Ministry of Education
Mrs. E. Davies	- Milton Margai Teachers College
Dr. Aitken	- Fourah Bay College
Mr. T. Macauley	- Ministry of Health
Miss M. Tyler	- C.U.S.O.
Mrs. J. Wilson	- Ministry of Education
Mr. D. Hamilton	- I.D.A.

RESEARCH

Mrs. P. Greene	- Institute of Education
Mrs. Z. Jannah	- Ministry of Social Welfare and Rural Development
Dr. W. Sannoh	- Njala University College
Dr. H. Faulkner	- Nutrition Society
Mrs. M. Rogers	- Njala University College
Dr. N. Pratt	- Fourah Bay College
Mrs. R. Davies Venn	- Fisheries
Miss A. Hankinson	- C.U.S.O.

NUTRITION POLICY AND PLANNING

Dr. J. Pines	- U.S.A.I.D.
Mr. R. Learmonth	- U.S.A.I.D.
Mr. V. Brandon	- Ministry of Development and Economic Planning
Mrs. E. Mason	- Fisheries
Mr. Amadu Jalloh	- U.N.D.P.
Miss D. Thomas	- N.A.O.
Mrs. Hastings Spaine	- Ministry of Education
Mrs. E. Beresford Cole	- P.P.A.
Mrs. E. Richards	- Ministry of Development and Economic Planning
Dr. P. Bulengo	- W.H.O.

SOCIAL WELFARE

- | | |
|------------------|--|
| Dr. H. Thomas | - Ministry of Social Welfare and Rural Development |
| Mr. F. Seisay | - C.R.S. |
| Mrs. S. Kawa | - Ministry of Health |
| Mrs. Spaine Cole | - Ministry of Health |
| Mr. B.T. Johnson | - Ministry of Agriculture and Forestry |
| Mrs. G. Weekes | - Ministry of Health |
| Mrs. E. Anderson | - Midwives Association |

HEALTH

- | | |
|--------------------|--|
| Mr. J. DeHarpporte | - Catholic Relief Services |
| Dr. M. Wright | - Ministry of Health |
| Mrs. C. Pratt | - Ministry of Health |
| Dr. Bohdal | - W.H.O. |
| Dr. M. Davies | - W.H.O. |
| Mrs. R. Iscandri | - Nutrition Society |
| Mrs. Kassim | - P.P.A. |
| Mr. B. Gbolie | - Ministry of Health |
| Mrs. F. Makiu | - Ministry of Social Welfare and Rural Development |
| Mrs. E. DeGrange | - Ministry of Health |
| Dr. Gba Kamara | - Ministry of Health |

AGRICULTURE

- | | |
|-------------------|---|
| Mrs. S. Harleston | - Ministry of Agriculture and Forestry |
| Mr. P. Senesi | - Ministry of Development and Economic Planning |
| Mr. I. May Parker | - Bank of Sierra Leone |
| Mr. C. Uphause | - A.I.D. |
| Mr. Dennis Morgan | - Sierra Fisheries |
| Mrs. F. Dahniya | - Njala University College. |
| Mrs. G. Carrol | - Secretary spent some time with each group. |

NATIONAL CONSULTATIVE MEETING
ON
FOOD AND NUTRITION IN SIERRA LEONE
BRITISH COUNCIL HALL, FREETOWN, SIERRA LEONE
13th to 16th October 1980

Day 1 13th October Monday

MORNING

8.30-9.30

Registration

9.30-11.00

Official Opening

1. Introduction of Chairperson - Mrs. G. Carrol (Secretary CHEN)
2. Opening Remarks by Chairperson:-
 Dr. Belmont Williams
3. Opening Address - Minister of Health
 Hon. Harry Williams
4. Keynote paper - Mr. Gordon Evans -
 Director R.E.D.S.O.
5. Remarks by the U.S. Ambassador -
 Miss Theresa Healy
6. Vote of Thanks - Mrs. Elias - Senior
 Organiser, Home Economics

11.00-11.30

Refreshments

11.30-12.30

Briefing and Orientation: Mrs. G. Carrol
Presentation of Subcommittee report
Programme and Expectations

12.30-2.00

LUNCH

2.00-5.00p.m.

AFTERNOON

Chairperson:- Dr. S. George - Acting
Deputy Chief Medical Officer.

2.00-2.30

1. Background Information "The Nutritional problems of Sierra Leone" -
 Dr. N. Pratt

2.30-3.30

2. Introduction to Nutrition Planning
 Pines/Learmonth

3.30-3.45

BREAK

3.45-4.30 Introduction to Nutrition Planning - Pines/
Learmonth

4.30-5.00 General Discussion

Day 2 14th October Tuesday

MORNING

Chairperson:- Mrs. E. Richards

8.30-9.30 Background Papers (10 minutes each)

1. Ministry of Health (Status Report)
2. Ministry of Social Welfare (Status -
Report)
3. Ministry of Agriculture (Status Report)
4. Ministry of Education (Status Report)
5. Ministry of Natural Resources (Status-
Report)

9.45-10.15 CARE., CRS., CHASL.

10.30-12.30 Nutrition Planning - Dr. Pines
Nutrition Planning Based on the Lesotho
Experience - Robert Learmonth

12.30-2.00 LUNCH

2.00- 4.00 p.m. AFTERNOON

Chairperson:- Mrs. E. Mason - Senior Fish-
eries Officer

2.00-2.30 1. The Role of Weaning Foods in solving
Malnutrition by Dr. H. Thomas

2.30-3.00 2. Nutrition Education and Training Needs
by Mrs. P. Greene

3.00-3.30 3. Womens Involvement in Agriculture by
Mrs. S. Harleston

3.30-4.00 4. Influences of Environmental Factors on
Nutritional Status by Mrs. F. Dahniya

4.00-5.00 Disucssion.

Day 3 15th October Wednesday

MORNING

Chairperson:- Mrs. R. Forde

8.30-9.00 Nutrition Surveillance - Dr. Pines and Learmonth

9.00-9.30 Population Dynamics in Relation to Food and Nutrition - Dr. B. Kandeh

9.30-10.00 Discussion

10.00-10.15 BREAK

10.15-12.00 Sectoral Working Groups.

Study of Nutrition Committee Report and Recommendations.

Health - Nutrition Surveillance

Agriculture - Integration of Nutrition into Agricultural Programmes and Policies

Education - Training Needs - Primary Secondary and University Levels.

Social Welfare-Evaluation and improvement of the Bennimix Project.

Nutrition Policy and Planning --National Food and Nutrition Commission

Nutrition Research.

12.00-12.30 Recommendations from Subgroups

12.30-2.00 LUNCH

2.00-5.00 AFTERNOON

Chairperson:- Mrs. Mary Rogers

2.00-2.30 Macro Economic Issues Affecting Nutritional Status - Mr. I. May Parker

2.30-3.30 Discussion - Mr. C. Uphause, Mr. Newman Samuels,
Mr. Olu Williams

3.30-4.15 Sectoral Working Groups of a National Food and Nutrition Commission - Pines/Learmonth

4.15-5.00 Food and Nutrition Training and Research

Day 4

16th October Thursday

MORNING

Chairperson:- Mr. C.B. Seisay - Deputy
Chief Agriculturist

8.30-9.45

Sectoral Working Groups

9.45-10.00

BREAK

10.00-11.30

General Discussion

11.30-12.00

Resume of Recommendations. - Dr. Gba Kamara

AFTERNOON

3.00-4.00

Closing

Chairperson:- Mr. Tuboku Metzger

1. Remarks by Chairperson
2. Presentation of Recommendations
Chairman C.H.E.N. - Dr. Belmont-
Williams
3. Remarks by USAID Consultant
FAO Consultant
WHO Consultant
4. Closing Address - Dr. S.S. Banya, Mini-
ster of Development and Economic Plan-
ning
5. Vote of Thanks - Mrs. P. Greene -
Chairman Nutrition Committee.

REFRESHMENTS